Federal Aviation Administration



Final Environmental Impact Statement for the Spaceport America Commercial Launch Site, Sierra County, New Mexico

VOLUME II, APPENDICES

NOVEMBER 2008

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APPENDIX A
AGENCY, TRIBAL, AND ENTITY CORRESPONDENCE

Note: Not all correspondence between the FAA and Agencies, Tribes, and Entities is included. Correspondence between the FAA and the Applicant is also not included.

Agency/Entity	Purpose of Correspondence	Corresponding Agency	Date of Correspondence
FEDERAL AGENCY CORRESPONDENCE			
Advisory Council on Historic Preservation (ACHP)	The FAA initiates consultation per New Mexico State Historic Preservation Officer's request.	FAA	4/3/07
	ACHP's reply containing comments on Section 106 process and encouraging the FAA to consult with all consulting parties.	ACHP	5/21/07
	The FAA's request for review of on-site cultural survey report.	FAA	8/31/07
	ACHP's response that they received the cultural survey report and will informally monitor the consultation process.	ACHP	9/17/07
	The FAA's request for review of off-site cultural survey report.	FAA	5/30/08
	The FAA's request for review of the onsite report's Setting APE analysis chapter.	FAA	7/03/08
	The FAA's distribution of the final cultural survey reports and FAA's determination of eligibility and effect.	FAA	8/26/08
	The FAA's invitation to ACHP to formally participate in the Section 106 process to resolve adverse effects and develop a Memorandum of Agreement.	FAA	9/02/08

Agency/Entity	Purpose of Correspondence	Corresponding Agency	Date of Correspondence
	ACHP's response that they will participate in Section 106 consultation to resolve adverse effects and develop a Memorandum of Agreement	ACHP	9/10/08
National Aeronautics and Space Administration	Memorandum of Agreement.	FAA	8/3/07
	The FAA's request for comment on cultural survey reports and attendance at September 2007 meeting.	FAA	8/15/07
	The FAA's request for review of on-site cultural survey report.	FAA	8/31/07
	The FAA's request for review of off-site cultural survey report.	FAA	5/30/08
	The FAA's request for review of the onsite report's Setting APE analysis chapter.	FAA	7/03/08
	The FAA's distribution of the final cultural survey reports and FAA's determination of eligibility and effect.	FAA	8/26/08
U.S. Army Corps of Engineers (USACE)	The FAA's request for determination of whether the project vicinity contains waters of the U.S.	FAA	5/1/07
	USACE's concurrence that the project vicinity does not contain waters of the U.S.	USACE	5/23/07
U.S. Department of Agriculture – Natural Resources Conservation Service (NRCS)	The FAA's request for review of project vicinity and whether Farmland Protection Policy Act applies.	FAA	3/24/06
	NRCS statement of no prime or important farmland in project vicinity.	NRCS	3/23/07

Agency/Entity	Purpose of Correspondence	Corresponding Agency	Date of Correspondence
U.S. Department of Defense – Army, White Sands Missile Range (WSMR)	The FAA's request for WSMR to participate as a cooperating agency.	FAA	1/11/06
	Memorandum of Agreement.	FAA	9/11/06
	WSMR's comments on Preliminary Draft EIS.	WSMR	9/26/06
	The FAA's request for comment on cultural survey reports and attendance at September 2007 meeting.	FAA	8/15/07
	The FAA's request for review of on-site cultural survey report.	FAA	8/31/07
	The FAA's request for review of off-site cultural survey report.	FAA	5/30/08
	The FAA's request for review of the onsite report's Setting APE analysis chapter.	FAA	7/03/08
	The FAA's distribution of the final cultural survey reports and FAA's determination of eligibility and effect.	FAA	8/26/08
U.S. Department of the Interior – Bureau of Land Management (BLM)	The FAA's request for BLM to participate as a cooperating agency.	FAA	1/11/06
	BLM's acceptance to participate as a cooperating agency.	BLM	2/6/06
	Memorandum of Agreement.	FAA	6/20/06
	BLM's comments on Preliminary Working Draft EIS.	BLM	10/11/06
	BLM's comments on Preliminary Working Draft EIS.	BLM	10/13/06

Agency/Entity	Purpose of Correspondence	Corresponding Agency	Date of Correspondence
	The FAA's request for comment on cultural survey reports and attendance at September 2007 meeting.	FAA	8/15/07
	The FAA's request for review of on-site and off-site cultural survey reports.	FAA	8/31/07
	BLM's comments on off-site cultural survey report.	BLM	10/10/07
	BLM's comments on the on-site cultural survey report.	BLM	10/12/07
	The FAA's request for review of off-site cultural survey report.	FAA	5/30/08
	BLM's comments on the off-site cultural survey report.	BLM	6/25/08
	BLM's comments on the off-site cultural survey report.	BLM	7/9/08
	The FAA's request for review of the onsite report's Setting APE analysis chapter.	FAA	7/03/08
	BLM's comments on the Setting APE analysis chapter.	BLM	8/18/08
	The FAA's distribution of the final cultural survey reports and FAA's determination of eligibility and effect.	FAA	8/26/08
	BLM's concurrence with the FAA's determinations of eligibility and effect of the project on historic properties.	BLM	9/12/08
U.S. Department of the Interior - Fish and	The FAA initiation of informal consultation in accordance with Endangered Species Act.	FAA	3/8/06

Agency/Entity	Purpose of Correspondence	Corresponding Agency	Date of Correspondence
Wildlife Service (USFWS)	The FAA's request for review of on-site and off-site biological survey reports and concurrence with determination of not likely to jeopardize the northern Aplomado falcon.	FAA	12/5/2007
	USFWS's concurrence on determination of "not likely to jeopardize" for experimental population of northern Aplomado falcon.	USFWS	1/23/08
	The FAA's request for review of water well field biological survey report and concurrence with determination of "not likely to jeopardize" the northern Aplomado falcon.	FAA	8/20/08
	USFWS's concurrence on determination of "not likely to jeopardize" for experimental population of northern Aplomado falcon.	USFWS	8/26/08
U.S. Department of the Interior – National Park Service (NPS)	NPS's request to participate as a cooperating agency.	NPS	5/3/06
	The FAA's response to NPS's request to participate as a cooperating agency.	FAA	6/2/06
	Memorandum of Agreement.	FAA	7/17/06
	NPS's comments on Preliminary Draft EIS.	NPS	10/11/06
	The FAA's request for comment on cultural survey reports and attendance at September 2007 meeting.	FAA	8/15/07
	The FAA's request for review of on-site cultural survey report.	FAA	8/31/07

Agency/Entity	Purpose of Correspondence	Corresponding Agency	Date of Correspondence
	NPS's comments on the on-site cultural survey report.	NPS	10/12/07
	The FAA's request for review of the off-site cultural survey report.	FAA	5/30/08
	The FAA's request for review of the onsite report's Setting APE analysis chapter.	FAA	7/03/08
	NPS's comments on the off-site cultural survey report.	NPS	7/09/08
	NPS's comments on the Setting APE analysis chapter.	NPS	8/18/08
	The FAA's distribution of the final cultural survey reports and FAA's determination of eligibility and effect.	FAA	8/26/08
STATE AGENCY CORRESPONDENCE			
New Mexico Department of Transportation (NMDOT)	The FAA's request for comment on cultural survey reports and attendance at September 2007 meeting.	FAA	8/15/07
	The FAA's request for review of on-site cultural survey report.	FAA	8/31/07
	NMDOT's comments on the on-site cultural survey report.	NMDOT	11/5/07
	The FAA's request for review of off-site cultural survey report.	FAA	5/30/08
	NMDOT's comments on the offsite cultural survey report.	NMDOT	7/03/08
	The FAA's request for review of the onsite report's Setting APE analysis chapter.	FAA	7/03/08
	NMDOT's comments on the on-site Setting APE analysis chapter.	NMDOT	7/18/08

Agency/Entity	Purpose of Correspondence	Corresponding Agency	Date of Correspondence
	The FAA's distribution of the final cultural survey reports and FAA's determination of eligibility and effect.	FAA	8/26/08
New Mexico State Historic Preservation Officer (SHPO)	The FAA initiates Section 106 consultation requesting concurrence on Area of Potential Effect (APE).	FAA	10/16/06
	SHPO's response including clarifying questions on APE and EIS.	SHPO	11/20/06
	The FAA's request for comment on cultural survey reports and attendance at September 2007 meeting.	FAA	8/15/07
	The FAA's request for review of on-site cultural survey report.	FAA	8/31/07
	SHPO's comments on the on-site cultural survey report.	SHPO	10/31/07
	The FAA's request for review of off-site cultural survey report.	FAA	5/30/08
	The FAA's request for review of the onsite report's Setting APE analysis chapter.	FAA	7/03/08
	SHPO's comments on the off-site cultural survey report.	SHPO	7/16/08
	The FAA's distribution of the final cultural survey reports and FAA's determination of eligibility and effect, and request for concurrence.	FAA	8/26/08
	SHPO's concurrence on the FAA's determinations of eligibility and effect of the proposed project on historic properties.	SHPO	9/18/08
New Mexico State	NMSLO's request to participate as a consulting party.	NMSLO	4/19/07

Agency/Entity	Purpose of Correspondence	Corresponding Agency	Date of Correspondence
Land Office (NMSLO)	The FAA's request for comments on biological survey reports.	FAA	7/16/07
	NMSLO's comments on cultural survey report.	NMSLO	8/13/07
	The FAA's request for comment on cultural survey reports and attendance at September 2007 meeting.	FAA	8/15/07
	The FAA's request for review of on-site and off-site cultural survey reports.	FAA	8/31/07
	NMSLO's comments on on-site cultural survey report.	NMSLO	10/30/07
	NMSLO's comments on off-site cultural survey report.	NMSLO	11/13/07
	The FAA's request for review of off-site cultural survey report.	FAA	5/30/08
	The FAA's request for review of the onsite report's Setting APE analysis chapter.	FAA	7/03/08
	The FAA's distribution of the final cultural survey reports and FAA's determination of eligibility and effect.	FAA	8/26/08
	NMSLO's concurrence with FAA's determinations of eligibility and effect of the proposed project on historic properties..	NMSLO	9/08/08
New Mexico Environment Department	NMED's request that NMSA request a pre-application meeting with the Permit Section of the Air Quality Bureau regarding any necessary permits for construction and operation of Spaceport America.	NMED	7/25/08

Agency/Entity	Purpose of Correspondence	Corresponding Agency	Date of Correspondence
LOCAL GOVERNMENT CORRESPONDENCE			
Sierra County Commission	The FAA's request for comment on cultural survey reports and attendance at September 2007 meeting.	FAA	8/15/07
	The FAA's request for review of on-site cultural survey report.	FAA	8/31/07
	The FAA's request for review of off-site cultural survey report.	FAA	5/30/08
	The FAA's request for review of the onsite report's Setting APE analysis chapter.	FAA	7/03/08
	The FAA's distribution of the final cultural survey reports and FAA's determination of eligibility and effect.	FAA	8/26/08
TRIBAL CORRESPONDENCE			
Apache Tribe of Oklahoma	The FAA initiates consultation under National Environmental Policy Act (NEPA) and National Historic Preservation Act (NHPA).	FAA	2/3/06
	The FAA provides a summary of the cultural resource findings, the process for resolution of effects, and the status of the EIS.	FAA	10/15/08
Comanche Tribe	The FAA initiates consultation under NEPA and NHPA.	FAA	2/3/06
	Comanche's request for information on project progress and archaeological reports and findings.	Comanche Tribe	3/9/06

Agency/Entity	Purpose of Correspondence	Corresponding Agency	Date of Correspondence
	The FAA re-initiates consultation and provides updates on the Project.	FAA	3/22/07
	Comanche's request, again, for information on project progress and archaeological reports and findings.	Comanche Tribe	4/16/07
	The FAA's request for comment on cultural survey reports and attendance at September 2007 meeting.	FAA	8/15/07
	The FAA's request for review of on-site cultural survey report.	FAA	8/31/07
	The FAA's request for review of off-site cultural survey report.	FAA	5/30/08
	The FAA's request for review of the onsite report's Setting APE analysis chapter.	FAA	7/03/08
	The FAA's distribution of the final cultural survey reports and FAA's determination of eligibility and effect.	FAA	8/26/08
Fort Sill Apache Tribe	The FAA initiates consultation under NEPA and NHPA.	FAA	2/3/06
	The FAA re-initiates consultation and provides updates on the Project.	FAA	3/22/07
	The FAA provides a summary of the cultural resource findings, the process for resolution of effects, and the status of the EIS.	FAA	10/15/08
Hopi Tribe	The FAA initiates consultation under NEPA and NHPA.	FAA	2/3/06

Agency/Entity	Purpose of Correspondence	Corresponding Agency	Date of Correspondence
	Hopi's request for additional consultation and copy of cultural survey reports.	Hopi Tribe	2/24/06
	The FAA re-initiates consultation and provides updates on the Project.	FAA	3/22/07
	Hopi's request, again, for copies of cultural survey reports.	Hopi Tribe	4/2/07
	The FAA's request for comment on cultural survey reports and attendance at September 2007 meeting.	FAA	8/15/07
	Hopi's third request for copies of cultural survey reports.	Hopi Tribe	8/27/07
	The FAA's request for review of on-site cultural survey report.	FAA	8/31/07
	Hopi's reply that they are unable to attend September meetings, have reviewed the surveys, look forward to seeing the determination of effect, and hope that the sites can be avoided by the project.	Hopi Tribe	9/5/07
	The FAA's request for review of off-site cultural survey report.	FAA	5/30/08
	Hopi's reply that they have ancestral and cultural affiliation to the prehistoric archaeological sites in the project area.	Hopi Tribe	6/9/08
	The FAA's request for review of the onsite report's Setting APE analysis chapter.	FAA	7/3/08
	The FAA's distribution of the final cultural survey reports and FAA's determination of eligibility and effect.	FAA	8/26/08

Agency/Entity	Purpose of Correspondence	Corresponding Agency	Date of Correspondence
Jicarilla Apache Nation	The FAA initiates consultation under NEPA and NHPA.	FAA	2/3/06
Kiowa Tribe of Oklahoma	The FAA initiates consultation under NEPA and NHPA.	FAA	2/3/06
	The FAA re-initiates consultation and provides updates on the Project.	FAA	3/22/07
	The FAA provides a summary of the cultural resource findings, the process for resolution of effects, and the status of the EIS.	FAA	10/15/08
Mescalero Apache Tribe	The FAA initiates consultation under NEPA and NHPA.	FAA	2/3/06
	The FAA re-initiates consultation and provides updates on the Project.	FAA	3/22/07
	The FAA provides a summary of the cultural resource findings, the process for resolution of effects, and the status of the EIS.	FAA	10/15/08
Navajo Nation	The FAA initiates consultation and provides updates on the Project.	FAA	3/22/07
	The FAA provides a summary of the cultural resource findings, the process for resolution of effects, and the status of the EIS.	FAA	10/15/08
Pawnee Nation of Oklahoma	The FAA initiates consultation under NEPA and NHPA.	FAA	2/3/06
Pueblo of Isleta	The FAA initiates consultation under NEPA and NHPA.	FAA	2/3/06

Agency/Entity	Purpose of Correspondence	Corresponding Agency	Date of Correspondence
	The FAA re-initiates consultation and provides updates on the Project.	FAA	3/22/07
	Pueblo of Isleta's reply for no need to send additional information unless a discovery of sites/items.	Pueblo of Isleta	7/20/07
Pueblo of Zia	The FAA initiates consultation under NEPA and NHPA.	FAA	2/3/06
San Carlos Apache Tribe	The FAA initiates consultation under NEPA and NHPA.	FAA	2/3/06
White Mountain Apache Tribe	The FAA initiates consultation under NEPA and NHPA.	FAA	2/3/06
	White Mountain Apache's reply for no need to send additional information unless a discovery of sites/items.	White Mountain Apache Tribe	2/22/06
	The FAA re-initiates consultation and provides updates on the Project.	FAA	3/22/07
	The FAA's request for comment on cultural survey reports and attendance at September 2007 meeting.	FAA	8/15/07
	The FAA's request for review of on-site cultural survey report.	FAA	8/31/07
	The FAA's request for review of off-site cultural survey report.	FAA	5/30/08
	The FAA's request for review of the onsite report's Setting APE analysis chapter.	FAA	7/03/08

Agency/Entity	Purpose of Correspondence	Corresponding Agency	Date of Correspondence
	The FAA's distribution of the final cultural survey reports and FAA's determination of eligibility and effect.	FAA	8/26/08
Yselta del Sur	The FAA initiates consultation under NEPA and NHPA.	FAA	2/3/06
	The FAA re-initiates consultation and provides updates on the Project.	FAA	3/22/07
	The FAA's request for comment on cultural survey reports and attendance at September 2007 meeting.	FAA	8/15/07
	The FAA's request for review of on-site cultural survey report.	FAA	8/31/07
	The FAA's request for review of off-site cultural survey report.	FAA	5/30/08
	The FAA's request for review of the onsite report's Setting APE analysis chapter.	FAA	7/03/08
	The FAA's distribution of the final cultural survey reports and FAA's determination of eligibility and effect.	FAA	8/26/08
Zuni Tribe	The FAA initiates consultation under NEPA and NHPA.	FAA	2/3/06
OTHER ENTITY CORRESPONDENCE			
El Camino Real de Tierra Adentro Trail Association (CARTA)	The FAA's request for comment on cultural survey reports and attendance at September 2007 meeting.	FAA	8/15/07
	The FAA's request for review of on-site cultural survey report.	FAA	8/31/07
	CARTA's comments on on-site cultural survey report.	CARTA	10/17/07

Agency/Entity	Purpose of Correspondence	Corresponding Agency	Date of Correspondence
	The FAA's request for review of off-site cultural survey report.	FAA	5/30/08
	CARTA's comments on off-site cultural survey report.	CARTA	6/8/08
	The FAA's request for review of the onsite report's Setting APE analysis chapter.	FAA	7/03/08
	The FAA's distribution of the final cultural survey reports and FAA's determination of eligibility and effect.	FAA	8/26/08
National Trust for Historic Preservation (NTHP)	NTHP's request to participate as a consulting party with recommendations for the EIS.	NTHP	12/11/06
	The FAA accepts NTHP's request to act as a consulting party.	FAA	3/16/07
	NTHP submits questions for the FAA concerning consultation under NEPA and NHPA.	NTHP	7/5/07
	The FAA's request for comment on cultural survey reports and attendance at September 2007 meeting.	FAA	8/15/07
	The FAA's response to questions concerning consultation under NEPA and NHPA.	FAA	8/20/07
	The FAA's request for review of on-site cultural survey report.	FAA	8/31/07
	NTHP's comments on on-site cultural survey report.	NTHP	10/31/07
	The FAA's request for review of off-site cultural survey report.	FAA	5/30/08
	NTHP's comments on the off-site cultural survey report.	NTHP	7/2/08

Agency/Entity	Purpose of Correspondence	Corresponding Agency	Date of Correspondence
	The FAA's request for review of the onsite report's Setting APE analysis chapter.	FAA	7/03/08
	NTHP's comments on the on-site Setting APE analysis chapter.	NTHP	7/21/08
	The FAA's distribution of the final cultural survey reports and FAA's determination of eligibility and effect.	FAA	8/26/08
New Mexico Heritage Preservation Alliance (NMHPA)	NMHPA's request to participate as a consulting party.	NMHPA	5/14/07
	The FAA's request for comment on cultural survey reports and attendance at September 2007 meeting.	FAA	8/15/07
	The FAA's request for review of on-site cultural survey report.	FAA	8/31/07
	The FAA's request for review of off-site cultural survey report.	FAA	5/30/08
	The FAA's request for review of the onsite report's Setting APE analysis chapter.	FAA	7/03/08
	The FAA's distribution of the final cultural survey reports and FAA's determination of eligibility and effect.	FAA	8/26/08
Representative for Ranchers	The FAA's request for comment on cultural survey reports and attendance at September 2007 meeting.	FAA	8/15/07
	The FAA's request for review of on-site cultural survey report.	FAA	8/31/07
	The FAA's request for review of off-site cultural survey report.	FAA	5/30/08
	Rancher's comments on the off-site cultural survey report.	Ranchers	6/24/08

Agency/Entity	Purpose of Correspondence	Corresponding Agency	Date of Correspondence
	The FAA's request for review of the onsite report's Setting APE analysis chapter.	FAA	7/03/08
	The FAA's distribution of the final cultural survey reports and FAA's determination of eligibility and effect.	FAA	8/26/08

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APPENDIX B
PUBLIC INVOLVEMENT

In order to provide adequate opportunity for public participation in the NEPA process, the FAA conducted public outreach during the preparation of the EIS. The FAA adheres to the CEQ regulations implementing NEPA (40 CFR 1506.6) and FAA Order 1050.1E when conducting all public involvement activities. Public participation in the NEPA process not only provides for and encourages open communication between the FAA and the public, but also promotes better decision-making.

B.1 Scoping

Scoping for the development of this EIS began with the publication of the Notice of Intent (NOI) in the Federal Register (71 FR 3915) on January 24, 2006. The NOI is shown in Exhibit B-1. During scoping, the FAA invited the participation of Federal, State, and local agencies, Native American tribes, environmental groups, citizens, and other interested parties to assist in determining the scope and significant issues to be evaluated in this EIS.

Two scoping meetings were held in February 2006 to request input from the public on concerns regarding the proposed activities as well as to gather information and knowledge of issues relevant to analyzing the environmental impacts associated with the Proposed Action. The scoping meetings were held on February 15 in Truth or Consequences, New Mexico and on February 16 in Las Cruces, New Mexico. Exhibit B-2 shows the notifications for these meetings that were published in local newspapers in the Legal Notices sections. The notices published are shown in Exhibit B-3, Exhibit B-4, Exhibit B-5, Exhibit B-6, and Exhibit B-7. The fact sheet distributed at these meetings is shown in Exhibit B-8. The posters displayed at these meetings may be viewed at the FAA web site discussed in Section B.2.

Exhibit B-1. Notice of Intent (71 FR 3915) Published January 24, 2006

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Agency Information Collection Activity Under OMB Review, Request for Comments; Approval of a New Information Collection Activity, International Survey of Human Factors in Maintenance Organizations

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice and request for comments.

SUMMARY: Organizations that are approved to conduct aircraft maintenance are certified and regulated under CFR 14, Title 49, FAR part 145, or international equivalent (Henceforth referred to as part 145). The information collected will be used to assess what companies have done, are doing or are planning to do regarding the human factors elements of part 145. A partial list of subjects includes training, error management, fatigue management, and additional human factors metrics. Additionally, respondents will be asked to describe their organization's support of their human factors program. This will involve collecting data from companies world-wide. The FAA invites public comments about our intention to request the Office of Management and Budget's (OMB) approval of this new information collection. A notice for public comment was published in the **Federal Register** on 7/6/2005, vol. 70, #128, page 39000.

DATES: Please submit comments by February 23, 2006.

FOR FURTHER INFORMATION CONTACT: Judy Street on (202) 267–9895.

SUPPLEMENTARY INFORMATION:

Federal Aviation Administration (FAA)

Title: International Survey of Human Factors in Maintenance Organizations.

Type of Request: Approval of a new collection.

OMB Control Number: 2120–xxxx.

Form(s): Human Factors Survey Form.

Affected Public: A total of 1,080 respondents.

Frequency: Conducted on an as-needed basis.

Estimated Average Burden Per Response: Approximately 30 minutes.

Estimated Annual Burden Hours: An estimated 540 hours annually.

Abstract: Part 145 organizations will receive an invitation via e-mail to complete a web-based survey. The information collected will be used to assess what companies have done, are doing or are planning to do regarding the human factors elements of part 145. A partial list of subjects includes training, error management, fatigue management, and additional human factors metrics. Additionally, respondents will be asked to describe their organization's support of their human factors program. This will involve collecting data from companies world-wide.

ADDRESSES: Send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, Attention FAA Desk Officer.

Comments are invited on: Whether the proposed collection of information is necessary for the proper performance of the functions of the Department, including whether the information will have practical utility; the accuracy of the Department's estimates of the burden of the proposed information collection; ways to enhance the quality, utility and clarity of the information to be collected; and ways to minimize the burden of the collection of information on respondents, including the use of automated collection techniques or other forms of information technology.

Issued in Washington, DC, on January 13, 2006.

Judith D. Street,

FAA Information Collection Clearance Officer, Information Systems and Technology Services Staff, ABA–20.

[FR Doc. 06–596 Filed 1–23–06; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Notice of Extension of the Public Comment Period for the Draft Supplemental Environmental Assessment for the Proposed Modification to the Four Corner-Post Plan at Las Vegas McCarran International Airport

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Extension of public comment period.

SUMMARY: This notice advises the public that the comment period for the Draft Supplemental Environmental Assessment (DSEA) for the proposed modification to the Four Corner-Post Plan at Las Vegas McCarran International Airport, Las Vegas, Nevada is extended.

DATES: The comment period of the DSEA, originally ending on December 30, 2005, and then extended to January 13, 2006, is now extended to March 14, 2006.

SUPPLEMENTARY INFORMATION: On November 22,2005, the Federal Aviation Administration (FAA) issued a notice of the availability of the DSEA for the Las Vegas McCarran International Airport. The notice published on December 5, 2005, FR Vol. 70, page 72497, also announced the schedule for public workshops regarding the DSEA, and advised that the public comment period would close Friday, December 30, 2005. The public workshops were held on November 12 and 13, 2005. A Notice of Extension of the Public Comment Period, published on December 16, 2006, FR Vol. 70, page 74864, extending the public comment period to January 13, 2006. The public comment period is further extended to March 14, 2006.

All written comments are to be submitted to Ms. Sara Hassert, Landrum & Brown, Inc., 8755 W. Higgins Rd., Ste. 850, Chicago, IL 60631, fax: 773–628–2901, E-mail: *shassert@landrum-brown.com* and the comments must be postmarked and e-mail/fax must be sent by no later than midnight, Tuesday, March 14, 2006.

FOR FURTHER INFORMATION CONTACT: Ms. Kathryn Higgins, Environmental Specialist, Western Terminal Service Area Office, FAA Western Terminal Operations, 15000 Aviation Blvd., Lawndale, CA 90261, Ph. 310–725–6597, E-mail: *kathryn.higgins@faa.gov.*

Issued in Lawndale, California on January 12, 2006.

Stephen Lloyd,

Manager, Operations Support, Western Terminal Service Area.

[FR Doc. 06–590 Filed 1–23–06; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Associate Administrator for Commercial Space Transportation; Notice of Intent To Prepare an Environmental Impact Statement (EIS) and Conduct Public Scoping Meetings

AGENCY: The Federal Aviation Administration (FAA), Associate Administrator for Commercial Space Transportation (AST) is the lead Federal agency. The Bureau of Land Management (BLM) is a cooperating agency. The FAA will ask the U.S. Department of the Army to participate as a cooperating agency.

ACTION: Notice of Intent.

SUMMARY: This Notice provides information to Federal, State, and local

agencies, affected Native American tribes, and other interested persons regarding the FAA's intent to prepare an environmental impact statement (EIS) for the New Mexico Economic Development Department's (NMEDD's) proposal to develop and operate a commercial launch site near Upham, New Mexico. The FAA will prepare the EIS in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 United States Code (U.S.C.) 4321 *et seq.*), the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations (CFR) parts 1500–1508), and FAA Order 1050.1E, Environmental Impacts: Policies and Procedures, as part of its licensing process for the proposed launch site. The BLM will participate in this NEPA process as a cooperating agency; the FAA will ask the U.S. Army White Sands Missile Range to participate as a cooperating agency.

Under the proposed action, the FAA would issue a launch site operator license to the NMEDD to operate a launch facility at the proposed site, termed the Southwest Regional Spaceport. The launch site operator license would authorize the NMEDD to operate a launch facility to support launches of horizontally and vertically launched, suborbital rockets.[1] The vehicles proposed to be launched from the Southwest Regional Spaceport may carry space flight participants,[2] scientific experiments or other payloads.[3] The issuance of a launch site operator license does not permit the NMEDD to conduct launches, only to offer the facility and infrastructure to launch operators. All individual launch operators would be subject to separate FAA licensing or permitting.

A license to operate a launch site authorizes a licensee to offer its launch site to a launch operator for each launch point for the type and weight class of launch vehicle identified in the license application and upon which the licensing determination is based. Issuance of a license to operate a launch site does not relieve a licensee of its obligation to comply with any other laws or regulations; nor does it confer any proprietary, property, or exclusive right in the use of airspace or outer space. (14 CFR 420.41) A launch site operator license remains in effect for five years from the date of issuance unless surrendered, suspended, or revoked before the expiration of the term and is renewable upon application by the licensee. (14 CFR 420.43)

SUPPLEMENTARY INFORMATION:

Background

The FAA is preparing an EIS to analyze the environmental impacts of the NMEDD's proposed operation of a launch facility near Upham, New Mexico. The proposed site is located approximately 45 miles north of Las Cruces, New Mexico. The EIS will consider the environmental impacts of the construction of facilities, ground activities (*e.g.*, component testing, transportation and storage of propellants and explosives, etc.), pre-flight vehicle and payload preparation activities, launch, and landing/recovery operations.

The successful completion of the environmental review process does not guarantee that the FAA would issue a launch site operator license to the NMEDD. The project also must meet all FAA safety, risk, and indemnification requirements. A license to operate a launch site does not guarantee that a launch license or experimental permit would be granted for any particular launch proposed for the site.

Proposed Action

The proposed action is for the FAA to issue a launch site operator license to the NMEDD that would allow the NMEDD to operate the Southwest Regional Spaceport for both horizontal and vertical suborbital launches. Nominally, the rockets would return and land within the Southwest Regional Spaceport or adjacent areas. Contingency landings may occur on lands administered by BLM.

As part of the proposed action, the NMEDD proposes to construct a vertical launch area, airfield, spectator area, landing and recovery area, and access road. The vertical launch area would include: Storage areas for explosives and propellants, three launch pads, two vehicle assembly areas, launch control building, and office areas. The airfield would include prevailing and cross wind runways, and a horizontal launch hangar. The spectator area would include parking and viewing areas. These facilities would be constructed on State property. Development of access and supporting utility infrastructure for the Southwest Regional Spaceport may occur on lands administered by the BLM. The impacts of all construction activities will be analyzed in this EIS.

In order to address the range of launch vehicles that could be launched from the proposed facility, the EIS will consider three types of horizontally launched concept vehicles and three types of vertically launched concept vehicles. The horizontal concept vehicles include:

- Concept H1 vehicles—These vehicles use jet-powered take off with subsequent rocket engine ignition and powered horizontal landing.
- Concept H2 vehicles—These vehicles use rocket-powered take off and flight and unpowered horizontal landing.
- Concept H3 vehicles—These vehicles are carried aloft via assist aircraft with subsequent rocket engine ignition and unpowered horizontal landing.

The vertical concept vehicles include:

- Concept V1 vehicles—These vehicles consist of a single-stage rocket in which the rocket stage and payload or crew/passenger modules return separately to Earth by parachute.
- Concept V2 vehicles—These vehicles consist of a single-stage rocket in which the rocket stage returns to Earth by parachute and the crew/passenger module returns with a powered or unpowered horizontal landing.
- Concept V3 vehicles—These vehicles consist of a single-stage rocket with rocket-powered vertical landing.

Alternatives

Alternatives under consideration include issuance of a launch site operator license to the NMEDD for the operation of a launch site to support

- Horizontal launch concept vehicles only,
- Vertical launch concept vehicles only, or
- A subset of the concept vehicles.

Based on comments received during the scoping period, the FAA may propose additional alternatives. The EIS will also analyze the no action alternative.

Scoping Meetings

Two public scoping meetings will be held to solicit input from the public on potential issues that may need to be evaluated in the EIS. The first scoping meeting will be held on February 15 at 6:30 p.m., at the Truth or Consequences City Council Chambers, 405 West 3rd St. in Truth or Consequences, New Mexico. The second scoping meeting

[1] A suborbital rocket is a vehicle, rocket-propelled in whole or in part, intended for flight on a suborbital trajectory, and the thrust of which is greater than its lift for the majority of the rocket-powered portion of its ascent. (49 U.S.C 70102(19)) Suborbital trajectory is the intentional flight path of a launch vehicle, reentry vehicle, or any portion thereof whose vacuum instantaneous impact point (IIP) does not leave the surface of the Earth.

[2] 'Space flight participant' means an individual who is not crew, carried within a launch vehicle or reentry vehicle.

[3] Payload is the item that an aircraft or rocket carries over and above what is necessary for the operation of the vehicle in flight.

will be held on February 16, at 6:30 p.m., at the Physical Sciences Laboratory Auditorium, New Mexico State University in Las Cruces, New Mexico.

DATES: The FAA invites interested agencies, organizations, Native American tribes, and members of the public to submit comments or suggestions to assist in identifying significant environmental issues and in determining the appropriate scope of the EIS. The public scoping period starts with the publication of this notice in the **Federal Register**. To ensure sufficient time to consider issues identified during the public scoping period, comments should be submitted to Ms. Stacey M. Zee by one of the methods listed below no later than March 3, 2006.

ADDRESSES: Comments, statements, or questions concerning scoping issues or the EIS process should be mailed to Ms. Stacey M. Zee, FAA Environmental Specialist, Southwest Regional Spaceport EIS c/o ICF Consulting, 9300 Lee Highway, Fairfax, VA 22031. Comments can also be sent by e-mail to *SRSEIS@icfconsulting.com* or by fax to (703) 934–3951.

Dated: January 13, 2006.

Herbert Bachner,

Manager, Space Systems Development Division.

[FR Doc. E6–757 Filed 1–23–06; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

[Summary Notice No. PE–2006–01]

Petitions for Exemption; Summary of Petitions Received

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of petitions for exemption received.

SUMMARY: Pursuant to FAA's rulemaking provisions governing the application, processing, and disposition of petitions for exemption part 11 of Title 14, Code of Federal Regulations (14 CFR), this notice contains a summary of certain petitions seeking relief from specified requirements of 14 CFR. The purpose of this notice is to improve the public's awareness of, and participation in, this aspect of FAA's regulatory activities. Neither publication of this notice nor the inclusion or omission of information in the summary is intended to affect the legal status of any petition or its final disposition.

DATES: Comments on petitions received must identify the petition docket number involved and must be received on or before February 13, 2006.

ADDRESSES: You may submit comments [identified by DOT DMS Docket Number FAA–200X–XXXXX] by any of the following methods:

- Web site: *http://dms.dot.gov.* Follow the instructions for submitting comments on the DOT electronic docket site.
- Fax: 1–202–493–2251.
- Mail: Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL–401, Washington, DC 20590–001.
- Hand Delivery: Room PL–401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Docket: For access to the docket to read background documents or comments received, go to *http://dms.dot.gov* at any time or to Room PL–401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Tim Adams (202) 267–8033, Sandy Buchanan-Sumter (202) 267–7271, or John Linsenmeyer (202) 267–5174, Office of Rulemaking (ARM–1), Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591.

This notice is published pursuant to 14 CFR 11.85 and 11.91.

Issued in Washington, DC, on January 11, 2006.

Anthony F. Fazio,

Director, Office of Rulemaking.

Petitions for Exemption

Docket No.: FAA–2005–23189.

Petitioner: Brooks Air Transport d.b.a. Brooks Fuel, Inc.

Section of 14 CFR Affected: 14 CFR 125.224.

Description of Relief Sought: To allow Brooks Air Transport d.b.a. Brooks Fuel, Inc., to operate its Douglas C54G–DC without having a collision avoidance system that meets TSO C–118 installed on that aircraft.

[FR Doc. E6–753 Filed 1–23–06; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Third Meeting: RTCA Special Committee 206: Aeronautical Information Services Data Link

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of RTCA Special Committee 206 meeting.

SUMMARY: The FAA is issuing this notice to advise the public of a meeting of RTCA Special Committee 206: Aeronautical Information Services Data Link.

DATES: The meeting will be held January 30–February 3, 2006, from 9 a.m. to 5 p.m.

ADDRESSES: The meeting will be held at CASTOR Conference Room (Plenary) EUROCONTROL Headquarters, Rue de la Fusée, 96 1130 Brussells, Belgium.

FOR FURTHER INFORMATION CONTACT: RTCA Secretariat, 1828 L Street, NW., Suite 805, Washington, DC, 20036–5133; telephone (202) 833–9339; fax (202) 833–9434; Web site *http://www.rtca.org.*

SUPPLEMENTARY INFORMATION: Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (P.L. 92–463, 5 U.S.C., Appendix 2), notice is hereby given for a Special Committee 206 meeting. The agenda will include:

Monday, January 30:

- Opening Session (Chairman's Address, Welcome, Introductory and Administrative Remarks, Review Agenda, Approve minutes of the 2nd meeting.)
- Formal announcement of EUROCAE participation
- Working arrangements
- Nomination of chairman and secretary
- Status of Terms of Reference Overview and Discussions—Committee Chairmen
- Review of actions and discussion
- Presentations
- Communications Strategy
- Overview of the Cascade Program
- Future data Link applications
- Methodology and OSED development
- Breakout into Weather Data Link and AIS Data Link Subgroups

Tuesday, January 31–Thursday, February 2:

- Continue in Weather Data Link and AIS Data Link Subgroups

Friday, February 3:

- Continue in Weather Data Link and AIS Data Link Subgroups
- Chairman of Weather Subgroup Summary Presentation of Results and Meeting Outcome

Exhibit B-2. Newspapers and Dates of Publication of Notices for the Public Scoping Meetings

Newspaper	City/County	Date
Sierra County Sentinel	Truth or Consequences	February 1, 2006
		February 8, 2006
Herald	Truth or Consequences	February 1, 2006
		February 8, 2006
Las Cruces Bulletin	Las Cruces	February 3, 2006
		February 10, 2006
Las Cruces Sun-News	Las Cruces	February 4, 2006
		February 11, 2006
Albuquerque Journal	Albuquerque	February 5, 2006
		February 12, 2006

Exhibit B-3. Public Scoping Meeting Notice in the Sierra County Sentinel Newspaper

STATE OF NEW MEXICO, ss.
County of Sierra

Myrna Kohs, being first duly sworn, on her oath says: That she is the editor of the Sierra County SENTINEL, a newspaper published in the Town of Truth or Consequences, in the County of Sierra and State of New Mexico, and that said newspaper is now, and was at all times herein mentioned, a newspaper of general circulation.

That the advertisement, a copy of which is hereto attached, was published in said herein before mentioned newspaper once each and every week for TWO(2) consecutive weeks, the first publication thereof having been made on the 1st day of FEBRUARY, A.D. 2006. and the last publication thereof having been made on the 8th day of FEBRUARY, A.D. 2006.

That said newspaper was regularly printed, published and issued with said notice therein upon the following dates, to-wit:
FEBRUARY 1,8, 2006.

Myrna Kohs

Subcribed and sworn to before me this 10 of February, 2006.

Mary Jane McKay
Notary Public
My commission expires AUGUST 15, 2007

LEGAL NOTICE

Federal Aviation Administration NOTICE OF PUBLIC MEETING

The New Mexico Economic Development Department proposes to construct and operate a commercial launch facility near Upham, New Mexico. The project requires preparation of an Environmental Impact Statement (EIS). The Federal Aviation Administration (FAA) invites interested parties to submit comments to assist in identifying significant environmental issues and in determining the scope of the EIS. The FAA will hold two public scoping meetings to collect input on the proposed project: Wednesday, February 15, 2006, 6:30 p.m. at the Truth or Consequences City Council Chambers, 405 West 3rd Street, Truth or Consequences, New Mexico (contact the Sierra County Economic Development Organization at (505) 894-9061 for directions); and Thursday, February 16, 2006, 6:30 p.m. in the Physical Science Laboratory Auditorium, Stewart St. at Espina, New Mexico State University, Las Cruces, New Mexico (contact Bill Gutman at (505) 521-9573 for directions). The scoping meeting will include a presentation followed by a public statement period in which members of the public may provide up to a three-minute statement. Comments or questions also can be mailed to Ms. Stacey Zee, FAA Environmental Specialist, SRS EIS c/o ICF Consulting, 9300 Lee Highway, Fairfax, VA 22031. Comments can also be sent by e-mail to SRSEIS@icfconsulting.com or by fax to (703) 934-3951.
Pub: Feb. 1, 8, 2006

Exhibit B-4. Public Scoping Meeting Notice in the Herald Newspaper

THIS IS A PROOF CLIPPING ONLY

If you see any errors, please bring them to our attention as soon as possible. You will receive your proof of publication as soon as the publication has run its required number of times in The HERALD, the official legal publication in Sierra County.

THE HERALD
(505) 894-2143
Fax (505) 894-7824

Thank you for trusting The HERALD with your legal publication needs.

Loretta Tooley
Legal Advertising Manager
P. O. Box 752
Truth or Consequences, New Mexico 87901

Federal Aviation Administration
NOTICE OF PUBLIC MEETING

The New Mexico Economic Development Department proposes to construct and operate a commercial launch facility near Upham, New Mexico. The project requires preparation of an Environmental Impact Statement (EIS). The Federal Aviation Administration (FAA) invites interested parties to submit comments to assist in identifying significant environmental issues and in determining the scope of the EIS. The FAA will hold two public scoping meetings to collect input on the proposed project: Wednesday, February 15, 2006, 6:30 pm at the Truth or Consequences City Council Chambers, 405 West 3rd Street, Truth or Consequences, New Mexico (contact the Sierra County Economic Development Organization at (505) 894-9061 for directions); and Thursday, February 16, 2006, 6:30 pm in the Physical Science Laboratory Auditorium, Stewart St. at Espina, New Mexico State University, Las Cruces, New Mexico (contact Bill Gutman at (505) 521-9573 for directions). The scoping meeting will include a presentation followed by a public statement period in which members of the public may provide up to a three-minute statement. Comments or questions also can be mailed to Ms. Stacey Zee, FAA Environmental Specialist, SRS EIS c/o ICF Consulting, 9300 Lee Highway, Fairfax, VA 22031. Comments can also be sent by e-mail to SRSEIS@icfconsulting.com or by fax to (703) 934-3951.
Pub: February 1, 8, 2006.
****

Exhibit B-5. Public Scoping Meeting Notice in the Las Cruces Bulletin Newspaper

Legal Advertising Affidavit

Stephanie L. Griffin, who, being duly sworn is the Assistant to the Publisher of the Las Cruces BULLETIN, a weekly newspaper of general distribution published in the City of Las Cruces, County of Doña Ana, State of New Mexico, disposes and states that the legal advertising for

Federal Aviation Administration
Dr. Bill Gutman
Notice of Public Meeting

In accordance with the laws of the State of New Mexico, the attached was published in its entirety 2 time(s) in the Las Cruces BULLETIN, the first publication date being 2-3-06 and subsequent publications being 2-10-06

Stephanie L. Griffin

Sworn to and subscribed before me this 10th day of February 2006 in the
CITY OF LAS CRUCES
COUNTY OF DONA ANA
STATE OF NEW MEXICO
My Commission expires: **August 11, 2007**

Jacqueline McCollum - Notary Public

$95.77
Advertising Costs

Federal Aviation Administration

NOTICE OF PUBLIC MEETING

The New Mexico Economic Development Department proposes to construct and operate a commercial launch facility near Upham, New Mexico. The project requires preparation of an Environmental Impact Statement (EIS). The Federal Aviation Administration (FAA) invites interested parties to submit comments to assist in identifying significant environmental issues and in determining the scope of the EIS. The FAA will hold two public scoping meetings to collect input on the proposed project: Wednesday, February 15, 2006, 6:30 pm at the Truth or Consequences City Council Chambers, 405 West 3rd Street, Truth or Consequences, New Mexico (contact the Sierra County Economic Development Organization at (505) 894-9061 for directions); and Thursday, February 16, 2006, 6:30 pm in the Physical Science Laboratory Auditorium, Stewart St. at Espina, New Mexico State University, Las Cruces, New Mexico (contact Bill Gutman at (505) 521-9573 for directions). The scoping meeting will include a presentation followed by a public statement period in which members of the public may provide up to a three-minute statement. Comments or questions also can be mailed to Ms. Stacey Zee, FAA Environmental Specialist, SRS EIS c/o ICF Consulting, 9300 Lee Highway, Fairfax, VA 22031. Comments can also be sent by e-mail to SRSEIS@icfconsulting.com or by fax to (703) 934-3951.

Pub# 2995
Dates 2/3, 2/10, 2006

Exhibit B-6. Public Scoping Meeting Notice in the Las Cruces Sun-News Newspaper

PROOF OF PUBLICATION

Wayne Barnard, being duly sworn, deposes and says that he is the Classified Manager of the Las Cruces Sun-News, a newspaper published daily in the county of Dona Ana, State of New Mexico; that the notice 35698 **per clipping attached was published once a week/day in regular and entire issue of said newspaper and not in any supplement thereof for** 2 **consecutive week(s)/day(s), the first publication was in the issue dated** 2-4-06 **and the last publication was** 2-11-06.

Deponent further states this newspaper is duly qualified to publish legal notice or advertisements within the meaning of Sec. Chapter 167, Laws of 1937.

Signed

Classified Manager
Official Position

STATE OF NEW MEXICO
ss.
County of Dona Ana

Subscribed and sworn before me this

14 **day of** February 2006.

Notary Public in and for
Dona Ana County, New Mexico

01-10-10
My Term Expires

FEDERAL AVIATION ADMINISTRATION NOTICE OF PUBLIC MEETING

The New Mexico Economic Development Department proposes to construct and operate a commercial launch facility near Upham, New Mexico. The project requires preparation of an Environmental Impact Statement (EIS). The Federal Aviation Administration (FAA) invites interested parties to submit comments to assist in identifying significant environmental issues and in determining the scope of the EIS. The FAA will hold two public scoping meetings to collect input on the proposed project: Wednesday, February 15, 2006, 6:30 pm at the Truth or Consequences City Council Chambers, 405 West 3rd Street, Truth or Consequences, New Mexico (contact the Sierra County Economic Development Organization at (505) 894-9061 for directions); and Thursday, February 16, 2006, 6:30 pm in the Physical Science Laboratory Auditorium, Stewart St. at Espina, New Mexico State University, Las Cruces, New Mexico (contact Bill Gutman at (505) 521-9573 for directions). The scoping meeting will include a presentation followed by a public statement period in which members of the public may provide up to a three-minute statement. Comments or questions also can be mailed to Ms. Stacey Zee, FAA Environmental Specialist, SRS EIS c/o ICF Consulting, 9300 Lee Highway, Fairfax, VA 22031. Comments can also be sent by e-mail to SRSEIS@icfconsulting.com or by fax to (703) 934-3951.

Pub. No. 35698
Publish: Feb 4, 11, 2006

Exhibit B-7. Public Scoping Meeting Notice in the Albuquerque Journal Newspaper

NM STATE

FEDERAL AVIATION ADMINISTRATION NOTICE OF PUBLIC MEETING

The New Mexico Economic Development Department proposes to construct and operate a commercial launch facility near Upham, New Mexico. The project requires preparation of an Environmental Impact Statement (EIS). The Federal Aviation Administration (FAA) invites interested parties to submit comments to assist in identifying significant environmental issues and in determining the scope of the EIS. The FAA will hold two public scoping meetings to collect input on the proposed project: Wednesday, February 15, 2006, 6:30 pm at the Truth or Consequences City Council Chambers, 405 West 3rd Street, Truth or Consequences, New Mexico (contact the Sierra County Economic Development Organization at (505) 894-9061 for directions); and Thursday, February 16, 2006, 6:30 pm in the Physical Science Laboratory Auditorium, Stewart St. at Espina, New Mexico State University, Las Cruces, New Mexico (contact Bill Gutman at (505) 521-9573 for directions). The scoping meeting will include a presentation followed by a public statement period in which members of the public may provide up to a three-minute statement. Comments or questions also can be mailed to Ms. Stacey Zee, FAA Environmental Specialist, SRS EIS c/o ICF Consulting, 9300 Lee Highway, Fairfax, VA 22031. Comments can also be sent by e-mail to SRSEIS@icfconsulting.com or by fax to (703) 934-3951.
Journal: February 5, 12, 2006

STATE OF NEW MEXICO
County of Bernalillo SS

Bill Tafoya, being duly sworn, declares and says that he is Classified Advertising Manager of **The Albuquerque Journal**, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made of assessed as court cost; that the notice, copy of which is hereto attached, was published in said paper in the regular daily edition, for 2 times, the first publication being on the 5 day of Feb, 2006 and the subsequent consecutive publications on Feb. 12, 2006

Sworn and subscribed to before me, a Notary Public, in and for the County of Bernalillo and State of New Mexico this 13 day of Feb. of 2006

PRICE $77.93

Statement to come at end of month.

ACCOUNT NUMBER C.82358

OFFICIAL SEAL
Elyn Sloane
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 4-5-06

CLA-22-A (R-1/93)

Exhibit B-8. Fact Sheet Distributed at the Public Scoping Meetings in February 2006

Southwest Regional Spaceport Fact Sheet

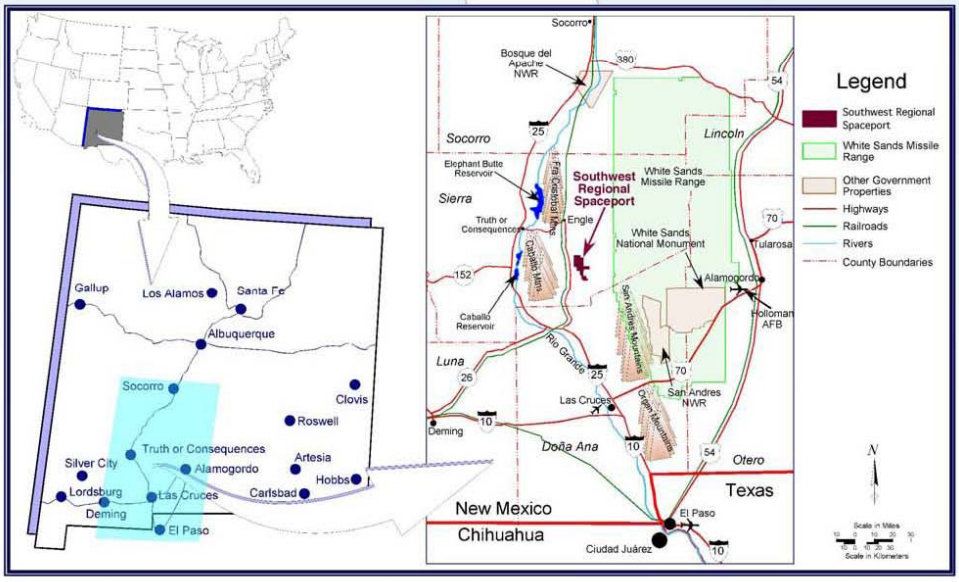
The State of New Mexico proposes to develop and operate a commercial space launch site, the Southwest Regional Spaceport (SRS), at a site located approximately 45 miles north of Las Cruces and 30 miles southeast of Truth or Consequences ***(see map below)***. The State proposes to operate this site for horizontal and vertical launches of suborbital reusable launch vehicles that would launch from the SRS and return to the SRS or adjacent lands. Some expendable launch vehicles could be launched from the SRS safely if their components would not fall outside the SRS or adjacent lands, including White Sands Missile Range. To operate a commercial launch facility, the State must obtain a license from the Federal Aviation Administration (FAA) Office of Commercial Space Transportation (AST).

Issuing a license is considered a major Federal action and is subject to environmental review as required by the National Environmental Policy Act of 1969 (NEPA). For this proposed action, the FAA will prepare an Environmental Impact Statement (EIS) to meet the requirements of NEPA. The proposed Federal action for this EIS is for the FAA to issue a launch site operator license to the New Mexico Economic Development Department (NMEDD) or its designated state agency. If approved, the FAA license will remain in effect for five years from the date of issuance unless surrendered, suspended, or revoked before the expiration of the term and is renewable upon application by the licensee.



A vertically launched Concept V3 vehicle will be analyzed in the EIS. Concept V3 vehicles consist of a single stage rocket with rocket powered vertical landing. The EIS will analyze a total of six vehicles, three horizontally launched concept vehicles and three vertically launched concept vehicles.

Location of the Proposed SRS with Respect to Surrounding Areas



How to Submit Comments

For More Information

If you are interested in the topics discussed at tonight's meeting, we encourage you to visit the FAA's website available at http://ast.faa.gov.

You can request a copy of the Executive Summary or Draft EIS (when available) at the registration table tonight or by one of the methods described below. Please keep in mind that the Draft EIS is likely to be a large document and may include multiple volumes.

The Draft EIS will be available on the FAA's website and paper copies of the Draft EIS will be available in local libraries.



Proposed SRS airfield area, looking southeast



A Concept H2 vehicle is one of three horizontally launched vehicles that will be analyzed in the EIS. Concept H2 vehicles use rocket powered take off and flight and unpowered horizontal landing.

To Submit Comments

If you have written comments on the information provided tonight, please turn in your prepared comments or fill out one of the written comment sheets provided, and turn it in at the registration table before you leave tonight.

Written comments can be mailed by March 3, 2006 to the FAA at:

Stacey M. Zee
FAA Environmental Specialist
Southwest Regional Spaceport EIS
c/o ICF Consulting
9300 Lee Highway
Fairfax, VA 22031

Written comments can be faxed by March 3, 2006 to the FAA at (703) 934-3951.

E-mail comments by March 3, 2006 at SRSEIS@icfconsulting.com.

B.2 Summary of Scoping Comments Received

The FAA required that all scoping comments be received no later than March 3, 2006. This deadline was extended to March 10, 2006. There were 40 comments received. These were compiled by the FAA into a Scoping Comments Matrix, shown in Exhibit B-9. The most common concerns expressed were impacts of the proposed Spaceport America (then referred to as Southwest Regional Spaceport or SRS) on the El Camino Real National Historic Trail and further restriction of the airspace used by general aviation. These and all other concerns are considered and addressed in the EIS.

Exhibit B-9. Spaceport America EIS Scoping Comments Matrix

Comment Number	Last Name	First Name	Title	Company/ Organization	Date Authored	Comment Summary
P001	Twombly	Ian	Government Analyst, Air Traffic Services	Aircraft Owners and Pilots Association	1/24/06	Airspace: Will the site be contained within the restricted areas of WSMR?
P002	Graham	Janis	Launch Approval Engineer	NASA, Jet Propulsion Laboratory	1/26/06	Add to Distribution List
P003	Swanberg	Charles			2/3/06	Airspace: Too much restricted airspace in the State already; killing the general aviation industry
P004	Courtright	John			2/3/06	Airspace: Consider the impact of additional restricted airspace on general aviation
P005	Dyer	Jim			2/3/06	Airspace: The restricted airspace associated with WSMR should be enough for the spaceport
P006	Cummins	Joseph			2/3/06	Biological Resources: Questions the impact to desert bighorn sheep, other wildlife, and critical habitat. Socioeconomics: Concerns about tax dollars spent and jobs created.
P007	Preissler	Ken			2/3/06	General support
P008	Kislak	Phil			2/6/06	Airspace: Too much restricted airspace in the State already
P009	Weston	Denise		Taschek Environmental Consulting	2/9/06	Questions purpose of scoping meetings

Exhibit B-9. Spaceport America EIS Scoping Comments Matrix (continued)

Comment Number	Last Name	First Name	Title	Company/ Organization	Date Authored	Comment Summary
P010	Berg	Jeff			2/12/06	Biological and Water Resources: Concerns about impacts to desert habitat and ground water
P011	Billstone	Leon		EAA, Chapter 555	2/20/06	Add to Distribution List
P012	Doyle	Kevin			2/22/06	Add to Distribution List
P013	Wilson	John			2/22/06	Cultural Resources: Impacts to El Camino Real and need for archaeological surveys. NEPA: Public meeting not advertised well enough
P014	Loomis	Melissa			2/24/06	General support and invitation to consult
P015	McCutcheon	Barr			2/24/06	General support
P016	Loomis	William			2/28/06	General support
P017	Bloom	John				Cultural Resources: Impacts to El Camino Real.
P018	Everett	Barbara			3/1/06	Proposed Action: Expand the land area under analysis. NEPA: Advertise meetings on the NMEDD web site. Water: Address water rights impacts.
P019	Hanson	Jeffrey			3/1/06	Add to Distribution List. Wants paper copies of all public information materials.

Exhibit B-9. Spaceport America EIS Scoping Comments Matrix (continued)

Comment Number	Last Name	First Name	Title	Company/ Organization	Date Authored	Comment Summary
P020	Kestner	Richard		Starchaser Industries, Inc.	3/1/06	Proposed Action: Avoid bias toward other vehicle concepts. Questions the suitability of NMEDD to operate a spaceport. More detail on WSMR's role in the spaceport and if WSMR fees will be charged.
P021	Kestner	Richard		Starchaser Industries, Inc.	3/1/06	Proposed Action: Wants Concept V-1 vehicles to be given highest priority in licensing.
P022	anonymous				3/1/06	NEPA: Use the Desert Exposure for public notices
P023	Waters	Judy			3/1/06	Air and Noise: Concerns about impacts from "sulphuric acid fuel the Shuttle will be using", especially to the Elephant Butte Dam
P024	Goetz	Charles D.		Cutter Cattle Company, Inc.	3/2/06	Health and Safety: Concerns about evacuation of the WSMR Call-Up Area during launches and other safety impacts to local population. Noise: Impacts to livestock and human annoyance.
P025	Fulton	Jean		Camino Real de Tierra Adentro Trail Association	3/2/06	Cultural Resources: Impacts to El Camino Real and archaeological sites.
P026	Williams	Heidi		Aircraft Owners and Pilots Association	3/2/06	Airspace: Consider the impact of additional restricted airspace on general aviation. Cumulative impacts of additional airspace restrictions.

Exhibit B-9. Spaceport America EIS Scoping Comments Matrix (continued)

Comment Number	Last Name	First Name	Title	Company/ Organization	Date Authored	Comment Summary
P027	Haynsworth	Spencer		Camino Real de Tierra Adentro Trail Association	3/3/06	Cultural Resources: Impacts to El Camino Real and archaeological sites.
P028	Sanders	Tim	Assistant District Manager	Bureau of Land Management, Las Cruces District Office	3/3/06	Cultural Resources: Impacts to El Camino Real and archaeological sites. Land Use: Impacts to grazing allotments, including water rights. Biological Resources: Impacts to wildlife and habitat quality. Visual: BLM will strictly enforce a VRM II classification.
P029	Fuller	Eric			3/3/06	Socioeconomics: Concerns about viability of spaceport and number of jobs it will create. NEPA: Requests better public notification. Health and Safety: Concerns about debris and chemical hazards.
P030	Rundell	Linda	State Director	Bureau of Land Management, New Mexico State Office	3/3/06	Cultural Resources: Impacts to El Camino Real. Visual: BLM will strictly enforce a VRM II classification.
	Krakow	Jere	Superintendent	National Park Service, National Trails Office, IMR - Santa Fe		
P031	Waters	Judy			2/24/06	Concerns about damage to the Elephant Butte Dam. Air: Impacts from propellants.
P032	Wilson	Margot		Sierra Club	3/3/06	Mitigation: EIS should include mitigation plans for impacts to water, soils, wildlife and plants, and air.

Exhibit B-9. Spaceport America EIS Scoping Comments Matrix (continued)

Comment Number	Last Name	First Name	Title	Company/ Organization	Date Authored	Comment Summary
P033	Rivera	Leonardo			2/15/06	Socioeconomics: The economic impact of the spaceport and associated road improvements
P034	Worthington	Bob	President	New Mexico Pilots Association	2/15/06	Airspace: Consider impacts of any additional restricted airspace.
P035	Simcoe	Terry	Chief Aviation Planner	New Mexico Aviation Division	2/16/06	Airspace: Consider impacts of any additional restricted airspace, Notices to Airmen, and Safety in areas west of WSMR restricted area.
P036	Woods	Ben			2/1606	General support
P037	Wittern	Klaus			2/1606	Land use: Potential impacts from long-term infrastructure and expansion into surrounding areas. Cultural Resources: Impacts to El Camino Real.
P038	Kestner	Richard		Starchaser Industries, Inc.	2/1606	General support
P039	Beckett	Patrick	President	Camino Real de Tierra Adentro Trail Association	2/16/06	Cultural Resources: Impacts to El Camino Real.
P040	Berg	Sarah			2/16/06	Biological Resources: Impacts to Bosque del Apache National Wildlife Refuge and the migratory flyway.
P041	Fuller	Eric			3/12/06	Resent March 3rd comment and asked for acknowledgement of receipt.

B.3 Scoping Comments Received from the BLM and NPS

Scoping comments numbers P028 (from Tim Sanders, BLM, Las Cruces District Office) and P030 (Linda Rundell, BLM State Director; and Jere Krakow, NPS, National Trails Office, InterMountain Region - Santa Fe) are reproduced here because they are the detailed comments from two of the cooperating agencies in this EIS.

B.3.1 Comment from the BLM, Las Cruces District Office

This letter begins on the next page.

United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Las Cruces District Office
1800 Marquess
Las Cruces, New Mexico 88005
www.nm.blm.gov

IN REPLY REFER TO:
2800 (03000)

Ms. Stacey M. Zee
FAA Environmental Specialist
Southwest Regional Spaceport EIS
c/o ICF Consulting
9300 Lee Highway
Fairfax, VA 22031

Dear Ms. Zee:

We appreciate the opportunity to provide our Scoping comments for the Southwest Regional Spaceport Environmental Impact Statement (EIS). As you are aware, the Las Cruces District Office (LCDO) of the Bureau of Land Management (BLM) has management responsibilities on public land surrounding the proposed Southwest Regional Spaceport (SRS).

We would like to reiterate that our comments and involvement are based on the requirement of not closing access of BLM land in support of the SRS. If the SRS proposal changes and BLM land is proposed for closure our comments and involvement as a cooperating agency for the SRS EIS would change dramatically.

With regard to the EIS, we did attend two of your public scoping meetings (Las Cruces and Truth or Consequences) and have reviewed the information provided at the meeting as well as the information provided in the Notice of Intent. We have the following questions and comments for your consideration as you develop the EIS. If further information is received, these comments may or may not apply.

1. The proposed spaceport facilities are located in the vicinity of El Camino Real de Tierra National Historic Trail. The facilities plan currently calls for improving the gravel county road that follows very closely the path of the El Camino Real de Tierra National Historic Trail, and for building facilities both to the east and west of the historic trail which is accessed most easily from that county road. Some of the proposed facilities appear to lie directly on top of the trail route and significant trail resources; others lie within the trail corridor that BLM has proposed to protect through the application of strict Visual Resource Management (VRM) II classification criteria.

2. BLM is promoting the gravel road as a back country experience for trail visitors, as we are asked to do under the National Trails System Act, the governing legislation for National historic trails. National historic trails are made up of three elements: the route, the history that the historic trail designation commemorates, and the significant sites along the route. While not strictly intended for use as continuous long-distance modern travel routes, in the sense of the "through-hiking" National scenic trails such as the Appalachian Trail or the Continental Divide trail, they are intended to afford the public opportunities to get out to see "where history happened," and where possible, to afford outdoor recreation opportunities.

3. Any access routes from the current county road running east to the proposed spaceport facilities will of necessity cut across the Camino Real historic trail. In this section of the route, the trail is preserved as the vestiges of the 300-year old wagon road that brought the earliest European immigrants to northern New Mexico, and indeed, to what would become the United States west of the eastern seaboard. The trail may be considered to be the single largest artifact of the colonial period in New Mexico, and one of the most valuable, if not the most valuable single marker of the Hispanic experience in the southwest.

4. The Camino Real historic resources in the vicinity of the spaceport facilities are the best-preserved sections of the historic road still extant along the 1,200 miles that make up the international route. There is no other place along the National historic trail where visitors will be able to experience the unchanged, historic landscape of the most perilous section of the trail, the infamous Jornada del Muerto. The current view sheds, the still-visible wagon road, and the density of historic sites--springs where the first colonists were able to assuage their overpowering thirst, trail landmarks that assured them that they were making progress towards their goals, campsites, and surface artifacts dating back hundreds of years--all these make this section of the trail particularly sensitive and invaluable for the National trails system.

5. We have worked with the local land-managing agencies, that is, with the BLM and the State of New Mexico, in the development of a comprehensive management plan for the trail that identifies this section and its associated sites as "high potential" trail sites and route segments. BLM has changed its VRM classification in this stretch of the trail to provide increased protections to the visual resources in the trail viewshed, and the BLM has committed to protecting a 5-mile wide corridor on either side of the historic route from visual intrusions.

6. The alternatives mentioned in the Federal Register Notice of Intent to prepare an EIS and conduct public scoping meetings suggest that the alternatives under consideration include issuing a launch site operator permit for horizontal launch concept vehicles only, or vertical only, or a subset of concept vehicles. The proposed horizontal launch facilities are currently sited directly atop the National historic trail and the trail resource of Paraje del Aleman. The proposed vertical launch components require an access route to be constructed across the National historic trail, in the vicinity of the historically significant

sites in the Yost Draw section of the trail. Any improvements of the country road will impact the back country experience, and given the proximity of the county road and the historic trail traces, may have a direct impact on historic road segments as well. In addition, any cross-country travel by members of the public seeking a closer vantage point for launch viewing, etc., will bring people directly across the historic route, trail segments, and historic sites associated with trail use.

7. Finally, we should encourage the FAA to consider alternative siting for the launch facilities and other proposed developments that will help BLM meet its commitments to preserving and protecting the National historic trail it administers and the historic sites it manages on public land in the vicinity of the proposed launch facilities. We can provide the FAA with maps of the trail, the VRM classification of the land in the vicinity of the development, scholarly reports on the trail resources, archaeological resource information on the trail resources, and the comprehensive management plan adopted by the Department of the Interior for the National historic trail.

8. Please address the issue of livestock grazing for each of the alternatives. We have concerns regarding BLM's management of the livestock program. If the designated State land outlined in the proposal are to be used for the Southwest Regional Spaceport (SRS), and are therefore removed from agricultural use, the State land grazing leases for the grazing permits for six associated BLM grazing allotments will be impacted. The potentially impacted allotments are illustrated in Table 1 with projected permitted use following adjustment.

Table 1. Summary of Allotments

Allotment Name/No.	**Operator Name**	**Current Total Permitted Use**	**Projected Permitted Use**
Bar Cross Ranch No. 06020	Ben and Jane Cain	740 Animal Units	470 Animal Units
Lewis Cain Ranch No. 16022	Phil and Judy Wallin	719 Animal Units	623 Animal Units
McClenan Ranch No. 16056	Robert Brown	294 Animal Units	287 Animal Units
Flat Lake Allotment No. 16053	Ranch Improvement Company	643 Animal Units	642 Animal Units
W Spear Bar No. 16019	Ronald C. Woolf	170 Animal Units	169 Animal Units
Buckhorn Allotment No. 16017	Doug Davis	504 Animal Units	0 Animal Units

The BLM determines the carrying capacity of these allotments by deriving forage acres from Federal, State, and deeded surface acres. It is assumed the identified State land

would be removed from agricultural use, therefore, the allotments named above would decrease in acres, and subsequently, total permitted use. It is also assumed deeded land located within or adjacent to, the identified State land, would also be included in the proposal, therefore, the livestock numbers associated with these parcels of land would also be removed from agricultural use.

Reductions in grazing permits would cause the owner/rancher/permittee to incur a financial loss due to the reduction of operations; however, a more significant loss would be to the market value of the ranch, or allotment. The market value of a ranch is directly related to the number of livestock an allotment can graze, also known as the permitted use. For example, by removing the State land and associated deeded land from agricultural use on the Bar Cross Ranch, the grazing permit would decrease by approximately 36 percent. See Table 2 below for a summary of potential acreages and animals units that would be withdrawn from agricultural use.

Table 2. Summary of Allotments

BLM Grazing Allotment	State Land Acres	State Lease AUMs	State Lease CYLs	Deeded Acres	Deeded AUMs*	Deeded CYLs*	TOTAL AUMs	TOTAL CYLs
Bar Cross Ranch	10,022	3,195	266	120	42	4	3,235	270
Lewis Cain Ranch	5,570	1,143	95	180	6	1	1,149	96
McClenan Ranch	640	84	7	0	0	0	84	7
Flat Lake Allotment	0	0	0	100	9	1	9	1
W Spear Bar	550	17	1	0	0	0	17	1
Buckhorn Allotment	60	4	0	0	0	0	4	0

Definitions

*AUM : Animal Unit Month or the amount of forage needed to sustain 1 mature cow, 1 cow/calf pair, 1 bull, 1 horse, 5 sheep, 5 goats, or 1 buffalo for 1 month.

*CYL: Cattle Yearlong

As Table 2 illustrates, the Bar Cross Ranch would lose approximately 3,195 animal unit months (AUMs) due the removal of State land for agricultural use; in addition, a decrease of approximately 42 AUMs would result due to loss of included deeded land within the designated State land. This decrease is equivalent to 266 Cattle Yearlong (CYL) from State land and 4 CYL from deeded land, or approximately a 36 percent decrease in the total permitted grazing on this allotment. The Lewis Cain Ranch No. 16022 would be reduced by 13 percent total permitted use.

9. Base waters and other range improvements associated with the land identified for use by the Spaceport would impact the allotments' grazing permits and overall livestock operations.

BLM grazing permits are derived from water-based grazing rights, therefore, the number of cattle an allotment can graze is not only tied to surface acres, but also to the water sources offered for base water when a permittee applies to graze an allotment. In other words, the permittee must show control of the base water associated with the allotment to receive full grazing preference. By showing control of base water(s), the owner/ranch becomes the grazing permit holder, referred to as the permittee. The Bar Cross Ranch No. 06020 has two base waters located on land identified for use by the Spaceport, and the Lewis Cain Ranch No. 16022 has three base waters. See Table 3 below for a summary of these base waters and the number of cattle yearlong associated with those water sources:

Table 3. Allotment Base Waters Potentially to be Withdrawn from Agricultural Use

Allotment	Legal Location	Base Water	Tenure	Range CYL
Bar Cross Ranch	T.15 S., R. 2 W., Section 24	Headquarters	Patented	4
Bar Cross Ranch	T. 15 S., R. 2 W., Section 28	Pipeline Tank	Patented	1
Lewis Cain Ranch	T. 16 S., R. 2 W., Section 16	Miller Tank	State	0
Lewis Cain Ranch	T. 16 S., R. 2 W., Section 25	Upham Well	Patented	60
Lewis Cain Ranch	T. 16 S., R. 1 W., Section 9	Fifty Nine Well	Patented	70

A total of 5 CYL would be subtracted from the Bar Cross Ranch grazing permit and a total of 130 CYL would be subtracted from the Lewis Cain Ranch grazing permit attributable the change in use of the State and deeded lands that would be utilized for the Spaceport.

In addition, numerous allotment boundary fences, interior pasture fences, pipelines, drinking troughs, earthen reservoirs, cattleguards, etc., and subsequent uses of these range improvements would be affected by this proposal.

10. Any other State and/or deeded land not identified in this proposal that later would be considered for use by the Spaceport would further affect BLM allotments and grazing permits.

11. BLM assumes that regardless of changes in use of State land for the construction and operation of the Southwest Regional Spaceport, multiple use of Federal land, and therefore, livestock grazing, will remain a viable use of Federal land.

12. Further restrictions may be imposed to livestock grazing due to operations of the Spaceport; however, without further information, it is difficult to speculate as to what those restrictions may include at this time.

13. All information in the previous five (#8-#12) comments apply to this proposal only; if the proposal changes in the future, it is expected to impact BLM grazing allotments and livestock grazing differently.

14. The Federal Register Notice makes reference to "contingency landings" that may occur on BLM land. It is not clear on what this means or what it might entail. It definitely needs to be elaborated on in the EIS.

15. This proposed action (with a larger footprint involving both State and BLM lands) had proceeded to a draft EIS and draft biological assessment stage approximately 10 years ago. There may be information in those earlier documents that could be useful in this EIS.

16. The proposed horizontal runways cross an existing 345Kv powerline. Powerline issues will require burying a portion or re-routing a portion to avoid the spaceport. Re-routing may involve public lands, depending on the desired re-route location.

17. It is unclear from the Federal Register Notice whether or not all or only portions of the spaceport facility will be fenced. The type of fence, area to be fenced, etc., will have to be analyzed in the EIS. For example, if the area is large enough to enclose water sources, this would have an impact to wildlife. If the larger State land parcel is to be fenced (rather than a smaller footprint within the larger State parcel), this may also have impacts to wildlife. For example, if the larger area is fenced and livestock grazing is excluded, wildlife habitat within the larger fenced area of State land may benefit. Again, access to water resources may be of concern. With a more clear picture of how the facility will be fenced and operate, the analysis can determine the need to mitigate such things as habitat fragmentation and potential loss of access to water sources.

18. There is an existing wildlife water development located very close to the southwest corner of the proposed vertical launch area. This project was developed with Habitat Stamp Program funds to benefit antelope and other wildlife in the area. The project is known as the Prisor Hill Catchment. This project will have to be relocated away from the proposed facility. At the same time, mitigation for loss of waters due to fencing of the spaceport facility (either by inclusion within a fenced area or impeded access due to project fencing) by developing additional waters might need to be considered.

19. Many other Habitat Stamp Projects have been developed on BLM land in the general project area to enhance habitat for pronghorn and other grassland species (i.e., water developments and brush control projects). The proposed spaceport is located on State land that occurs within higher quality grassland habitats within the Jornada Draw management area. The project could displace pronghorn onto adjacent lesser quality habitats. This needs to be considered in the EIS. Some consideration might be needed for potential off-site mitigation to enhance the quality of adjacent habitats.

20. It is proposed that in the future, daily launches were expected. Displacement of wildlife as a result of the noise and activity associated with launch and landing activities will have to be addressed in the EIS as well.

21. The proposed project is located within historic aplomado falcon habitat (federally listed endangered). The predictive model developed by the New Mexico Cooperative Fish and Wildlife Research Unit (Characterizing and Predicting Suitable Aplomado Falcon Habitat for Conservation Planning in the Northern Chihuahuan Desert) can be used to identify potential falcon habitat within the project area. In addition, historical nest site information can be related to habitat affected by the proposed action. The U.S. Fish and Wildlife Service (USFWS) service has been contacted regarding consultation requirements. One discussion point was the potential for displacement due to noise levels associated with the proposed spaceport facility. The EIS will have to determine the level of noise and distance from the facility that wildlife may be potentially affected.

If the aplomado falcon is listed as a non-essential experimental population under section 10j of the ESA (ruling expected sometime in May 2006), consultation may or may not be necessary (rules for consultation change to conferencing). A draft biological assessment had been prepared about 10 years ago when the first spaceport was proposed in this area.

22. The LCDO has a list of the other special status species that are known to occur within Sierra County. The BLM understands that the consultants have already conducted biological surveys in the project area. The consultant will have to compare their findings of species and habitat types against the LCDO list to determine which species may potentially occur within the project area.

23. One issue that should be addressed in the EIS is the potential for public and/or administrative access to be affected by the proposed facility.

24. The BLM understands that the State grazing lease is being purchased from the current lessee. This will undoubtedly have an impact on the BLM permit/lease. Any changes in grazing management such as new fences, new waters, change in season of use, etc., as a result of the State land being removed from the existing livestock operation will impact wildlife resources.

25. The lands described below are within Visual Resource Management (VRM) Class IV and VRM Class III:

T. 15 S., R. 1 W., T.15 S., R. 2 W.;
T. 16 S., R. 1 W., T. 16 S., R. 2 W.

Class III: The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

Class IV: The objective of this class is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities can dominate the landscape and be the major focus of viewer attention; however, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

The BLM has proposed to protect the El Camino Real de Tierra National Historic Trail through the application of strict VRM II classification criteria. VRM Class II is described as: Retain the existing character of the landscape. The level of change to the character of the landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

26. The proposed project will include the need for additional roads and utilities across public land. SRS will have to apply for the use authorization (right-of-way) through the BLM, Las Cruces District Office. The proposed actions will have to be compatible with existing authorizations.

We thank you for the opportunity to provide these comments during the scoping period for the EIS, and look forward to assisting you in this effort as a Cooperating Agency. If we can clarify any of these comments or provide further information, please contact Lori Allen via telephone at (505) 525-4454 or via email: Lori_Allen@nm.blm.gov

Sincerely,

Tim L. Sanders
Assistant District Manager
Division of Multi-Resources

03000:LAllen:cp:3/3/06:x4375:SRSScopingCommLtr

B.3.2 Comment from the BLM, New Mexico State Office and NPS, National Trails Office

This letter begins on the next page.

United States Department of the Interior

El Camino Real de Tierra Adentro National Historic Trail

BUREAU OF LAND MANAGEMENT
Division of Resources
P.O. Box 27115
Santa Fe, New Mexico 87502-0115
(505) 438-7454

NATIONAL PARK SERVICE
National Trails Office, IMR - Santa Fe
P.O. Box 728
Santa Fe, New Mexico 87504-0728
(505) 988-6742

March 3, 2006

Ms. Stacey Zee
Federal Aviation Administration Environmental Specialist
Southwest Regional Spaceport EIS
c/o ICF Consulting
9300 Lee Highway
Fairfax, VA 22031

Dear Ms. Zee:

We appreciate the opportunity afforded us by the Federal Aviation Administration to provide input into the planning process for the proposed Southwest Regional Spaceport near Upham, New Mexico. The National Park Service (NPS) and the Bureau of Land Management (BLM) share administrative responsibilities for the congressionally-designated El Camino Real de Tierra Adentro National Historic Trail. We would like to bring the following information to your attention for your consideration as you prepare the Environmental Impact Statement (EIS) and develop mitigation measures for the impacts to resources that will arise from implementing the proposal in its current configuration.

The proposed spaceport, as described in the briefings led by you and by Mr. Richard Smith, includes facilities that will lie very near, and possibly directly atop the route and historic traces of El Camino Real de Tierra Adentro National Historic Trail. There are three significant areas of potential impact from the current facilities siting plan and the proposed improvements to local infrastructure.

First, the facilities plan currently calls for improving the gravel county road that follows very closely the path of the historic Camino. The BLM and NPS, as trail administrators, have been promoting the gravel road as a back country experience for trail visitors. This use of the gravel road fits the goals of the National Trails System Act, the governing legislation for national historic trails. National historic trails are made up of three elements: the route, the history that the historic trail designation commemorates, and the significant sites along the route. While not strictly intended for use as continuous long-

distance modern travel routes, in the sense of the "through-hiking" national scenic trails such as the Appalachian Trail or the Continental Divide trail, designated national historic trails are intended to offer the public opportunities to get out to see "where history happened," and, where possible, to offer outdoor recreation opportunities that help visitors connect with historic trail use. The National Trails System Act suggests trail travel should fit, as closely as possible, the modes of travel used in the period of trail significance. In this case, the rough gravel road surface helps the visitor capture some of the feeling of the trail travel experienced by the colonists in 1598 who traversed the trail on foot, in wagons, and on horses, mules, or burros. Improvements to the county road that create a paved surface will impact the back country experience, and, given the proximity of the county road and the historic trail traces, may have a direct impact on historic road segments as well.

If, as expected, the spaceport operations draw visitors to the area, we anticipate that they may use the county road as a remote viewing site for launches and landings. Cross-country travel by members of the public seeking a closer vantage point for launch viewing, etc., will bring people directly across the historic route, trail segments, and historic sites associated with trail use.

The second area of impact concerns the extant physical traces of the centuries-old wagon road. The current plan calls for building facilities both to the east and west of the historic trail, and accessing those facilities from the aforementioned gravel road, which lies to the west of the historic trail in this area. Any access routes from the current county road running east to the proposed spaceport facilities will of necessity cut across the Camino Real historic trail. In this section of the route, the trail is preserved as the vestiges of the 300-year old wagon road that brought the earliest European immigrants to northern New Mexico, and, indeed, to what would become the United States west of the eastern seaboard. The trail may be considered to be the single largest artifact of the colonial period in New Mexico, and one of the most valuable, if not the most valuable single marker of the Hispanic experience in the Southwest.

The Camino Real historic resources in the vicinity of the proposed spaceport facilities are some of the best-preserved sections of the historic road still extant along the 1,200 miles that make up the international route, and are the best-preserved sections in the United States. The proposed horizontal launch facilities are currently sited directly atop the national historic trail and the trail resource of Paraje del Aleman. The proposed vertical launch components require an access route to be constructed across the national historic trail, in the vicinity of the historically significant sites in the Yost Draw section of the trail.

The final area of potential impacts involves the landscape and viewsheds along the historic trail. There is no other place along the national historic trail where visitors will be able to experience the unchanged, historic landscape of the most perilous section of the trail, the infamous Jornada del Muerto. The current viewsheds, the still-visible wagon road, and the significant historic sites--springs where the first colonists were able to assuage their overpowering thirst, trail landmarks that assured them that they were

making progress towards their goals, campsites, and surface artifacts dating back hundreds of years--all these make this section of the trail particularly sensitive and invaluable as part of our national trails system.

Many of the proposed facilities lie within the trail corridor that BLM has proposed to protect through the application of strict Visual Resource Management (VRM) stipulations in the Upham area. We have worked with the local land-managing agencies, that is, with the BLM and the State of New Mexico, in the development of a comprehensive management plan for the trail that identifies this section and its associated sites as "high potential" trail sites and route segments. BLM has changed its VRM classification in this stretch of the trail to provide increased protections to the visual resources in the trail viewshed, and the BLM has committed to protecting a five-mile wide corridor on either side of the historic route from visual intrusions.

In response to the preliminary scoping assessment, we have provided your planning team with maps of the trail, the VRM classification of the lands in the vicinity of the development, references to scholarly reports on the trail resources, archaeological resource information on the trail resources, and the comprehensive management plan adopted by the Department of the Interior for the national historic trail.

We look forward to commenting on the final EIS when it is transmitted for review. In the meantime, please do not hesitate to contact Michael Taylor (NPS) at 505-988-6742 or Sarah Schlanger (BLM) at 505-438-7454 if we can provide additional information.

Sincerely,

Linda S. C. Rundell, State Director
Bureau of Land Management
New Mexico, Texas, Oklahoma
New Mexico State Office

Jere L. Krakow, Superintendent
National Park Service
National Trails Office, IMR - Santa Fe

B.4 Public Review and Comment on Draft EIS

Public review and comment on the Draft EIS was initiated with publication of the Environmental Protection Agency's Notice of Availability in the Federal Register on July 3, 2008 (73 FR 38204) (Exhibit B-10). The FAA published an additional Notice of Availability, Public Comment Period, and Public Hearings and Request for Comment in the Federal Register on July 9, 2008 (73 FR 39370) (Exhibit B-11). Notices announcing the availability of the Draft EIS and the scheduled public hearings were placed in local newspapers. The newspapers are listed in Exhibit B-12, and the notices published are shown in Exhibit B-13.

Copies of the Draft EIS were mailed to agencies, tribes, organizations, and private citizens who had requested copies. Copies of the Draft EIS were also made available at public libraries in Alamogordo, Anthony, Cloudcroft, Hatch, Las Cruces, Mescalero, Sunland Park, and Truth or Consequences, New Mexico. Copies of the Draft EIS were also provided to the media for print, Television, and radio formats. Recipients of the Draft EIS are listed in Chapter 8 of this EIS.

The public review and comment period lasted 45 days, ending on August 18, 2008. However, comments received after that date have been considered by the FAA. Six public hearings were held: two on August 5, 2008 in Alamogordo, NM; two on August 6, 2008 in Truth or Consequences, NM; and two on August 7, 2008 in Las Cruces, NM. Oral and written comments were received at the meetings, and the FAA received written comments during the comment period via mail, fax, and electronic mail. Appendix N contains the public comments received, transcripts of the six public hearings, comment identification, and FAA's responses. The FAA responded to all substantive comments, and included in the Final EIS any necessary changes or edits resulting from the comments received.

Exhibit B-10. Notice of Availability (73 FR 38204) Published July 3, 2008.

ENVIRONMENTAL PROTECTION AGENCY

[ER–FRL–8583–3]

Environmental Impacts Statements; Notice of Availability

Responsible Agency: Office of Federal Activities, General Information (202) 564–7167 or *http://www.epa.gov/compliance/nepa/.*

Weekly receipt of Environmental Impact Statements

Filed 06/23/2008 through 06/27/2008.

Pursuant to 40 CFR 1506.9.

EIS No. 20080255, Final EIS, AFS, UT, Indian Springs Road Realignment, Reducing Adverse Impacts to Watershed and Fisheries, U.S. Army COE Section 404 Permit, Uinta-Wasatch-Cache National Forest, Wasatch County, UT, Wait Period Ends: 08/18/2008, Contact: Jim Percy 435–654–0470.

EIS No. 20080256, Draft EIS, NOA, 00, Amendment 29 Reef Fish Fishery Management Plan, Effort Management in the Commercial Grouper and Tilefish Fisheries, Reducing Overcapacity, Gulf of Mexico, Comment Period Ends: 08/18/2008, Contact: Roy E. Crabtree 727–824–5301.

EIS No. 20080257, Draft EIS, FAA, NM, Spaceport America Commercial Launch Site, Proposal to Develop and Operate, Issuance of License, Sierra County, NM, Comment Period Ends: 08/18/2008, Contact: Stacey M. Zee 202–267–9305.

EIS No. 20080258, Draft EIS, NHT, 00, Corporate Average Fuel Economy (CAFE) Proposed Standards for Model Year 2011–2025 Passenger Cars and Light Trucks, Implementation, Comment Period Ends: 08/18/2008, Contact: Carol Hammel-Smith 202–366–5206.

This document is available on the Internet at: *http://www.nhtsa.dot.gov.*

Amended Notices

EIS No. 20080242, Draft EIS, BLM, WV, East Lynn Lake Coal Lease Project, Proposal to Lease Federal Coal that lies Under Nine Tracts of Land for Mining, Wayne County, WV, Comment Period Ends: 09/24/2008, Contact: Chris Carusona 414–297–4463.

Revision of FR Notice Published 06/27/2008: Correction to project's state location from VA to WV.

Dated: June 30, 2008.

Robert W. Hargrove,

Director, NEPA Compliance Division, Office of Federal Activities.

[FR Doc. E8–15144 Filed 7–2–08; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OPP–2007–0884; FRL–8369–7]

Experimental Use Permit; Receipt of Revised Application

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: This notice announces receipt of a revised application 264–EUP–RUG from Bayer CropScience requesting an experimental use permit (EUP) for *Bacillus thuringiensis* Cry2Ae protein and the genetic material necessary for its production (pTEM12) in Event GHB 119 or GHB 714 cotton plants and the *Bacillus thuringiensis* Cry1Ab protein and the genetic material necessary for its production (pTDL004 or pTDL008) in Event T303–3 or T304–40 cotton plants. In some protocols, Cry 2Ae will be used with the previously registered *Bacillus thuringiensis* Cry1Ab protein. The Agency has determined that the application may be of regional and national significance. Therefore, in accordance with 40 CFR 172.11(a), the Agency is soliciting comments on this application.

DATES: Comments must be received on or before August 4, 2008.

ADDRESSES: Submit your comments, identified by docket identification (ID) number EPA–HQ–OPP–2007–0884 by one of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the on-line instructions for submitting comments.
- *Mail:* Office of Pesticide Programs (OPP) Regulatory Public Docket (7502P), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460–0001.
- *Delivery:* OPP Regulatory Public Docket (7502P), Environmental Protection Agency, Rm. S–4400, One Potomac Yard (South Bldg.), 2777 S. Crystal Dr., Arlington, VA. Deliveries are only accepted during the Docket's normal hours of operation (8:30 a.m. to 4 p.m., Monday through Friday, excluding legal holidays). Special arrangements should be made for deliveries of boxed information. The Docket Facility telephone number is (703) 305–5805.

Instructions: Direct your comments to docket ID number EPA–HQ–OPP–2007–0884. EPA's policy is that all comments received will be included in the docket without change and may be made available on-line at *http://www.regulations.gov,* including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through regulations.gov or e-mail. The regulations.gov website is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through regulations.gov, your e-mail address will be automatically captured and included as part of the comment that is placed in the docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the docket are listed in the docket index available in regulations.gov. To access the electronic docket, go to *http://www.regulations.gov,* select "Advanced Search," then "Docket Search." Insert the docket ID number where indicated and select the "Submit" button. Follow the instructions on the regulations.gov website to view the docket index or access available documents. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either in the electronic docket at *http://www.regulations.gov,* or, if only available in hard copy, at the OPP Regulatory Public Docket in Rm. S–4400, One Potomac Yard (South Bldg.), 2777 S. Crystal Dr., Arlington, VA. The hours of operation of this Docket Facility are from 8:30 a.m. to 4 p.m., Monday through Friday, excluding legal holidays. The Docket Facility telephone number is (703) 305–5805.

Exhibit B-11. Notice of Availability, Public Comment Period, and Public Hearings and Request for Comment (73 FR 39370) Published July 9, 2008.

covering management of Federal advisory committees.

Issued in Washington, DC, on the 25th day of June, 2008.

Shelley Row,

Director, ITS Joint Program Office.

[FR Doc. E8–15602 Filed 7–8–08; 8:45 am]

BILLING CODE 4910–HY–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Office of Commercial Space Transportation; Notice of Availability and Request for Comment on a Draft Environmental Impact Statement (EIS) for the Spaceport America Commercial Launch Site, Sierra County, NM

AGENCY: The Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTIONS: Notice of Availability, Notice of Public Comment Period, Notice of Public Hearings, and Request for Comment.

SUMMARY: In accordance with National Environmental Policy Act (NEPA) regulations and FAA Order 1050.1E, Change 1, the FAA is announcing the availability of and requesting comments on the Draft EIS for the Spaceport America Commercial Launch Site, Sierra County, New Mexico. The Federal Aviation Administration (FAA), Office of Commercial Space Transportation is the lead Federal agency for the development of this EIS. Cooperating agencies include the Bureau of Land Management; the National Park Service; United States Department of the Army, White Sands Missile Range (WSMR); and the National Aeronautics and Space Administration.

The Draft EIS was prepared in response to an application for a launch site operator license from the New Mexico Spaceport Authority (NMSA). Under the Proposed Action, the FAA would issue a launch site operator license to NMSA to operate a launch facility capable of accommodating both horizontal and vertical launches of suborbital launch vehicles (LVs). The vehicles may carry space flight participants, scientific experiments, or other payloads. The proposed site is located in Sierra County, approximately 30 miles southeast of Truth or Consequences, New Mexico, and 45 miles north of Las Cruces, New Mexico. The Draft EIS addresses the potential environmental impacts of issuing a launch site operator license for horizontal launches only (Alternative 1), vertical launches only (Alternative 2), and the No Action Alternative.

DATES: The public comment period for the NEPA process begins with the publication of the U.S. Environmental Protection Agency's notice in the **Federal Register** on July 3, 2008. To ensure that all comments can be addressed in the Final EIS, comments on the draft must be received by the FAA no later than August 18, 2008.

A paper copy and a CD version of the Draft EIS may be reviewed for comment during regular business hours at the following locations:

Hatch Public Library, P.O. Box 289, Hatch, NM 87937

Sunland Park Community Library, 984 McNutt Road, Bldg. F–10, Sunland Park, NM 88063

Thomas Branigan Memorial Library, 200 E Picacho Ave., Las Cruces, NM 88001

Valley Public Library, 136 N. Main, Anthony, NM 88021

Alamogordo Public Library, 920 Oregon Ave., Alamogordo, NM 88310

Mescalero Community Library, 101 Central Ave., Mescalero, NM 88340

Michael Nivision Library, 90 Swallow Place, Cloudcroft, NM 88317

Truth or Consequences Public Library, 325 Library Lane, Truth or Consequences, NM 87901

Truth or Consequences Public Library—Downtown, 401 Foch St., Truth or Consequences, NM 87901

The FAA is holding a total of six public hearings on the Draft EIS. At these meetings, the FAA will present information about the Draft EIS and the environmental review process. The purpose of the public hearings is to afford the public and other interested parties the opportunity to comment on the economic, social, and environmental effects of the Proposed Action. Members of the public will be provided the opportunity to submit both written and oral comments. The FAA will transcribe oral comments. All comments received during the comment period will be given equal weight and be taken into consideration in the preparation of the Final EIS. The public hearings will be held at the following locations.

- August 5, 2008, 2 p.m. and 6:30 p.m., Alamogordo City Hall (Commission Chambers), 1376 E. Ninth St., Alamogordo, NM (505–439–4205).
- August 6, 2008, 2 p.m. and 6:30 p.m., Truth or Consequences Civic Center, 400 West Fourth St., Truth or Consequences, NM (575–894–4400).
- August 7, 2008, 2 p.m. and 6:30 p.m., Doña Ana County Government Center, 845 North Motel Blvd., Las Cruces, NM (575–647–7200).

The FAA has posted the Draft EIS on the FAA Web site at *http://ast.faa.gov*. In addition, CDs with the Draft EIS were sent to persons and agencies on the distribution list (found in Chapter 8 of the Draft EIS).

ADDRESSES: Comments regarding the Draft EIS should be mailed to FAA Spaceport America EIS, c/o ICF International, 9300 Lee Highway, Fairfax, VA 22031. Comments also can be sent by e-mail to *SpaceportAmericaEIS@icfi.com* or fax to (703) 934–3951.

ADDITIONAL INFORMATION: Under the Proposed Action, the FAA would issue a launch site operator license to NMSA that would allow the State to operate the proposed Spaceport America Commercial Launch Site for both horizontal and vertical suborbital LV launches. Horizontal LVs would launch and land at the proposed Spaceport America airfield. Vertical LVs would launch from Spaceport America and either land at Spaceport America or at WSMR. Rocket-powered vertical landing vehicles would land on either the Spaceport America airfield or a vertical launch/landing pad.

In addition, the Proposed Action includes construction of facilities needed to support the licensed launch activities at the proposed launch site. Development of Spaceport America infrastructure would occur in two phases. The total area of land disturbed by construction would be approximately 970 acres; the total area of the final facilities footprint would be approximately 145 acres. The proposed Spaceport America boundary would encompass approximately 26 square miles. This area currently contains both State and private land.

Operational activities in support of the Proposed Action would begin as soon as the phased construction activities related to the Proposed Action were completed. The operational activities that may have environmental consequences and would support, either directly or indirectly, licensed launches include:

- Transport of Launch Vehicles to the Assembly or Staging Areas.
- Transport and Storage of Rocket Propellants and Other Fuels.
- Launch, Landing and Recovery Activities for Horizontal Vehicles.
- Launch, Landing and Recovery Activities for Vertical Vehicles.
- Other Activities.

—Ground-Based Tests and Static Firings.

—Training.

—X Prize Cup Events.

The FAA identified two alternatives and the No Action Alternative to the

Exhibit B-11. continued . . .

Proposed Action, which are considered in the draft EIS. Under Alternative 1, the FAA would consider issuing a launch site operator license only for the operation of a launch site to support horizontal launches. This is considered a feasible alternative because a significant number of launches of horizontal LVs are projected, and most X Prize Cup activities would be located at the airfield.

Under Alternative 2, the FAA would consider issuing a launch site operator license only for the operation of a launch site to support vertical launches. This is considered a feasible alternative because a significant number of launches are projected to be of vertical LVs.

Under the No Action Alternative, the FAA would not issue a launch site operator license to the NMSA. Subsequently, the need to support commercial launches and host the X Prize Cup would not be met by the State of New Mexico.

Resource areas were considered to provide a context for understanding and assessing the potential environmental effects of the Proposed Action, with attention focused on key issues. The resource areas considered included compatible land use; Section 4(f) lands and farmlands; noise; visual resources and light emissions; historical, architectural, archaeological, and cultural resources; air quality; water quality, wetlands, wild and scenic rivers, coastal resources, and floodplains; fish, wildlife, and plants; hazardous materials, pollution prevention, and solid waste; socioeconomics, environmental justice, and children's environmental health and safety risks; and energy supply and natural resources. Construction impacts and secondary (induced) impacts are also considered. Additional analyses considered in the appendices include geology and soils; mineral resources; air space; health and safety; and transportation.

FOR FURTHER INFORMATION CONTACT: Stacey M. Zee (AST–100), Office of Commercial Space Transportation, 800 Independence Avenue, SW., Room 331, Washington, DC 20591, telephone (202) 267–9305; E-mail *stacey.zee@faa.gov*.

Issued in Washington, DC on July 2, 2008.

Michael McElligott,

Manager, Space Systems Development Division.

[FR Doc. E8–15545 Filed 7–8–08; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

[Summary Notice No. PE–2008–25]

Petitions for Exemption; Summary of Petitions Received

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of petitions for exemption received.

SUMMARY: This notice contains a summary of certain petitions seeking relief from specified requirements of 14 CFR. The purpose of this notice is to improve the public's awareness of, and participation in, this aspect of FAA's regulatory activities. Neither publication of this notice nor the inclusion or omission of information in the summary is intended to affect the legal status of any petition or its final disposition.

DATES: Comments on petitions received must identify the petition docket number involved and must be received on or before July 21, 2008.

ADDRESSES: You may send comments identified by Docket Number FAA–2006–25466 using any of the following methods:

- *Government-wide Rulemaking Web Site:* Go to *http://www.regulations.gov* and follow the instructions for sending your comments electronically.
- *Mail:* Send comments to the Docket Management Facility; U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12–140, Washington, DC 20590.
- *Fax:* Fax comments to the Docket Management Facility at 202–493–2251.
- *Hand Delivery:* Bring comments to the Docket Management Facility in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- *Docket:* To read background documents or comments received, go to *http://www.regulations.gov* at any time or to the Docket Management Facility in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION: We will post all comments we receive, without change, to *http://www.regulations.gov*, including any personal information you provide. Using the search function of our docket Web Site, anyone can find and read the comments received into any of our dockets, including the name of the individual sending the comment (or signing the comment for an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477–78).

FOR FURTHER INFORMATION CONTACT: Tyneka Thomas (202) 267–7626 or Frances Shaver (202) 267–9681, Office of Rulemaking, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591.

This notice is published pursuant to 14 CFR 11.85.

Issued in Washington, DC, on July 2, 2008.

Pamela Hamilton-Powell,

Director, Office of Rulemaking.

Petitions for Exemption

Docket No.: FAA–2006–25466.
Petitioner: Southwest Airlines Co.
Section of 14 CFR Affected: §§ 121.391(a) and 121.393(b).
Description of Relief Sought: To clarify or amend Southwest Airlines, Co. (Southwest), current Exemption No. 9382, which allows Southwest to substitute a pilot for one required flight attendant crewmember during boarding at an intermediate stop and to reduce the number of required flight attendants onboard during the deplaning of passengers at an intermediate stop. The clarification or amendment Southwest seeks would broaden the exemption to include all stops from the time the aircraft door is opened upon arrival at the gate until the door is closed prior to the next flight operation. Southwest also requests that the certificate holder may substitute for the required flight attendants other persons qualified in the emergency evacuation procedures for that aircraft as required in § 121.417, for all stops, if these persons are identified to the passengers.

[FR Doc. E8–15481 Filed 7–8–08; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

First Tier Environmental Impact Statement: Jackson County, MO

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Notice of intent.

SUMMARY: The FHWA is issuing this notice to advise the public that a First Tier Environmental Impact Statement (EIS) will be prepared for proposed improvements to I–70 from the end of the last ramp termini east of the Missouri and Kansas state line to east of

Exhibit B-12. Newspapers and Dates of Publication of Notices for the Public Hearings

Newspaper	City/County	Date
Las Cruces Sun-News	Las Cruces, NM	July 3, 2008
Sierra County Sentinel	Sierra County, NM	July 4, 2008
The Herald	Truth or Consequences, NM	July 2, 2008
Alamogordo Daily News	Alamogordo, NM	July 7, 2008
Albuquerque Journal	Albuquerque, NM	July 3, 2008

Exhibit B-13. Notices of Availability of the Draft EIS and Public Hearings

www.lcsun-news.com

LAS CRUCES SUN-NEWS

PROOF OF PUBLICATION

Lou Hendren, being duly sworn, deposes and says that he is the Classified Manager of the Las Cruces Sun-News, a newspaper published daily in the county of Dona Ana, State of New Mexico; that the notice 40193 **is an exact duplicate of the notice that was published once a week/day in regular and entire issue of said newspaper and not in any supplement thereof for** 1 **consecutive week(s)/day(s), the first publication was in the issue dated** 7-3-08 **and the last publication was** 7-3-08.

Despondent further states this newspaper is duly qualified to publish legal notice or advertisements within the meaning of Sec. Chapter 167, Laws of 1937.

Signed

Classified Manager
Official Position

STATE OF NEW MEXICO
ss.
County of Dona Ana
Subscribed and sworn before me this 15th **day of** July 2008

Notary Public in and for

Dona Ana County, New Mexico

My Term Expires April 10, 2011

OFFICIAL SEAL
ROBERT F. SPRING
NOTARY PUBLIC - STATE OF NEW MEXICO
My commission expires: 4/10/2011

FEDERAL AVIATION ADMINISTRATION
NOTICE OF PUBLIC MEETING

In accordance with the National Environmental Policy Act, the Federal Aviation Administration (FAA) is announcing the availability of the Spaceport America Draft Environmental Impact Statement (EIS). The Draft EIS was prepared in response to an application for a launch site operator license from the New Mexico Spaceport Authority. Under the proposed action, the FAA would issue a launch site operator license to the New Mexico Spaceport Authority to develop and operate a commercial space launch site near Upham, New Mexico. An electronic version of the document is available on the FAA Office of Commercial Space Transportation website at: http://ast.faa.gov. Paper copies of the Draft EIS are available at local public libraries.

The FAA encourages all interested parties to provide comments concerning the scope and content of the Draft EIS by August 18, 2008. Comments should be as specific as possible and address the analysis of potential environmental impacts and the adequacy of the proposed action or merits of alternatives and the mitigation being considered. Reviewers should organize their participation so that it is meaningful and makes the agency aware of the viewer's interests and concerns using quotations and other specific references to the text of the Draft EIS and related documents. Matters that could have been raised with specificity during the comment period

www.lcsun-news.com

LAS CRUCES SUN-NEWS

on the Draft EIS may not be considered if they are raised for the first time later in the decision process. This commenting procedure is intended to ensure that substantive comments and concerns are made available to the FAA in a timely manner so that the FAA has an opportunity to address them.

The FAA will hold six public meetings to collect comments on the Draft EIS:

" August 5, 2008, 2:00 PM and 6:30 PM, Alamogordo City Hall (Commission Chambers), 1376 E. Ninth St., Alamogordo, NM (505-439-4205)

" August 6, 2008, 2:00 PM and 6:30 PM, Truth or Consequences Civic Center, 400 West Fourth St., Truth or Consequences, NM (575-894-4400)

" August 7, 2008, 2:00 PM and 6:30 PM, Doña Ana County Government Center, 845 North Motel Blvd, Las Cruces, NM (575-647-7200)

At the meetings, the FAA will describe the proposed action and the environmental review process, followed by a public statement period in which members of the public may provide up to a three-minute statement. Comments or questions also can be mailed to Ms. Stacey M. Zee, FAA Environmental Specialist, Spaceport America EIS c/o ICF International, 9300 Lee Highway, Fairfax, VA 22031. Comments can also be sent by e-mail to SpaceportAmericaEIS@icfi.com or by fax to (703) 934-3951.

STATE OF NEW MEXICO, ss.
County of Sierra

Myrna Kohs, being first duly sworn, on her oath says: That she is the editor of the Sierra County SENTINEL, a newspaper published in the Town of Truth or Consequences, in the County of Sierra and State of New Mexico, and that said newspaper is now, and was at all times herein mentioned, a newspaper of general circulation.

That the advertisement, a copy of which is hereto attached, was published in said herein before mentioned newspaper once each and every week for One (1) consecutive weeks, the first publication thereof having been made on the 4th day of July, A.D. 2008. and the last publication thereof having been made on the 4th day of July, A.D. 2008.

That said newspaper was regularly printed, published and issued with said notice therein upon the following dates, to-wit:
July 4, 2008.

Myrna Kohs

Subcribed and sworn to before me this 4 of July, 2008.

Mary Jane McKay
Notary Public
My commission expires AUGUST 15, 2011

LEGAL NOTICE

FEDERAL AVIATION ADMINISTRATION
NOTICE OF PUBLIC MEETING

In accordance with the National Environmental Policy Act, the Federal Aviation Administration (FAA) is announcing the availability of the Spaceport America Draft Environmental Impact Statement (EIS). The Draft EIS was prepared in response to an application for a launch site operator license from the New Mexico Spaceport Authority. Under the proposed action, the FAA would issue a launch site operator license to the New Mexico Spaceport Authority to develop and operate a commercial space launch site near Upham, New Mexico. An electronic version of the document is available on the FAA Office of Commercial Space Transportation website at: http://ast.faa.gov. Paper copies of the Draft EIS are available at local public libraries.

The FAA encourages all interested parties to provide comments concerning the scope and content of the Draft EIS by August 18, 2008. Comments should be as specific as possible and address the analysis of potential environmental impacts and the adequacy of the proposed action or merits of alternatives and the mitigation being considered. Reviewers should organize their participation so that it is meaningful and makes the agency aware of the viewer's interests and concerns using quotations and other specific references to the text of the Draft EIS and related documents. Matters that could have been raised with specificity during the comment period on the Draft EIS may not be considered if they are raised for the first time later in the decision process. This commenting procedure is intended to ensure that substantive comments and concerns are made available to the FAA in a timely manner so that the FAA has an opportunity to address them.

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Pub: July 4, 2008

PROOF OF PUBLICATION

The following legal notice has been published in THE HERALD, a weekly newspaper published at Truth or Consequences, Sierra County, State of New Mexico.

Sierra Tech

3 X's Display Ads:

"Sierra Spaceport not..."

in said newspaper on July 2, 2008, to and including

20 ....., inserting same in the issue of

SIGNED: Bonnie J. Gericke

TITLE: Administrative Assist.

Subscribed and sworn to before me this 2nd day of July, 20 08

Maureen Tobey
Notary Public

My Commission expires Feb. 12, 20 10

FEDERAL AVIATION ADMINISTRATION
NOTICE OF PUBLIC MEETING

In accordance with the National Environmental Policy Act, the Federal Aviation Administration (FAA) is announcing the availability of the Spaceport America Draft Environmental Impact Statement (EIS). The Draft EIS was prepared in response to an application for a launch site operator license from the New Mexico Spaceport Authority. Under the proposed action, the FAA would issue a launch site operator license to the New Mexico Spaceport Authority to develop and operate a commercial space launch site near Upham, New Mexico. An electronic version of the document is available on the FAA Office of Commercial Space Transportation website at: http://ast.faa.gov. Paper copies of the Draft EIS are available at local public libraries.

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AFFIDAVIT OF PUBLICATION

ALAMOGORDO,
STATE OF NEW MEXICO
COUNTY OF OTERO. **SS.**

I, MICHAEL BELL, being duly sworn, on my oath say that I am the Publisher of the Alamogordo Daily News, a Newspaper of daily circulation, published and printed in the English language at the City of Alamogordo, Otero County, State of New Mexico. That the Alamogordo Daily News has been regularly published and issued for more than nine months prior to the date of the first publication hereinafter mentioned.

That the attached notice was published 1 time in 1 issue of said newspaper and not in any supplement thereof, the first publication being on July 3rd, 2008.That said notice was published in accordance with the laws of the State of New Mexico.

Publisher

Subscribed in my presence and sworn before me this the 7th day of July 2008.

Notary Public

My commission expires 3-31-2010

Legal Number: 1185

OFFICIAL SEAL
Nanette Gardner
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 3-31-2010

LEGAL # 1185
Published July 3, 2008

FEDERAL AVIATION ADMINISTRATION NOTICE OF PUBLIC MEETING

In accordance with the National Environmental Policy Act, the Federal Aviation Administration (FAA) is announcing the availability of the Spaceport America Draft Environmental Impact Statement (EIS). The Draft EIS was prepared in response to an application for a launch site operator license from the New Mexico Spaceport Authority. Under the proposed action, the FAA would issue a launch site operator license to the New Mexico Spaceport Authority to develop and operate a commercial space launch site near Upham, New Mexico. An electronic version of the document is available on the FAA Office of Commercial Space Transportation website at: http://ast.faa.gov. Paper copies of the Draft EIS are available at local public libraries.

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FEDERAL AVIATION ADMINISTRATION
NOTICE OF PUBLIC MEETING

In accordance with the National Environmental Policy Act, the Federal Aviation Administration (FAA) is announcing the availability of the Spaceport America Draft Environmental Impact Statement (EIS). The Draft EIS was prepared in response to an application for a launch site operator license from the New Mexico Spaceport Authority. Under the proposed action, the FAA would issue a launch site operator license to the New Mexico Spaceport Authority to develop and operate a commercial space launch site near Upham, New Mexico. An electronic version of the document is available on the FAA Office of Commercial Space Transportation website at: http://ast.faa.gov. Paper copies of the Draft EIS are available at local public libraries.

The FAA encourages all interested parties to provide comments concerning the scope and content of the Draft EIS by August 18, 2008. Comments should be as specific as possible and address the analysis of potential environmental impacts and the adequacy of the proposed action or merits of alternatives and the mitigation being considered. Reviewers should organize their participation so that it is meaningful and makes the agency aware of the viewer's interests and concerns using quotations and other specific references to the text of the Draft EIS and related documents. Matters that could have been raised with specificity during the comment period on the Draft EIS may not be considered if they are raised for the first time later in the decision process. This commenting procedure is intended to ensure that substantive comments and concerns are made available to the FAA in a timely manner so that the FAA has an opportunity to address them.

The FAA will hold six public meetings to collect comments on the Draft EIS:

- August 5, 2008, 2:00 PM and 6:30 PM, Alamogordo City Hall (Commission Chambers), 1376 E. Ninth St., Alamogordo, NM (505-439-4205)
- August 6, 2008, 2:00 PM and 6:30 PM, Truth or Consequences Civic Center, 400 West Fourth St., TorC, NM (575-894-4400)
- August 7, 2008, 2:00 PM and 6:30 PM, Dona Ana County Government Center, 845 North Motel Blvd, Las Cruces, NM (575-647-7200)

At the meetings, the FAA will describe the proposed action and the environmental review process, followed by a public statement period in which members of the public may provide up to a three-minute statement. Comments or questions also can be mailed to Ms. Stacey M. Zee, FAA Environmental Specialist, Spaceport America EIS c/o ICF International, 9300 Lee Highway, Fairfax, VA 22031. Comments can also be sent by e-mail to SpaceportAmericaEIS@icfi.com or by fax to (703) 934-3951.

Journal: July 3, 2008

STATE OF NEW MEXICO
County of Bernalillo SS

Bill Tafoya, being duly sworn, declares and says that he is Classified Advertising Manager of **The Albuquerque Journal**, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made of assessed as court cost; that the notice, copy of which is hereto attached, was published in said paper in the regular daily edition, for 1 times, the first publication being on the 3rd day of July 2008 and the subsequent consecutive publications on _____, 20___.

Sworn and subscribed to before me, a Notary Public, in and for the County of Bernalillo and State of New Mexico this 3rd day of July of 2008

PRICE $55.66

Statement to come at end of month.

ACCOUNT NUMBER C83380

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Elyn Sloane
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 4-4-10

CLA-22-A (R-1/93)

APPENDIX C
ALTERNATIVE SITE LOCATIONS CONSIDERED

Considered but dismissed from further analysis were alternate sites for the spaceport outside New Mexico or at other locations within New Mexico but outside the area identified for Spaceport America in the Proposed Action in this EIS. This appendix describes those sites in detail. Exhibit C-1 shows the considerations and criteria that were used in this site evaluation process. The application of each of these considerations and criteria to the potential spaceport sites is described in this appendix.

Exhibit C-1. Site Selection Criteria

Consideration	Criteria
Trajectory Pathway	• Located in southern tier of States
Flight Safety	• Low population density • Availability of suitable land for safety buffer zone
New Mexico Economic Development Goals	• Located in New Mexico
Operational Considerations	• Weather • Airspace availability • Non-corrosive environment
Technical Considerations	• Availability of power • Transportation access • Suitability for construction of facilities
Restricted Airspace Needs	• Large volume of airspace that does not normally support heavy aircraft traffic • Bulk of airspace located east of the launch point
State Land Ownership	• Necessary amount of contiguous State-owned land to accommodate proposed Spaceport America
White Sands Missile Range (WSMR)	• Located as far west of WSMR (within call-up zone) as possible • Located to have minimal effects on critical flight operations and resulting debris dispersion impacts from WSMR launch complexes

C.1 Sites Outside of New Mexico

The first step in this process was a study by New Mexico State University (NMSU) (1995), which initially examined candidate spaceport locations in southern Nevada, Arizona, New Mexico, western Texas, and northern Mexico. Ten locations were selected for further investigation (Exhibit C-2). These sites were in the vicinities of:

- Las Vegas, Nevada
- Kingman, Arizona
- Winslow, Arizona
- Greenlee County, Arizona
- Northern Chihuahua, Mexico
- White Sands Missile Range, New Mexico
- Roswell, New Mexico
- Tucumcari, New Mexico
- Carlsbad, New Mexico
- Van Horn, Texas

Exhibit C-2. Candidate Spaceport America Locations Considered in the Southwest U.S. and Mexico



WSMR emerged as the preferred site in the early stages of the original NMSU study even though a number of other sites were considered. A variety of launch vehicle (LV) issues were added to the NMSU study.

Sites in the southwest but outside of New Mexico were not considered viable candidates for a facility to be developed by the State of New Mexico for economic development purposes. Also, sites outside of New Mexico would not satisfy the intent of the State and Congressional leadership supporting the potential spaceport concept and were not carried forward for further analysis.

C.2 New Mexico Sites

Four New Mexico sites, Tucumcari, Roswell, WSMR, and Carlsbad, were carried forward for consideration. The primary issue in considering the New Mexico sites was flight safety. Other considerations were payload lift capacity, which generally is improved by closeness to the equator and higher ground elevation; and operational considerations, which are influenced by a wide variety of factors including weather, airspace availability, and corrosiveness of the environment. For flight safety considerations, launch operations need a large volume of airspace that does not normally support heavy aircraft traffic. Based on these considerations, the site location west of WSMR, which uses the broad uninhabited land surface of WSMR and the airspace above it, was considered to be the most viable of the New Mexico sites.

Within this area, the most suitable sites were found to be east-northeast of Engle and in the area north of Point of Rocks and southwest of Prisor Hill. Determination of suitability was based mainly on technical criteria, which included availability of power, transportation, low population density, near but not on WSMR, location to the west of WSMR, suitability for construction of facilities, airspace control, and several other issues. At that time, considerations for a long runway did not exist for the vehicles that were under consideration, so topography played a relatively less important role in the selection process. It should be noted that the specific sites examined in this analysis were not located within large blocks of State-owned lands because at that time a much larger spaceport area was envisioned that contained very large buffer areas around facilities, requiring land managed by various agencies.

Sites located east-northeast of Engle (north of the current proposed site) were eliminated from consideration “due to non-availability of sufficient public land.” There is a large block of State land northeast of Engle, bordered on the west by the private land of the Pedro Armendaris grant. However, the San Andres mountain range is 5 to 7 miles east of the potential runway location. This would potentially be a hazard to aircraft and horizontal LVs, especially suborbital vehicles returning for unpowered landings. This area also is within the safety fan of an important WSMR flight corridor for launches from Fort Wingate, NM.

C.3 Sites Near WSMR

Environmental investigations were conducted within a 387-section study area near WSMR in 1997. It was determined that a spaceport site in this region offered advantages in terms of the technical attributes, including low population in the immediate downrange area and location west of WSMR. However, it was determined that pursuing a land exchange with BLM was unlikely to be successful in a desired timeframe. Correspondence (Sekavec, 1997) indicated that public lands surrounding the proposed site were not available for the proposed use of a commercial space launch site. This correspondence states:

> "… the BLM has identified that all 189,209 acres proposed for use as the SRS [Southwest Regional Spaceport] will be retained under Federal Ownership as public lands and managed as also directed by the Federal Land Policy and Management Act of 1976 (FLPMA) under the principles of multiple use and sustained yield with emphasis on protecting the quality of scientific, scenic, historical, environmental, and ecological values. Currently, all 189,209 acres of public lands managed by the BLM are not available for use as the proposed SRS."

Since existing BLM lands were not available for spaceport use, and the possibility of a land exchange with BLM was not likely and could not occur in the time frame necessary for a viable project, a critical component of the State's position with regard to the spaceport, i.e., that the spaceport be located on State-owned land, was in jeopardy. The only viable solution was to identify an existing parcel of State-owned land large enough for the proposed Project.

In July 1998, Lockheed-Martin Company (LMC) issued a Request for Qualifications (RFQ) for sites within the U.S. to serve as the launch and recovery site for their VentureStar® single-stage-to-orbit launch vehicle that was then under development. Information contained in this RFQ was used to determine that a 26-section block of land would be adequate for its spaceport. New Mexico prepared and submitted a Statement of Qualifications to LMC in response to this solicitation. As part of the process, the State revisited its site selection process with the additional consideration of the unique LMC VentureStar® launch site criteria. Thirteen sites, all but one of which had been examined previously, were once again examined in detail. An additional site in the southeast corner of WSMR near Orogrande was considered. This site was added because it was close enough to El Paso, Texas, to provide access to its large labor market. WSMR subsequently asked the State to remove this site from the potential sites list due to Department of Defense operations conflict concerns. The specific site that was proposed to LMC, in addition to the site near Orogrande, was essentially the same site that is currently proposed in this EIS, taking into consideration differences in the infrastructure of the LMC program compared with current considerations.

C.3.1 Sites West of WSMR and WSMR MOA Area

A critical criterion of site selection for Spaceport America is that it must provide access to WSMR airspace, infrastructure, and equipment (e.g., radar). WSMR has two basic types of restricted airspace: areas of ground to infinity airspace under their direct control and areas restricted part time but available for use by notification to the FAA. All sites that had been considered in site selection screenings in the WSMR vicinity are in one of these two types of restricted airspace.

WSMR expressed concern about the prospect of having high-value assets associated with a spaceport located within their call-up zones. Risk of damage to such assets by WSMR missions could potentially affect WSMR's ability to conduct critical national security flight test and evaluation missions. WSMR's general requests were that spaceport facilities should be located as far west as possible and that the facilities should be located to have minimal effects on critical flight operations and resulting debris dispersion impacts from WSMR launch complexes, primarily the main launch complex area to the east of the Main Post area. Because the western call-up zone boundary is approximately coincident with available WSMR airspace, these requests have the effect of requiring the spaceport to be located as far west within the call-up zone as possible within a narrow north-south band.

A memorandum of agreement (MOA) was signed between WSMR and the State in 2002. As a condition of the MOA, the State agreed to locate the spaceport facilities in a specific part of the Abres 4A Extension Area (Exhibit C-3). Putting the facilities in the specified area would minimize the potential for damage or risk to life by impact of vehicle debris from WSMR launches and would minimize possible impacts on WSMR flight corridors that are used for testing activities for national security. As a result of the MOA, all potential sites west of WSMR on New Mexico State Trust Lands, but not within the area agreed to in the MOA with WSMR, were not carried forward for further analysis. Also shown in Exhibit C-3 is the Visual Resources Management (VRM) Class II viewshed for Federal lands that was established in 2004 by the El Camino Real de Tierra Adentro National Historic Trail Comprehensive Management Plan (NPS and BLM, 2004). The overlap of the WSMR MOA area of 2002 and the Camino Real viewshed of 2004 is coincidental, as the viewshed had not been established as of 2002.

C.3.2 Site Safety Criteria Considered

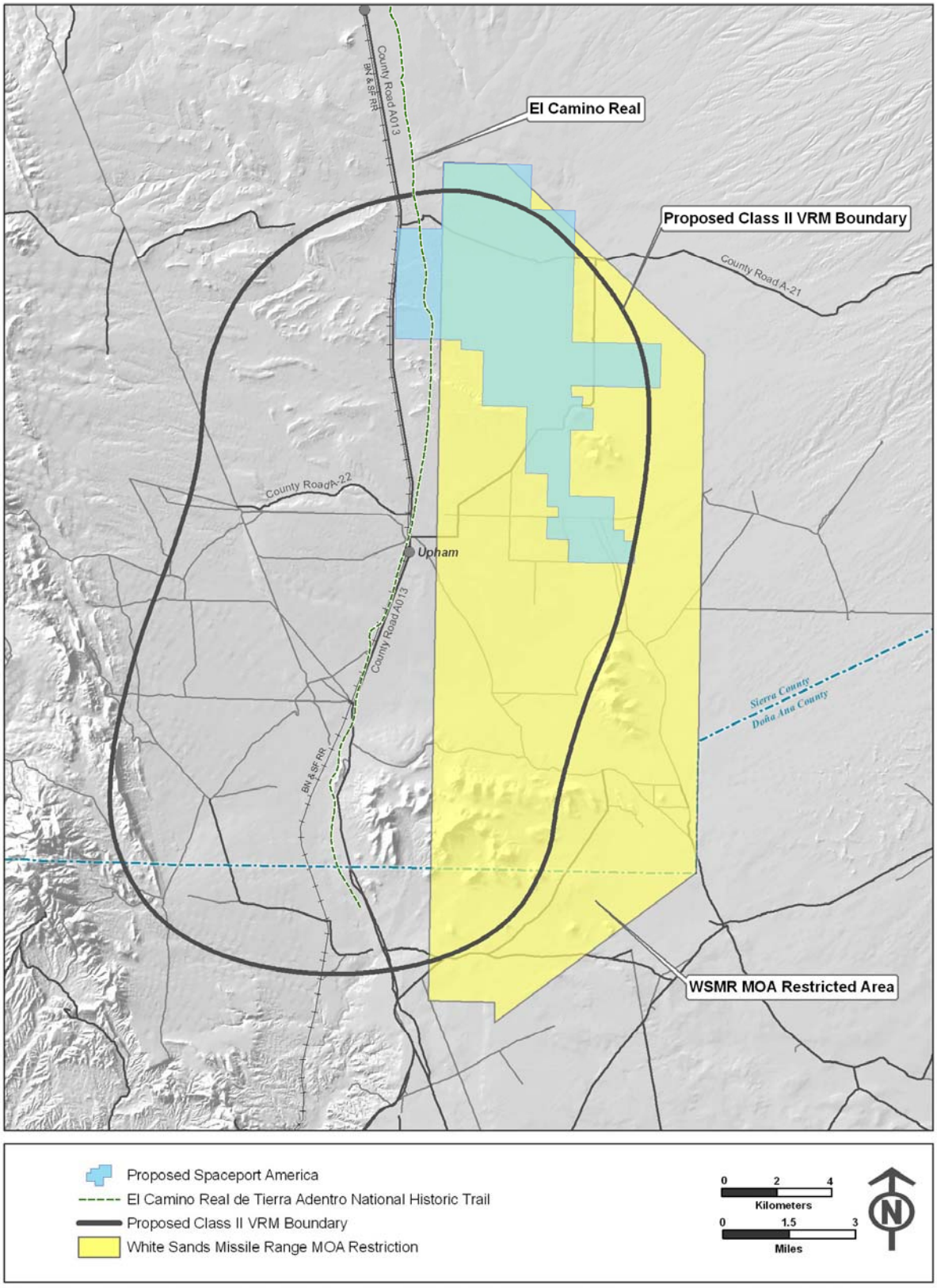
Safety considerations were of primary concern throughout the site selection process, and safety remains the most important criterion to be met by any potential commercial spaceport location. Operational safety analyses included: the length and desired orientation of the runway; potential approach and departure vector hazards; availability of protected safety zones at the ends of the proposed runway; restricted airspace in the vicinity; topography and soil conditions that would allow runway construction in the desired orientation; access to infrastructure to support runway operations; safe separation distances and orientation between horizontal and vertical launch areas; and available land for launch and recovery operations for both types of technology.

In the 1990s, the State funded WSMR Flight Safety to conduct qualitative analysis to assist with site down-selection (WSMR, 1998). More than 30 sites in southern New Mexico were compared from the perspective of least population within a corridor defined by a catastrophic hazard footprint. The specific failure scenario was a catastrophic on-board explosion from unspent propellants, followed by a vehicle breakup. The conclusion of the study was that the general Upham area was shown to be the optimum location for a launch site with respect to safety.

As specific sites within this general Upham area were evaluated, runway safety concerns eliminated several sites. Potential sites located northeast of Engle were eliminated from consideration due to the location of the San Andres Mountains only 5 to 7 miles east, and because this area is located outside the boundary of the area covered by the MOA with WSMR. Particular sites south of Prisor Hill ran into similar runway safety concerns with features such as Point of Rocks and Prisor Hill interfering with approach and departure paths, as well as limited orientation options. A site southwest of the current proposed site was eliminated because acquisition of land for buffer areas and safety zones could not be assured. A runway location west of Upham was eliminated due to multiple runway safety concerns, including orientation, topography, safety zones, and approach and departure vectors.

The current proposed site for Spaceport America was identified through safety analyses, in addition to the other considerations presented in this section. The current runway orientation and layout for Spaceport America was determined through wind analysis, in accordance with the FAA guidelines, using wind data collected over a 10-year period at the Truth or Consequences airport

Exhibit C-3. Area Included within WSMR MOA Restrictions and the VRM Class II Viewshed for El Camino Real de Tierra Adentro NHT



and from data collected from a weather observation station active at the Bar Cross Ranch since 2005. The runway is positioned on the site to maximize separation of the vertical and horizontal launch areas, as well as to protect the critical surfaces and safety areas associated with the runway.

C.4 Sites on State Trust Lands within the WSMR MOA Area

Between 2001 and 2003, New Mexico considered a number of small, entrepreneurial launch companies as potential tenants for its spaceport. In analyzing the specifications of these companies, it was determined that they too could be satisfied if the area of the spaceport was reduced to approximately 26 sections of New Mexico State Trust Land within the larger 387-section Project area identified earlier. This was consistent with the requirements for the VentureStar® program. This would allow the State to comply with the WSMR imposed restrictions and avoid the need for a land exchange with the BLM, a process for which timely success was unlikely. A contiguous block of New Mexico State Trust Land of the desired size was identified within the earlier identified 387-section Project area.

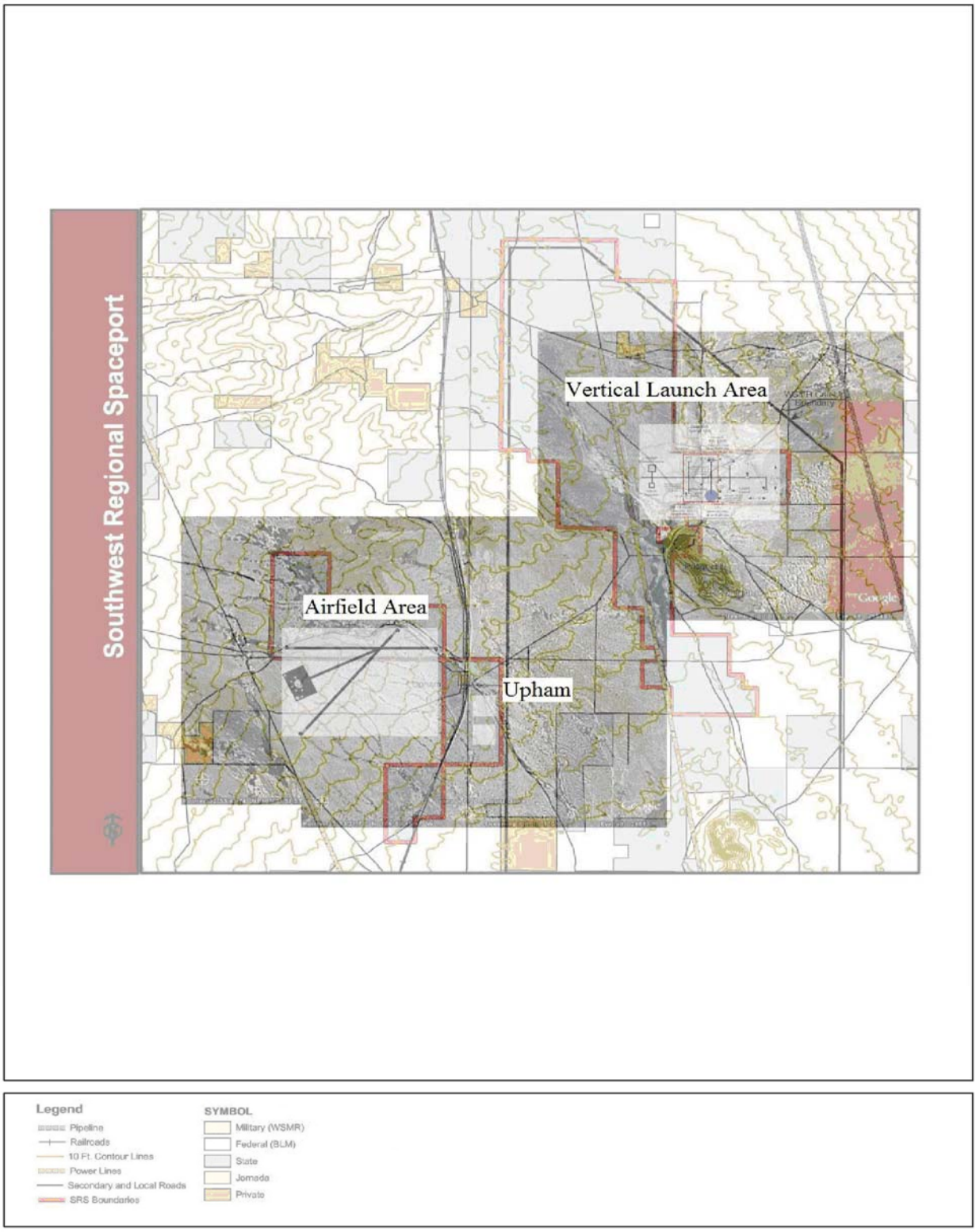
The selection of the contiguous block of State land for Spaceport America was also influenced by technical considerations. Potential sites in the southern part of the WSMR MOA area were less favorable or unsuitable for the following reasons:

- The region east of the El Camino Real viewshed but within the WSMR MOA area is just north of Flat Lake, the lowest point in the Jornada del Muerto basin. The Jornada Draw drains into this region and flat areas are prone to flooding and the formation of temporary shallow lakes in the playas.
- The flat land from the Upham Hills north to Prisor Hill is also dominated by the Jornada Draw, and floods in heavy rains.
- The area generally east of Upham is very flat and as a result has playas prone to flooding.

Engineering and topographic analyses of the State Trust Lands around the old Upham railroad junction site and west of County Road A013 found that these parcels were incompatible with facility needs, particularly for a horizontal launch support facility. This conceptual site layout is shown in Exhibit C-4. Topographic analysis of several sections of BLM-administered land to the south of this State land for the airfield made the BLM land look somewhat promising until discussions with the local BLM office indicated that the exchange process would be expected to take several years. In addition, BLM correspondence (Sekavec, 1997) indicated that public lands surrounding the proposed site were not available for the proposed use of a commercial space launch site.

Since a land exchange with BLM was not likely, the State concluded that only development on State-owned land would assure that the Project would move ahead at a pace necessary to allow the State's corporate partners to meet their individual pre-requisites in a timely way. This was also consistent with Spaceport America program objectives of having facilities on contiguous State Trust Land parcels for cost and control efficiency, security and convenient access, meeting WSMR airspace and call-up zone restrictions, and meeting commercial partner development

Exhibit C-4. Rejected Spaceport America Conceptual Facilities Layout with Airfield on State Land West of Upham



timelines. As a result, State land parcels west of Upham railroad junction, and both BLM land and State land to the south of Prisor Hill, were not carried forward for further alternative site analysis.

The current proposed location was identified, because the northern part of the WSMR MOA area contained a large block of State land and did not have the technical and environmental drawbacks of other potential spaceport sites in this area. This revised spaceport Project area is the one analyzed in this EIS.

This proposed spaceport Project area encompassed some 16,920 acres of State Trust land, all in Sierra County, which included State lands in and around Upham as well as farther north towards Aleman Ranch, but excluded any BLM lands surrounding and interspersed between these State Trust Land parcels.

The proposal noted that the State anticipated an approved-use permit from BLM for non-exclusive use of BLM-administered lands within safety buffer zones if necessary, but did not contemplate a State/BLM land exchange because of the previously described difficulties with this option. This reflected the State's understanding that any large land exchange between the State Land Office and BLM would entail extensive negotiations between the agencies and subsequent modification of the BLM's existing White Sands Resource Area Resource Management Plan and preparation of NEPA documents. In addition, previous BLM correspondence indicated that public lands surrounding the proposed site were not available for the proposed use of a commercial space launch site. All of these issues reaffirmed the State's determination that a land exchange was neither feasible nor responsive to the timeline required for the spaceport.

The State was ultimately successful in 2004 with its proposal to provide a host site for annual X Prize Cup events, and a number of additional potential users of a commercial spaceport in the State have come forward since then to negotiate with the State on terms and conditions of occupancy and use of such a commercial spaceport. These companies include Virgin Galactic, UP Aerospace, StarChaser, and the Rocket Racing League. Each potential user has its own unique facility pre-requisites, which have been factored into the location and facility planning process for Spaceport America. This resulted in a general conceptual facility layout with a vertical launch facility in the easternmost part of the State Trust Land Project area; this eastern placement was necessary so that vertical launches would take place as close to WSMR as possible for safety reasons. The horizontal launch support facility would need to be located a reasonable distance away from the vertical launch area for safety and launch azimuth reasons.

It was determined that the WSMR restrictions and economic development timeline could be met with facilities in this conceptual layout configuration. Previously identified general technical needs for variations of vertical and horizontal vehicles to be launched from the spaceport by these prospective client users were found to be compatible with the smaller Project area proposed for the X Prize Cup, and dormant discussions with the FAA about renewing the previously discontinued EIS process were revived in the summer of 2005.

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Sekavec, G. B. 1997. Letter from Glenn B Sekavec (U. S. Department of the Interior) to Nikos Himaras (U.S. Federal Aviation Administration, Office of the Associate Administrator for Commercial space Transportation), August 27.

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APPENDIX D
GEOLOGY AND SOILS

D.1 Affected Environment

D.1.1 Definition and Description

Geology and soils are those Earth resources that may be described in terms of landforms, geology, and soil conditions. The makeup of geology and soils within a given physiographic region influences the occurrence of vegetation types, the presence of mineral or energy resources, the presence of ground water resources, and the potential for seismicity and associated risks such as earthquakes and landslides.

D.1.1.1 Geology

Geology is the study of the composition and configuration of the Earth's surface and subsurface features. The general shape and arrangement of the land surface, including its height and position of its natural and man-made features, is referred to as topography. The topography of the land surface affects the general direction of surface water and ground water flow. Groundwater is stored and transmitted underground in aquifers that supply lakes and rivers and is often used for human purposes, such as drinking water and irrigation for crops.

D.1.1.2 Soils

Soil is defined as the surface of the Earth, composed of minerals and fine rock material disintegrated by geological processes, and humus, which is the organic remains of decomposed vegetation. Soil and sediments are typically described in terms of their composition, slope, and physical characteristics. Differences among soil types potentially affect their ability to support or sustain agriculture, filtration, and natural detoxification processes.

The three principle types of soils are clay, sand, and loam. Factors determining the nature of soils are vegetation type, climate, parent rock material, elevation, and the geological age of the developing soil.

D.1.2 Regulatory Setting

D.1.2.1 Geology

Outside of oil, gas, and mineral exploration, no specific regulatory standards pertain to geology other than best management practices (BMPs) and building codes that must be adhered to within seismic zones.

D.1.2.2 Soils

The USDA has designated specific soils as prime and unique farmlands, but the State has no additional regulations governing soils. None of these soils exist in the proposed Spaceport America site (see Section 3.2 for discussion). Impacts on soils from water runoff and hazardous waste are discussed in Sections D.2 and 4.9, respectively.

D.1.3 Existing Conditions

D.1.3.1 Geology

The proposed Spaceport America site is located in the central part of the Jornada del Muerto Basin, which is a structurally complex region of the Rio Grande rift. The rift lies within the larger physiographic zone known as the Basin and Range Province, which includes fault block

mountains and plateaus; volcanoes and lava flows; and broad, flat alluvial basins. The Rio Grande rift is characterized by a series of north-south parallel faults that extends from southern Colorado to Texas that formed during the Laramide orogeny approximately 75 to 43 million years ago (Seager, 2004).

The Jornada del Muerto Basin is structurally bounded on the west by the east-tilted Caballo Mountains and on the east by the west-tilted San Andres Mountains. The Basin is a nearly level detrital valley plain 10 to 20 miles in width extending from Socorro to Las Cruces, New Mexico. The sedimentary rocks exposed in the mountain slopes on either side of the basin dip toward the axis of the basin, forming the Jornada del Muerto syncline (Harley, 1934).

The north-northwest-trending Jornada Draw Fault extends from the Engle area south-southeastward across the southern Jornada del Muerto Basin to south of Point of Rocks hills, a distance of nearly 40 miles (Seager and Mack, 1995). The fault has displaced the hinge area of the Jornada del Muerto syncline approximately midway between the Caballo and San Andres Mountains.

Because it crosses the broad, nearly featureless plains of the Jornada del Muerto Basin, the physiographic expression of the Jornada Draw Fault is subtle since the position of the fault is obscured by the basin-fill alluvium. However, the course of the fault is clearly marked by the Jornada Draw and by a series of eight playa lakes that formed by subsidence along the fault. Although the physiographic expression of the Jornada Draw fault is subtle, truncation of bedrock units by the fault is not, as seen on a geologic map (Exhibit D-1).

Bedrock beneath the Jornada del Muerto Basin ranges from Permian (oldest) to Pleistocene (youngest) in age. A summary of the geologic units underlying the Central Jornada del Muerto Basin is presented in Exhibit D-2.

At the proposed Spaceport America site, all three units (conglomerate, sandstone, and mudstone) of the Love Ranch Formation are derived from Permian-age and Cretaceous-age rocks of the Caballo and San Andres Mountains. The Love Ranch Formation crops out along the Jornada and Aleman Draws. In the subsurface, the Love Ranch Formation extends southwestward from the Jornada Draw Fault Zone, and to the north of Aleman (Exhibit D-1). Generally, there is an upward fining sequence, with red mudstone dominant near the top of the formation, and conglomerates dominant at the bottom (Kottlowski et al., 1956).

North and East of Prisor Hill, beneath the Pleistocene-age alluvium, is the Palm Park Formation, which consists of a varied lithology of mudstone, siltstone, sandstone, poorly-sorted conglomerate with boulders up to 10 feet in diameter (Seager and Hawley, 1973), and lenticular fresh limestone and associated travertine deposits.

A lithologic boring log from an oil-and-gas test well drilled about four miles southeast of the proposed Spaceport America site indicates that the combined thickness of the Love Ranch and Palm Park Formations is about 4,650 feet in the vicinity of the proposed Spaceport America site (Shomaker, 2006).

Exhibit D-1. Geologic Bedrock Map of the Proposed Spaceport America Site and Vicinity

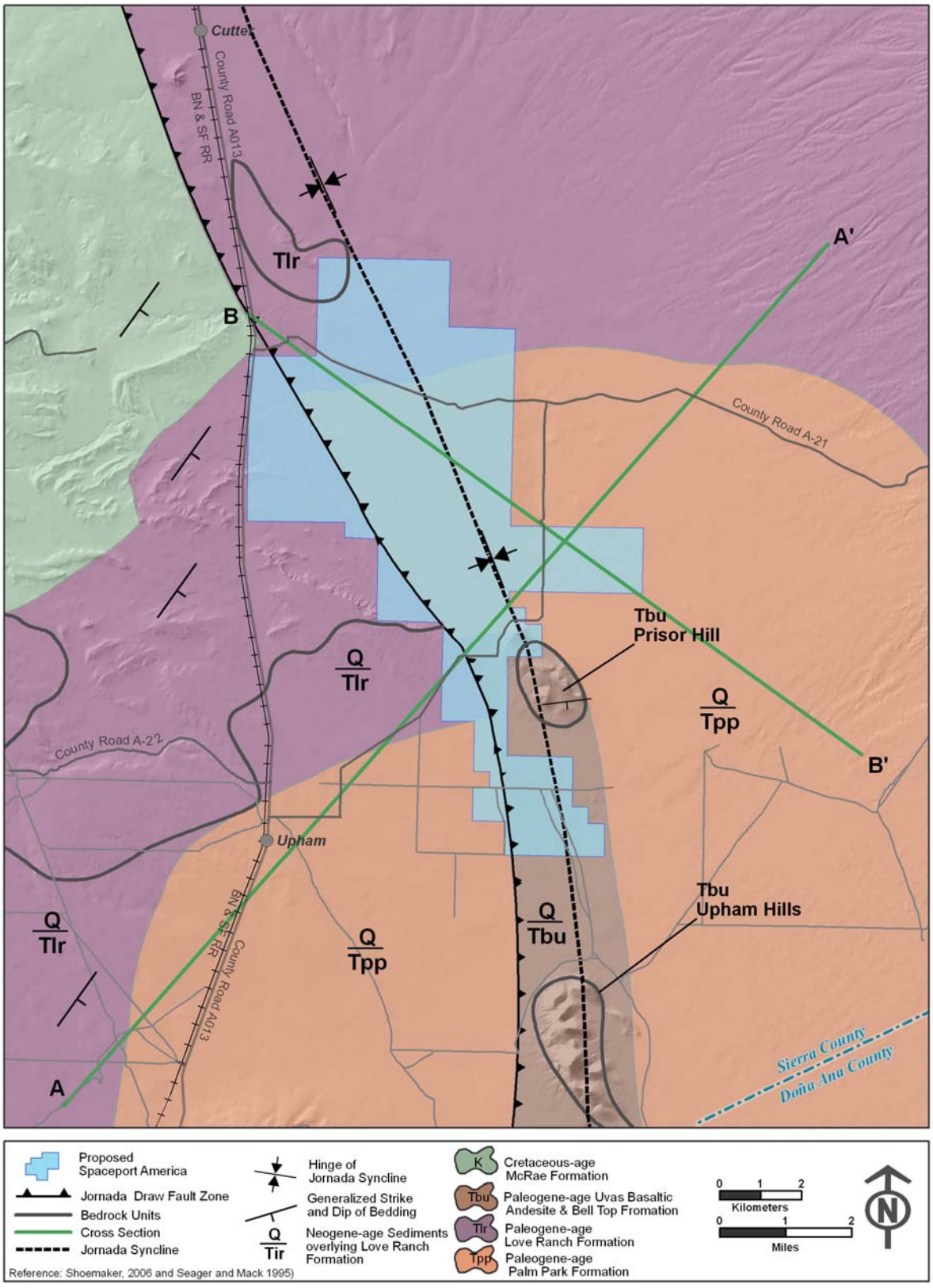


Exhibit D-2. Summary of Geologic Units Underlying the Central Jornada del Muerto Basin.

Geologic Time Period/Epoch	Age (million yrs)	Formation/ Unit Name	Description
Pleistocene/ Neogene	0 to 23	Younger Alluvium	Unconsolidated sand, gravel, sandstone, conglomerate.
		Camp Rice Formation	
Tertiary/ Paleogene	23 to 65	Bell Top Formation	Volcanic ash and ash-rich sandstone.
		Palm Park Formation	Conglomerate, conglomeratic sand-stone, sandstone, freshwater limestone, ash, siltstone and mudstone.
		Love Ranch Formation	Conglomerate, sandstone, and mudstone
Cretaceous	65 to 145	Mesaverde Group	Interbedded conglomerate, sandstone, siltstone, and shale units.
		Dakota Sandstone	Medium-grained sandstone with thin beds of siltstone and shale.
Unconformity (either no deposition occurred between 248 and 145 million/yrs ago or erosion removed the soil and rocks deposited during this time period).			
Permian	248 to 299	San Andres Limestone	Limestone with gypsum and sand-stone.
		Yeso Formation	Sandstone with gypsum beds.
		Abo Formation	Mudstone

Source: Adapted from Shomaker (2006).

The Neogene-age alluvium size and composition significantly varies by location, but in general the Camp Rice Formation consists of volcanic conglomerates near Prisor Hill, and limestone and sandstone pebble or cobble gravel, and gravelly sand when derived from the San Andres and Caballo Mountains. Across the proposed Spaceport America site, a thin veneer (at least 10 feet thick) of gravel, sand, and silt buries the Camp Rice Formation (Shomaker, 2006; Seager, 2002).

Exhibits D-3 and D-4 depict southwest-to-northeast and northwest-to-southeast geologic cross sections, respectively, across the Jornada del Muerto Basin.

D.1.3.2 Soils

A review of the Soil Survey of the Sierra County Area, New Mexico (Neher, 1984) indicates that the proposed Spaceport America site is underlain by soils belonging to the Doña Ana-Stellar-Wink soil complex, which is composed of about 41 percent Doña Ana soils, 17 percent Stellar soils, and about 15 percent Wink soils. The remaining 27 percent consists of components of minor extent.

Exhibit D-3. Geologic Cross-Section A – A'. Southwest to Northeast

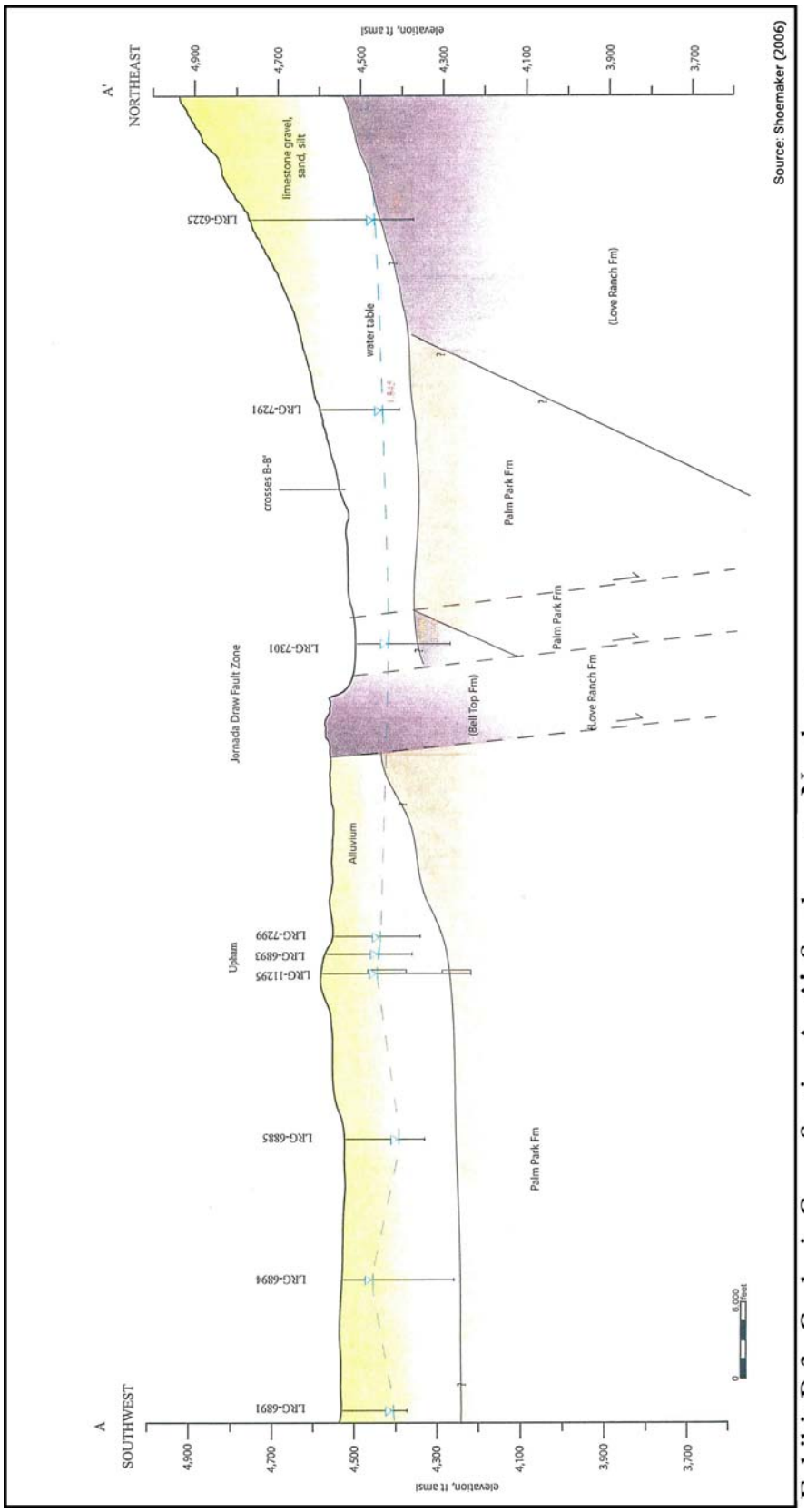
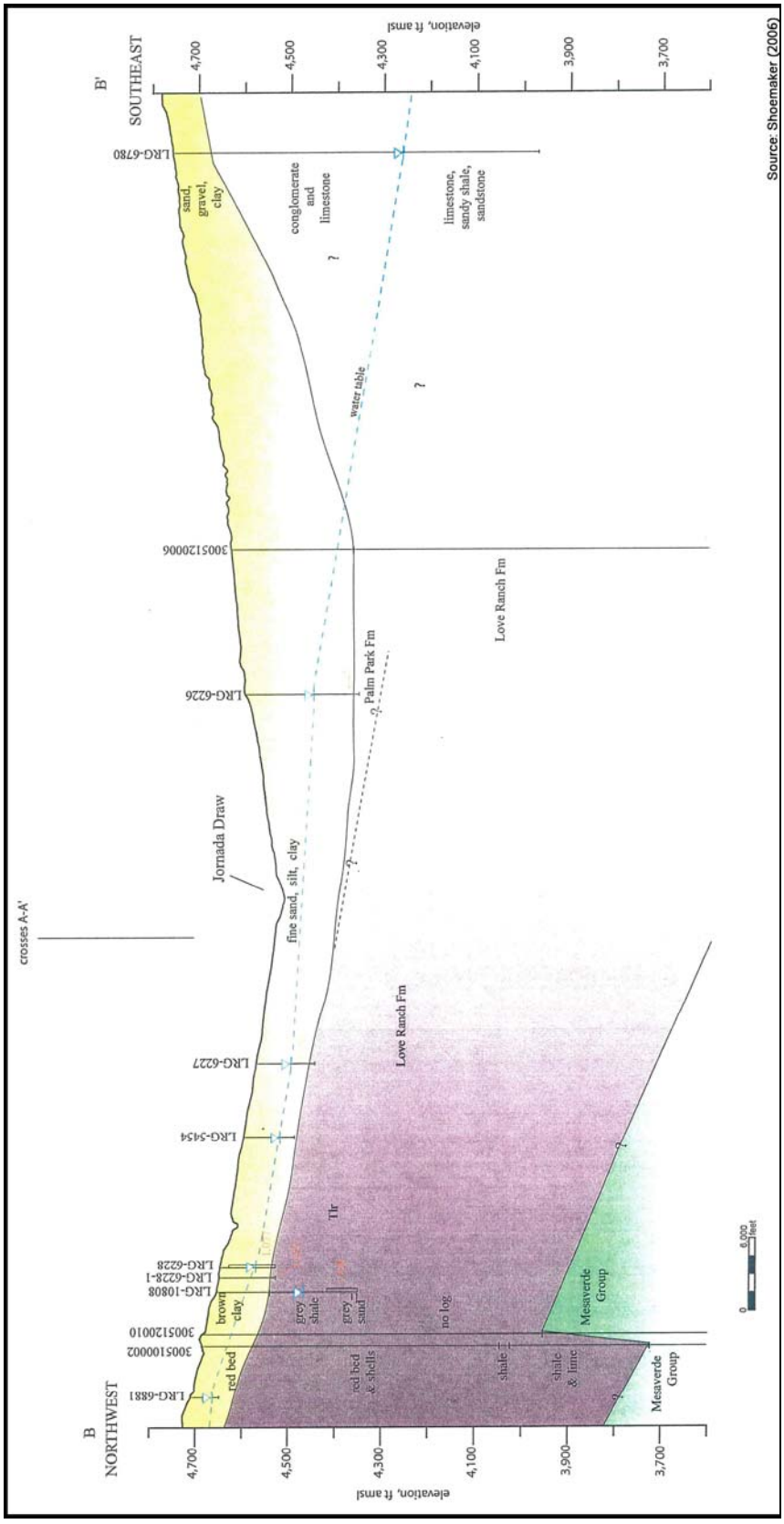


Exhibit D-4. Geologic Cross-Section B – B', Northwest to Southeast



The Doña Ana soils are described as deep and well-drained fine sandy loam developed on piedmonts from mixed alluvium. Stellar soils are deep and well-drained loam and clay loam developed in slightly depressional areas on piedmonts. Wink soils are deep and well-drained loamy fine sand and gravelly sandy loam produced on ridges and side slopes of piedmonts.

Soil limitations include high susceptibility of the sandy loam surface layers to soil blowing, and a moderate hazard of water erosion. However, these limitations are mostly controlled by proper rangeland management practices (Neher, 1984).

D.1.3.3 Seismicity

The proposed Spaceport America site is located within the Rio Grand rift, a major continental rift extending north-south through New Mexico from north of Taos to Las Cruces (Sanford et al., 2002). The overwhelming majority of Quaternary-age faults in New Mexico fall within the boundaries of the Rio Grande rift (Machette et al., 1998), and yet earthquakes are absent or nearly so over much of its extent; for example, from just south of Socorro to just north of Las Cruces. Of the 30 largest earthquakes for the period 1869 to 1998 with a moment of magnitude of 4.5 or higher, only one was recorded southeast of Socorro and it was recorded in the extreme southeast corner of the State adjacent to the Texas border.

The expected number of earthquakes with moment of magnitude 2.0 or greater for New Mexico is 19.1 each year, and for moment of magnitude 3.0 or greater it is 4.3 each year (Sanford et al., 2002). The latter are modest rates of activity for such a large region, and the resulting earthquake hazard is for the most part low.

According to Seager and Mack (1995), the Jornada Draw fault which crosses the proposed Spaceport America site, formed late during the history of the Rio Grande rift region, probably to help accommodate growing structural relief between the Caballo uplift and the Jornada del Muerto syncline. Most recent movement of the fault is estimated to be approximately 0.4 million years ago. Consequently, Seager and others view the fault as posing little earthquake risk, at least for the near future.

D.1.3.4 Hydrology and Drainage

Hydrology and drainage are discussed in Section 3.7.

D.1.3.5 Paleontology

Fossil-bearing sedimentary rocks underlying the Jornada del Muerto Basin include the Permian-age San Andres Limestone, the Cretaceous-age Mesaverde Group and Dakota Sandstone, and the Paleogene-age Park Palm Formation. However, the sedimentary rock is covered by a veneer of Quaternary-age alluvial sand and gravel largely devoid of fossils.

Reportedly, a few fossils consisting of marine shell fragments and petrified wood have been found at the proposed Spaceport America site; however, it is likely that these fossils were eroded from the Caballo and San Andreas Mountains and transported to the area by surface water.

Skeletal remains or traces of dinosaurs are known from very few localities in New Mexico. However, fragments of *Tyrannosaurus rex* have been discovered on the east side of Elephant Butte Reservoir (Wolberg et al., 1986), which is located approximately 16 miles northwest of the proposed Spaceport America.

D.1.3.6 Mineral Resources

The proposed Spaceport America area has been explored for geothermal resources, oil and gas, coal, metallic minerals, and construction minerals. However, based on discussions with the BLM's field office in Las Cruces (Allen, 2007; Merrill, 2007), the proposed Spaceport America area has very limited leasable, locatable, or salable mineral resources.

There currently are no commercial prospects for production of mineral resources within the proposed Spaceport America boundaries. Mineral resources in the proposed Spaceport America area are discussed in more detail in Appendix E.

D.2 Environmental Consequences

This section discusses impacts related to the geology, soils, seismicity, paleontology, and mineral resources from the construction and operation of the proposed Spaceport America. The Project is considered to determine whether the Proposed Actions and Alternatives could result in the following types of impacts:

- Alteration of geologic landforms
- Substantial erosion and loss of soil,
- Triggering seismic activity,
- Disturbance of significant paleontological sites, and
- Impacts to the extraction of existing and foreseeable mineral resources.

D.2.1 Proposed Action

D.2.1.1 Construction

Geology

Disruption of underlying bedrock is not likely due to the depth of the basin-fill alluvium in the proposed Spaceport America area. Alluvium may be removed during construction of building foundations and facilities. These materials may be used for roads or foundations and additional geologic material may be removed from borrow pits at the site. Impact to topography would be limited to clearing areas for facility construction and road building.

The proposed Spaceport America entrance road and adjacent utility corridor into the site from County Road A013 would cross Aleman Draw. The crossing of Aleman Draw, a 15-foot deep arroyo, would include channelization of the arroyo and installation of a bridge with culverts. Power lines, fiber optic cables, and a water pipeline would be buried in a utility corridor that crosses the Jornada Draw just before entering the vertical launch area. All construction activities that may alter a drainage feature would be conducted in accordance with applicable Clean Water Act permitting.

Soils

Soil erosion due to surface water and wind erosion would be a concern during construction. Approximately 970 acres have the potential to be cleared and graded for construction. Construction activities would include road improvements, utility installation, site grading, installation of foundations and buildings, and landscaping. Facility structures would be located away from drainage features to avoid potential impact to any of the site's ephemeral washes.

During construction, best management practices would be employed to limit soil loss. These could include:

- Soil stabilization (e.g., temporary and permanent seeding).
- Structural controls (e.g., hay bales and sediment fences).
- Management practices (e.g., construction sequencing, materials delivery sequencing, physical delineation of disturbed areas).

Seismicity

Construction activities are not anticipated to impact site seismicity.

Paleontology

Impacts to the site paleontology are expected to be minimal since no significant fossils are likely present at the site.

Mineral Resources

Based on discussions with the BLM's field office in Las Cruces (Allen, 2007; Merrill, 2007), the Spaceport America area has very limited leasable, locatable, or salable mineral resources. Therefore, the proposed Spaceport America construction activities would not result in a loss of known mineral resources. Mineral resources in the proposed Spaceport America area are discussed in more detail in Appendix E.

D.2.1.2 Operations

Geology

No impact on underlying bedrock is expected during launch or landing operations. There is a potential for LVs to crash or breakup during launching or landing operations, but the force related to falling debris would result in potential impacts to the underlying soil and alluvium only.

No impact to underlying bedrock is expected during the non-launch operations such as pre-and post-launch LV transport and preparation and day-to-day support services.

Soils

No significant impacts on site soils in the launch areas or in the landing/recovering areas are expected from propellant emissions.

The PEIS HL (FAA, 2005) states that launches of Concept H1 and H3 vehicles would not impact soils. Such vehicles would take off from a runway using conventional jet power, and subsequently would ignite rocket engines at altitude. The PEIS HL states that the launch of Concept H2 vehicles could result in ground-level rocket emissions and deposition that may impact soil by increasing the concentration of trace metals and decreasing the soil pH. Such emissions, however, are produced by solid propellant motors, which are not used for Concept H2 LVs evaluated in this EIS.

Vertical LVs would use several types of propellant systems (Exhibit 2-23). None of the vertical LV propellant systems would create launch emissions that would impact soils at the site. Solid propellant motors do emit hydrogen chloride vapor that can react with water in the atmosphere to produce hydrochloric acid (HCL), which may have the potential to impact soils near the launch

site because of acidic deposition from the launch ground cloud. However, the PEIS LL (FAA, 2001) states that Desert-Arid Environment soils like those at the proposed Spaceport America site tend to be well-buffered, and a cumulative decline in soil pH is not expected.

The impact of vertical LV components landing on the ground would not significantly impact soil at the site. All such landings would occur in a designated rocket landing area on WSMR. In addition, the descent velocity of components would be slowed by parachutes which would minimize impact on soils.

The breakup of launch vehicles during a crash and subsequent recovery activities could directly impact soils. The force associated with falling debris might create craters. The specific impact on soils would depend on the force with which the debris impacts the ground. In addition, residual propellant in the damaged or destroyed launch vehicle could be absorbed by the soils thereby affecting soil quality in the impact area. Because the probability of a crash would be low and reportable quantities of hazardous material released would be remediated per the CERCLA guidelines, any debris or residual propellant would not be expected to significantly impact soils.

No impact on soils is expected during the non-launch operations. Airfield operations would take place on hard-surfaced areas (runway, taxiway, tarmac, and parking lots) and would not disturb soil. Static test firings of rockets would not include solid propellant systems and the test stand and blast area would be constructed to prevent blast effects from blowing soil. The transport and storage of fuel and propellants could contaminate soil in cases of spills; however, because the probability of a spill is low and reportable quantities of hazardous material released would be remediated per the CERCLA guidelines, any releases of propellant would not be expected to significantly impact soils.

Other activities such as pre- and post-launch LV transport and preparation, as well as day-to-day support services, also would not impact site soils.

D.2.1.3 Summary of Impacts from the Proposed Action

There would be minimal to no impacts to geology and soils from implementation of the Proposed Action.

D.2.2 Alternative 1 – Horizontal Launch Vehicles Only

There would be no impacts to geology, soils, seismicity, paleontology, and mineral resources expected from Alternative 1. The footprint of the disturbed area would be less than the Proposed Action because the vertical launch area would not be constructed. Potential impacts from vertical launch operations would be eliminated because there would be no such launches.

D.2.3 Alternative 2 – Vertical Launch Vehicles Only

There would be no impacts to geology, soils, seismicity, paleontology, and mineral resources expected from Alternative 2. The footprint of the disturbed area would be less than the Proposed Action because the airfield area would be smaller. Potential impacts from horizontal launch operations would be eliminated because there would be no such launches. Potential impacts from airfield operations, including aircraft usage, would be reduced.

D.2.4 No Action Alternative

Under the No Action Alternative, no launch site operator license would be issued, and no launch operation activities would occur. There would be no impact to site geology, soils, seismicity, paleontology, and mineral resources under this alternative.

D.3 Cumulative Impacts

Impacts to geology, soils, seismicity, paleontology, and mineral resources from construction and operation of the proposed Spaceport America are expected to be negligible. Thus, there would be no cumulative impact to these resources from the proposed Project.

D.4 Mitigation

Construction contractors would employ soil stabilization measures, structural controls, and construction management practices to reduce soil loss during the construction phase of the Project. Soil stabilization measures would include grading and seeding disturbed areas with a native grass mix. Structural controls, which could include silt fences and secured hay/straw wattles, would be designed to trap disturbed soil and prevent its movement off site or into washes. Management considerations would include timing and sequencing of construction work to reduce the amount of time areas remained exposed to the elements (seeding areas and installing controls quickly) and clearly marking areas that are to be avoided or protected because they are likely to erode due to slope or soil type.

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Seventh Annual Field Conference, October 16-18, 1986, eds. Russell Clemons, William King, and Greg Mack.

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APPENDIX E
MINERAL RESOURCES

The proposed Spaceport America facility would be located in south-central New Mexico about 45 miles north of Las Cruces and 30 miles southeast of Truth or Consequences in the central part of the Jornada del Muerto Basin. The proposed Spaceport America facility is almost exclusively on New Mexico State Trust land. Approximately 280 acres are private deeded properties of two landowners. All the land owned by the State retains site mineral resources under State jurisdiction.

E.1 Affected Environment

Mineral resources include oil and gas, geothermal resources, coal, non-energy minerals such as metallic ore deposits, industrial minerals such as fluorite and gypsum, and construction materials such as sand and gravel.

E.1.1 Oil and Gas

Energy companies have shown intermittent interest in the Jornada del Muerto area since the 1920s. According to New Mexico Bureau of Mines & Mineral Resources records, Shomaker (2006) and Bieberman et al. (no date), 32 petroleum exploration wells have been drilled in Sierra County, but only three wells reported shows of oil or gas. Between 1927 and 1983, sixteen petroleum exploration wells were drilled within a 10-mile radius of the proposed Spaceport America site, but none of the wells encountered hydrocarbons. A summary of the well details is presented in Exhibit E-1 and the locations of the wells are shown in Exhibit E-2.

No production has occurred within or near the proposed Spaceport America site, and all exploration in the proposed Spaceport America site vicinity has ceased. There are no active Federal leases for oil and gas immediately adjacent to the proposed site; all leases either have been terminated, relinquished, or have expired.

E.1.2 Geothermal

Geothermal resources in New Mexico are generally associated with the Rio Grande rift. One geothermal lease existed within the southern portion of the proposed Spaceport America site during the mid-1970s but was withdrawn (Merrill, 2007). A hot spring reportedly occurs approximately 1.5 miles north of the proposed Spaceport America (Summers 1972). The town of Truth or Consequences was originally named Hot Springs for the hot mineral springs developed for the tourist trade.

Although it is possible that geothermal resources occur within the boundaries of the proposed Spaceport America, no active geothermal leases currently exist (Merrill, 2007). Because the area proposed for Spaceport America is owned by the State, State leasing would be required for geothermal exploration and development at the site.

Exhibit E-1. Oil and Gas Exploration Wells within a 10-Mile Radius of the Proposed Spaceport America Project Site

Well Name	API No.	Location	Date Installed
Beard Oil Co., Jornada del Muerto, No. 4	3005120005	T15S, R1E, S2	1976
Beard Oil Co., Jornada del Muerto, No. 1	3005120002	T14S, R1W, S17	1973
Wofford, Wofford, No. 1	3005100021	T14S, R2W, S7	1949
Wofford & Kaltenbach, No. 1	3005100020	T14S, R2W, S2	1944
Bruton Development Co., No. 2	3005100015	T16S, R2E, S21	1963?
Exxon Co., Prisor, No. 1	3005120006	T16S, R1E, S20	1976
Sunray Mid-Continent Oil Co., Sierra County Strat. Test No. 1	3005100011	T15S, R2W, S21	1960
Sunray Mid-Continent Oil Co., Federal "H", No. 1	3005100002	T15S, R2W, S23	1959
Overthrust Resources, LTD, Federal No. 23, No. 1	3005120010	T15S, R2W, S23	1983
Wofford, Wilson, & King, State B-8754, No. 1	3005100022	T14S, R2W, S8	1942
Wofford, Winslow, Wright, & Kaltenbach, State B-8754, No. 1	3005100024	T14S, R2W, S18	1943
Sunray Mid-Continent Oil Co., Sierra County Strat. Test No. 3	3005100013	T14S, R1E, S5	1960
Exxon Co., Beard-Federal, No. 1	3005120003	T14S, R1E, S5	1974
Beard Oil Co., Jornada del Muerto, No. 5	3005120007	T14S, R1E, S13	1977
Winslow & Wright, State E-1218, No. 1	3005100025	T14S, R2W, S19	1948
McCall Drilling Co., Park Bowers, No. 1	Not available	T14S, R2W, S19	1927

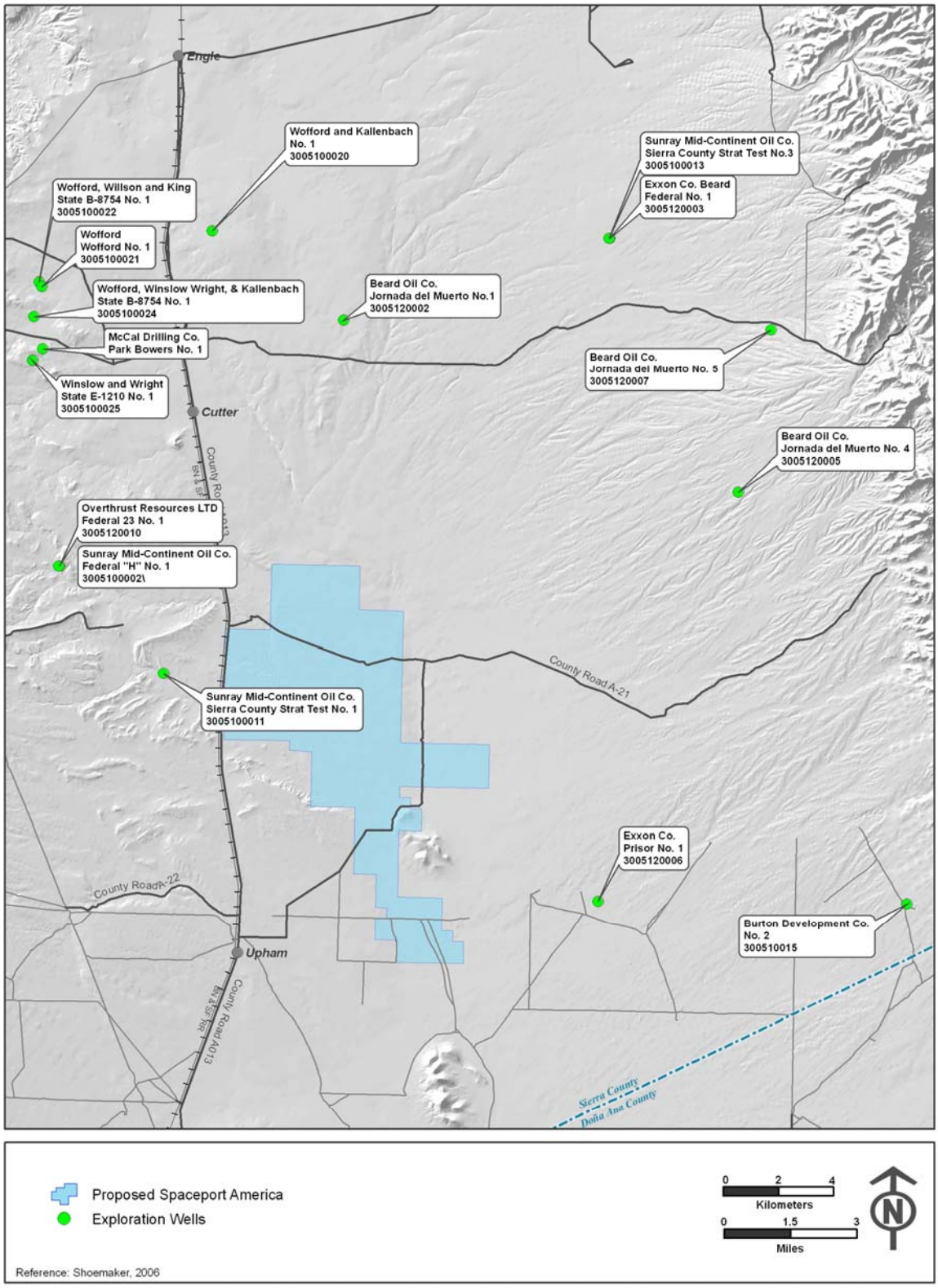
Adapted from Shomaker, 2006.
API = American Petroleum Institute

E.1.3 Coal

Coal in the vicinity of the proposed Spaceport America is restricted to the Engle coal field, which is roughly bounded by Truth or Consequences on the northwest, Engle on the northeast, Cutter on the southeast, and Palomas Gap on the southwest (Tabet, 1980). According to Tabet, the exposures of coal deposits are generally thin and the rank of the coal is subbituminous. The steep dips and thin and discontinuous nature of the coal beds make future production from the Engle field unlikely (Seager and Mack, 2003).

Lithologic boring logs from the sixteen petroleum exploration wells that have been drilled within a 10-mile radius of the proposed Spaceport America site indicate that coal was not encountered at depths up to11,000 feet below ground surface.

Exhibit E-2. Exploration Wells Located Within a 10-mile Radius of the Proposed Spaceport America Project Site



E.1.4 Metallic Ore Deposits

The known ore deposits of Sierra County are confined entirely to the mountainous areas (Harley, 1934). Gold, silver, copper, molybdenum, lead, zinc, manganese, tungsten, iron, vanadium, fluorite, and barite are present in the Caballo Mountains west of the proposed site. Of these, fluorite, barite, manganese, gold, molybdenum, copper, and vanadium have been produced in economic quantities (Seager and Mack, 2003).

Between 1910 and 1911, the Vanadium Mines Company operated a vanadium leaching plant at Cutter (located approximately 4.5 miles northwest of the proposed Spaceport America) to process vanadium mined from the Caballo Mountains (Palomas Gap) area. The plant was equipped with 10 acid-leach tanks, two evaporating furnaces, and one calcining furnace. However, the plant failed after one year due to an inefficient leaching process (Eveleth, 1986).

Gold placer deposits are present in arroyos, fans, and alluvium shed from the Caballo Mountains (Seager and Mack, 2003), and several claims existed for areas near the western margin of the proposed Spaceport America. None of these claims are active or valid (Merrill, 2007).

Metallic ore deposits have not been documented to occur within the boundary of the proposed Spaceport America.

E.1.5 Industrial Minerals

Gypsum was removed in limited quantities from an area near the southwest corner of the proposed Spaceport America. The gypsum was most likely removed over the course of many years and used for local agricultural purposes. Mineral prospecting for barite and fluorite has also occurred beyond the southwest corner of the proposed site (Merrill, 2007).

The former Wilcox mine, which consists of two calcite prospect pits, is located near the Point of Rocks to the south of the proposed site. There has been no recent mining activity on these prospects (Merrill, 2007).

E.1.6 Construction Materials

Sand and gravel have been mined from within the proposed Spaceport America boundary, but only for local use. No commercial production has been recorded within the proposed site boundaries (Merrill, 2007). The thickness of sand and gravel deposits (up to 30 feet) suggests that the potential to develop this resource within the boundary of the proposed site is moderate to high. There are vast high quality resources of sand and gravel elsewhere in the general area.

Mining of caliche within the proposed site boundary has not occurred, and no commercial production has been recorded within the proposed Spaceport America site. The thickness of caliche deposits suggests that the potential to develop this resource within the boundary of the proposed site is moderate to high. There are vast resources of caliche elsewhere in the general area (a caliche pit is located approximately 8.5 miles north of the proposed Spaceport America [Pfeil et al., 2001]).

E.2 Environmental Consequences

The area has been explored for geothermal resources, oil and gas, coal, metallic minerals, and construction minerals. There currently are no commercial prospects or production of mineral resources within the proposed Spaceport America boundaries (Merrill, 2007). The Proposed Action, Alternative 1, and Alternative 2 would not result in significant impacts to mineral

resources because the proposed Spaceport America site either has very limited mineral resources, or, in the case of construction materials, there are large alternate sources off-site. The No Action Alternative also would not impact mineral resources or the development thereof. However, because the proposed Project site would not be developed as a commercial spaceport, development of construction material resources could occur under this alternative.

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APPENDIX F
AIRSPACE

F.1 Affected Environment

Airspace above Spaceport America and much of the surrounding area is restricted and is generally controlled by WSMR, although control of part of the airspace is transferred to the FAA Albuquerque Center when it is not in use by WSMR. Spaceport America would not require creation of any additional restricted airspace. Spaceport America has a memorandum of agreement (MOA) with WSMR that allows Spaceport America to schedule use of this airspace during Spaceport America operations. This MOA is currently being updated by WSMR and NMSA. As part of the launch site operator's license application, and in accordance with 14 CFR Part 420, NMSA will develop an airspace letter agreement with the FAA Air Route Traffic Control Center (ARTCC) for operations in unrestricted airspace. Almost all Spaceport America spaceflight activity would be conducted while WSMR maintains full control of the airspace. Aircraft activities at Spaceport America when Albuquerque Center has control would be handled using approved FAA procedures.

F.1.1 Definition of Resource

Airspace is the defined space above a nation that is under its legal control. Airspace is limited horizontally, vertically, and temporally. The FAA designs and manages the national airspace based on guidelines from the Federal Aviation Regulations. The FAA has developed specific classifications for airspace to establish limits on its use. These classifications include Controlled, Uncontrolled, and Special Use airspace; military training routes; en route airways and jet routes; airports and airfields; and air traffic control. The FAA manages commercial and general aviation activity within the airspace and the military, with the FAA oversight, manages military aviation activity within Special Use and Other airspace.

As further described in the PEIS HL (FAA, 2005), the types of airspace are defined by the complexity or density of aircraft movements, the nature of operations conducted within the airspace, the level of safety required, and the national and public interest in the airspace. The classes of airspace are controlled, uncontrolled, special use, and other airspace, as defined in Exhibit F-1.

Restricted areas are airspace identified by an area on the surface of the Earth within which the flight of aircraft, while not wholly prohibited, is subject to restriction. Activities within these areas are confined to permitted activities and limitations are imposed upon all other aircraft operations. Restricted areas generally are used to contain hazardous military activities. The term "hazardous" implies, but is not limited to, weapons deployment (these areas also are referred to as controlled firing areas and may be either live or inert), aircraft testing, and other activities that would be inconsistent or dangerous with the presence of non-participating aircraft.

Exhibit F-1. Definitions of Airspace Categories

Category	Definition	Examples
Controlled Airspace	Airspace used by aircraft operating under instrument flight rules that require different levels of air traffic service; Altitudes above FL 180 (18,000 feet above MSL)	Airport Traffic Areas, Airport Terminal Control Areas, Jet Routes, Victor Routes
Uncontrolled Airspace	Airspace primarily used by general aviation aircraft operating under visual flight rules	As high as 14,500 feet above MSL
Special Use Airspace	Airspace within which specific activities must be confined or access limitations are placed on non-participating aircraft	Restricted Areas, Military Operations Areas
Other Airspace	Airspace not included under controlled, uncontrolled, or special use categories	Military Training Routes

FL = flight level
MSL = mean sea level

Controlled airspace refers to airspace used by aircraft operating under instrument flight rules that require different levels of air traffic service. As shown in Exhibit F-1, examples of controlled airspace include the altitudes above Flight Level (FL)180 (18,000 feet above MSL), some Airport Traffic Areas, and Airport Terminal Control Areas. General controlled airspace includes the established Federal airways system, which consists of the high altitude (Jet Routes) system flown above FL180, and the low altitude structure (Victor Routes) flown below FL180.

F.1.2 Regulatory Setting

Use of the airspace above the potential launch site is regulated by the FAA pursuant to its regulations at 14 CFR 71. By prior agreement with the FAA, WSMR has control of all Restricted Airspace in a four-county area near WSMR, including the airspace above the Spaceport America site. When it is not required for operations, WSMR sometimes temporarily releases the use of this airspace. At these times, it is under the control of the FAA Albuquerque Center. Spaceport America would schedule all spaceflight activity with WSMR while the airspace is under WSMR control. Some limited aircraft and horizontal landing activity would be coordinated with the FAA Albuquerque Center when it is appropriate (when the WSMR airspace is under the control of Albuquerque Center or when operations would take place in controlled rather than restricted airspace). No Spaceport America flight activity is presently expected to occur in international airspace or the airspace of another sovereign nation.

All alterations and temporary closures of existing airspace are processed through the FAA. The FAA reviews and approves all such modifications. Use of restricted airspace and warning areas requires the issuance of a Notice to Airmen (NOTAM), which provides notice to all aircraft of the restricted or warning area via air traffic control. The FAA is the designated agency that coordinates the airspace activities with the International Civil Aviation Organization (ICAO).

F.1.3 Region of Influence

WSMR controls airspace above and around their controlled ground space at all times. They also control an area of adjacent airspace to the west when they are conducting military test operations

on the test range. This restricted airspace includes the airspace above and around the proposed Spaceport America location. Aircraft flights from Holloman Air Force Base also use portions of WSMR restricted airspace. There are times, especially during night and weekend hours, when WSMR relinquishes the adjacent airspace to the FAA Albuquerque Center for use.

F.1.4 Existing Conditions

The proposed Spaceport America site is within WSMR restricted airspace.

F.2 Environmental Consequences

Spaceport America operations would, at most times, take place within Special Use Airspace of the WSMR restricted areas, as described in Section F.1. No additional restricted airspace would be required. Restricted airspace would be used for all vertical launch activities. There could be rare cases due to upper wind conditions in which horizontal launch vehicles returning from space flight would briefly enter the upper portion of Controlled Airspace (just below FL 600 [60,000 ft MSL]) just west of WSMR Restricted Airspace.

F.2.1 Proposed Action

Under the Proposed Action, the FAA would issue licenses for the horizontal and vertical launch of suborbital space vehicles and their reentry. Operation of facilities is implicitly included in such activities. Because the launch profiles and flight paths for each of these vehicles would be mostly within WSMR restricted airspace, impact to the FAA controlled airspace is expected to be very limited. It is expected that after a full FAA safety review and approval process, Spaceport America launch and reentry activities would not result in a significant impact on other FAA controlled airspace. The impact on WSMR Restricted Airspace becomes a scheduling issue that can be handled using the MOA processes already in place.

The FAA safety review and approval process determines whether a license applicant, payload owner, or operator has obtained all required licenses, authorizations, and permits. (See Appendix A of the PEIS HL, FAA Licensing Program, and Section 1.5 in this EIS for additional information.) Under this process, the applicant may be required to obtain airspace use authorizations to use military airspace or may be required to coordinate with the FAA ARTCC to provide for adequate airspace safety during launch or reentry activities. (See Appendix D of the PEIS HL, Regulatory Process Description.)

F.2.1.1 Construction Activities

All construction activities would use ground equipment without entering controlled airspace. Therefore, construction activities are not relevant to analysis of impacts to controlled airspace.

F.2.1.2 Launch Operations

Spaceport America is expected to operate as a commercial spaceport with launch and recovery of both horizontally- and vertically-launched vehicles. There would be a 10,000 foot runway complex that would accommodate standard aircraft, spacecraft launching aircraft, and landing of horizontally flown spacecraft. This would include the possibility that a spacecraft might return for a landing at the point of origination of its flight (runway or launch pad) under some emergency conditions. Spaceport America would schedule use of WSMR restricted airspace for all Spaceport America launch activity. Thus Spaceport America would become a user of WSMR airspace and schedule launch operations in the same manner that other WSMR customers currently schedule their activities.

Airport and Spaceport Airspace Use

Airspace at Spaceport America is ultimately controlled by WSMR. Spaceport America would not require creation of additional restricted airspace beyond that which already exists at WSMR. Any aircraft or spacecraft operations at Spaceport America would be scheduled with WSMR so that airspace use would be fully coordinated with WSMR schedules to assure that those operations would be carried out safely and successfully.

A typical large commercial airport has an operational control tower and approves and controls instrument approaches to the airport. The tower has control over aircraft ground operations, approaches to, departures from, and aircraft flying within a five-mile radius plus any extension required for instrument approaches. Airport control zones extend from the surface to 5,000 feet above ground level. En route instrument flight operations at cruise altitudes are monitored and controlled by regional FAA facilities linked to provide continuous transcontinental and international flight control. Aircraft performing instrument approaches to and departures from an airport are controlled by local control facilities at the same time as operating at intermediate altitudes.

Spaceport America spaceflight operational procedures would establish a control zone around the launch and landing areas similar to a commercial airport control zone. Spaceport America would perform functions similar to the airport control tower and approach/departure control authority. LV operations on the ground and during the initial phases of flight would be coordinated and controlled within the control zone by NMSA or another agency designated by the State of New Mexico. The launch operator would have the same responsibilities as an aircraft operator or pilot-in-command with regard to vehicle operations and flight safety. Launch operations at Spaceport America, after coordination with WSMR to schedule space vehicle flight times, would gain control of the required airspace and proceed with nominal flight operations. Upon conclusion of the flight operations, Spaceport America personnel would notify the proper WSMR officials and relinquish airspace control to WSMR.

It is expected that Spaceport America customer daily use of the airspace can be negotiated with WSMR to have a minimum impact on WSMR routine operations.

F.2.1.3 Non-Launch Operations

All ground operations are expected to have no impact on regional airspace. Normal aircraft operations at the Spaceport America airfield would be handled by the airfield operations control process and the FAA Albuquerque Center. During the five-year time period considered in this EIS, daily flight operations of aircraft are expected to be very limited. As discussed in Chapter 2, only 43 landings and take-offs are expected per week during the majority of the year. During yearly X Prize Cup, which would last about 7 days, up to 29 additional landings and take-offs could occur per day.

F.2.1.4 Summary of Impacts from the Proposed Action

The effects of Spaceport America activities on regional airspace would be minimal. No new restricted airspace would be required, and operations into Spaceport America would be controlled in the same manner as routine instrument flight rules traffic.

F.2.2 Alternative 1 – Horizontal Launch Vehicles Only

Under this alternative there would be no vertical launches. Even though the Proposed Action would not significantly impact the regional airspace, there would be even less impact in this alternative because there would be less use of the airspace.

F.2.3 Alternative 2 – Vertical Launch Vehicles Only

Under this alternative there would be no horizontal launches and there would be fewer aircraft flights. Even though the Proposed Action would not significantly impact the regional airspace, there would be even less impact in this alternative because there would be less use of the airspace.

F.2.4 No Action Alternative

Under the No Action Alternative, Spaceport America would not be constructed and operated. Use of the regional airspace would continue at its current levels for the foreseeable future. Airspace in the region would continue under WSMR restrictions.

F.3 Cumulative Impacts

The cumulative impacts of Spaceport America activities on regional airspace would be minimal. No new restricted airspace would be required and operations into Spaceport America would be controlled in the same manner as routine instrument flight rules traffic.

F.4 Mitigation

Because the impacts on regional airspace would be minimal, no mitigation measures would be necessary.

REFERENCES CITED

FAA (Federal Aviation Administration) 2005. Final Programmatic Environmental Impact Statement for Horizontal Launch and Reentry of Reentry Vehicles. Available at http://www.faa.gov/about/office_org/headquarters_offices/ast/licenses_permits/media/Final_FAA_PEIS_Dec_05.pdf.

APPENDIX G
HEALTH AND SAFETY

G.1 Affected Environment

G.1.1 Definition and Description

Health and Safety includes consideration of any activities, occurrences, or operations that have the potential to affect the well being, safety, or health of workers or members of the general public. Overall public health and safety is controlled by a host of legislation that regulates transportation of hazardous cargo, provides for the protection of workers in the work place, protects the public from exposure to hazardous materials, and provides for emergency preparedness.

G.1.2 Regulatory Setting

The primary objective of the FAA's commercial space transportation licensing program is to ensure public health and safety through the licensing of commercial space launches and reentries, and the operation of launch facilities. The FAA licenses, regulations, and approvals are discussed in Section 1.5.

OSHA regulations 29 CFR Part 1910 (Occupational Safety and Health Standards) and Part 1926 (Safety and Health Regulations for Construction) would apply to all construction and operational activities at the proposed Spaceport America. Also applicable are the FAA regulations at 14 CFR Parts 400-450, which include the various commercial space transportation licensing programs of the FAA. DOT Hazardous Materials Regulations, 49 CFR Parts 171-173 (Hazardous Materials Safety) also would apply to the transport of hazardous materials by roadway vehicles.

The Emergency Planning and Community Right-to-Know Act (EPCRA, 42 U.S.C. 11001 et seq.) also is applicable. This national legislation on community safety was designated to help local communities protect public health, safety, and the environment from chemical hazards. To implement EPCRA, Congress required each State to appoint a State Emergency Response Commission. New Mexico's Commission is within the NM Department of Public Safety.

State regulations that would apply are contained in 11.5 NMAC, Occupational Health and Safety, particularly parts 11.5.2 (General Industry) and 11.5.3 (Construction Industry). There are no State regulations that apply to launch-specific health and safety considerations.

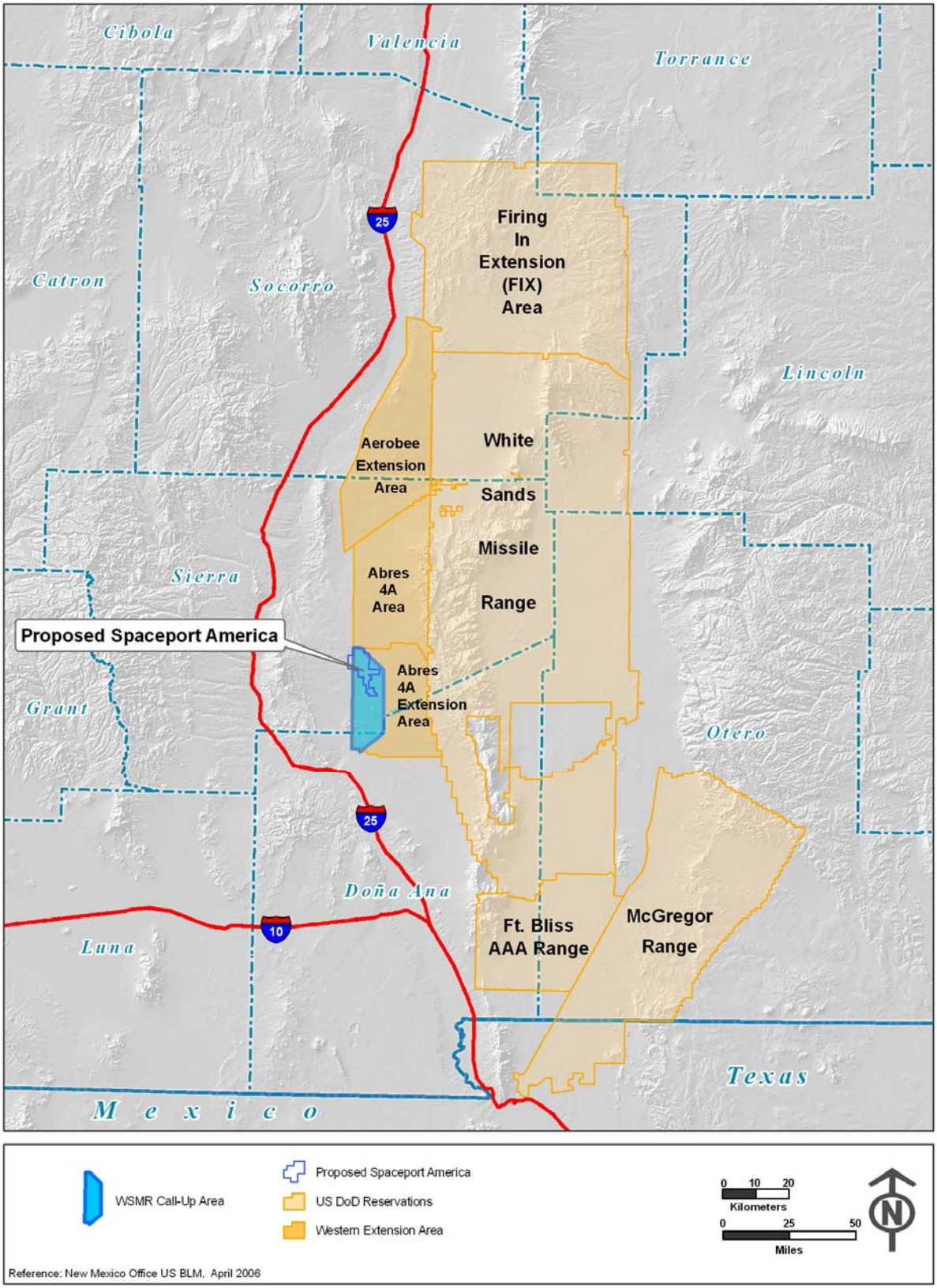
G.1.3 Region of Influence

The proposed Spaceport America location is exposed to risks from WSMR launch operations. WSMR has agreements with surface owners and lessees of land along its western and northern boundaries to "call-up" the land when needed for testing within the range. Under these agreements, owners and lessees are required to vacate these range extensions (the so-called call-up zones) on 24-hour notice to accommodate testing requirements. They are compensated for their expenses associated with these evacuations. In addition to firing rockets on WSMR, the range has developed launch facilities for long-range testing in other areas of New Mexico, Utah, and Idaho. In these tests, the missiles are fired from the remote location to impact on WSMR.

G.1.4 Existing Conditions

The location of the proposed Spaceport America lies within the Abres 4A Extension Call-up Area. Exhibit G-1 shows the WSMR call-up areas. As indicated in this map, most of lands west

Exhibit G-1. Location of Spaceport America within the WSMR Call-up Area



of WSMR are already subject to rocket launch risks to the degree that these areas may be evacuated (or "called up") up to 24 times each year. The actual number of times these areas have been "called up" in recent years has not been released by WSMR.

G.2 Environmental Consequences

Health and safety consequences would apply to three groups of people:

- On-site (persons involved in Spaceport America construction and operation, including visitors involved directly in operations, such as the FAA monitors and space flight participants),
- Visitors (members of the public at the proposed Spaceport America spectator area or in the viewshed of Spaceport America launches and events), and the
- General public (persons in surrounding areas not visiting the proposed Spaceport America).

Persons on-site could be exposed to potential hazards from construction activities, launch operations, and non-launch operations. These hazards would be minimized by following applicable Federal and state regulations and guidelines. Hazards to visitors could result from launches, airspace operations, and some X Prize Cup activities, such as static rocket firings. These hazards would be minimized by strict safety and distance policies. There could be risks to the general public from launches, as launches could potentially affect areas many miles away in cases of catastrophic accidents.

For the reasons above, this discussion primarily addresses those activities that could affect the health and safety of visitors and the general public. Specific health and safety consequences from construction and operation of Spaceport America are discussed below for the proposed and alternative actions.

G.2.1 Proposed Action

In addition to the health and safety impacts presented below, the increased traffic resulting from construction and operation of the proposed Spaceport America could impact public health and safety due to an increase in the number of traffic accidents. Traffic accidents are analyzed separately in Appendix H.

G.2.1.1 Hazard Analyses

Per FAA regulations (14 CFR 420), the ability to perform hazard analyses would be required at Spaceport America.

Chemical Hazards

For chemical hazards under normal operating conditions, or for foreseeable emergencies, this would be accomplished using chemical information, job hazard analysis, and chemical hazard analysis techniques. These are narrowly defined techniques whereby potential hazards are identified by examining elements of individual work tasks. Typically, these methods are useful for protecting the work force and demonstrating compliance with OSHA safety and health standards. In addition, they reveal information about chemical wastes that would be subject to EPA waste disposal regulations and to the EPCRA. Job hazard and hazardous chemical analyses

would occur at the inception of Spaceport America and would be continually updated as the facility matures.

OSHA's Process Safety Management of Highly Hazardous Chemicals Standard (29 CFR 1910.119) mandates a systematic examination of "critical processes" as a whole. A critical process is a term used by OSHA to define processes that use large amounts of chemicals or chemicals that potentially are dangerous. Process safety management is a proactive approach that targets processes and operations that have the potential to cause a catastrophic incident. This standard would be implemented to prevent or mitigate chemical releases that could lead to a catastrophe in the workplace and possibly to the surrounding community. Possible examples at Spaceport America where this standard would apply include

- Fuel storage and refueling,
- Propellant storage and loading/unloading,
- Handling flight hardware, and
- Launch and recovery operations.

Systems Safety Engineering

Another form of hazard analysis is systems safety engineering. Generally, systems safety engineering would be applied to complex systems such as spacecraft design and procedural controls. Spaceport America would employ systems safety engineering techniques to design, equip, and operate the Spaceport America facility. The systems safety concept is defined by Roland and Moriarty (1983) as

> "…the application of special technical and managerial skills to the systematic, forward-looking identification and control of hazards throughout the life-cycle of a project, program, or activity. The concept calls for safety analyses and hazard control actions, beginning with the conceptual phase of a system and continuing through the design, production, testing, use, and disposal phases, until the activity is retired."

Examples at Spaceport America where systems safety engineering would be applied include:

- Launch facility design and operations,
- Launch facility and launch vehicle system interfaces,
- Routine and non-routine launch procedures,
- Emergency preparedness planning,
- Range safety planning,
- Launch and recovery planning, and
- Accident investigations.

G.2.1.2 Emergency Preparedness

Security, fire, safety, and emergency response capabilities would be provided by NMSA for operational activities. NMSA may enter into contracts with these service providers, or may rely on local police and fire departments. Spaceport America would provide, either by contract from off-site sources or by developing this capability on-site, a local firefighting capability in case of

accidents on the airfield or the vertical launch pads, as well as suppression of wildfires caused naturally or by accidents. Whichever options are selected, such capabilities would be present at Spaceport America to handle emergencies.

G.2.1.3 Construction Activities

Components to be constructed include roads, utilities, concrete pads, a runway, various types of buildings, and fuel and propellant storage facilities. Construction would also entail activities at a borrow pit, quarry, and concrete batch plant, all in the proposed Spaceport America vicinity. Visitors and the general public (as defined above) would not be exposed to health and safety hazards at Spaceport America unless they intentionally and without permission went to construction sites. On-site persons would have to follow all applicable health and safety regulations. The general public would not be subjected to health and safety risks at the Spaceport America site as a result of construction activities.

G.2.1.4 Launch Operations

Commercial operators proposing to launch from Spaceport America must receive a mission license from the FAA prior to launch. Reusable launch vehicle operators must meet the safety requirements outlined in 14 CFR Part 431. Operations conducted under an Experimental Permit must comply with the requirements outlined in 14 CFR Part 437.

Risks Associated with Falling Debris Outside of Spaceport America Area

A potential impact to the general public outside Spaceport America area would be falling debris. Falling debris could result from a catastrophic failure after a launch vehicle has moved well away from the launch site, including failures during the descent phase. The proposed Spaceport America site is in an extremely sparsely populated area and would have vertical launch trajectories directed toward and over WSMR. Safety requirements would be met as part of the FAA licensing process.

Vertical concept vehicles could travel east from a Spaceport America launch pad to land within WSMR. There are currently no persons living immediately east of the proposed Spaceport America, although there could be persons visiting the area. Persons within WSMR would be notified of Spaceport America launches and would evacuate the recovery area according to the FAA and WSMR standard safety procedures for launches.

Risks Associated with Horizontal LV Failures within Spaceport America

Concept H1 and H3 vehicles could take off from Spaceport America airfield under jet power and would pose no greater risk than jet aircraft. Although Concept H2 vehicles would take off under rocket power, there are only two such launches estimated per year. Horizontal launches are inherently less risky than vertical launches because the vehicles are under manned guidance control during launch, and engines (both jet and rocket) can be throttled down or turned off if necessary to abort a launch. Once launched, this ability to control engine thrust would also allow an early abort of a launch.

Risks Associated with Vertical LV Failures within Spaceport America

A catastrophic failure of a vertical launch vehicle at or immediately following launch could occur on the pad, or after the vehicle has traveled several miles before impacting the ground. The FAA must issue a launch license or experimental permit for a specific type of launch before

any launches could occur at Spaceport America, and a safety analysis would be required to obtain this license.

The types of persons who could be affected by a failure are outlined in Exhibit G-2. The type of persons, their locations, and distances from the closest and farthest vertical launch pads are outlined in the exhibit. These are the shortest distances, based on the proposed site layout. The closest persons not directly participating in the launch would be more than four miles northwest of the launch pad, and launch trajectories would be to the east.

Exhibit G-2. Locations of Persons and Shortest Distances to Vertical Launch Pads

Type of Persons	Location	Distance from Launch Pad 3 (Closest Pad)	Distance from Launch Pad 1 (Farthest Pad)
Launch personnel	Vertical launch area control center	0.56 miles	0.47 miles
Other Spaceport America personnel	Airfield facilities area	4.64 miles	5.40 miles
General public	Spectator area	4.83 miles	5.68 miles

Exhibit G-2 does not include members of the public outside of Spaceport America boundaries. Launches would not take place if the FAA risk criteria would be exceeded. All members of the public would be included in this analysis.

Risks Associated with Launch Vehicle Propellants

Impacts to the atmosphere from launch operations, including rocket exhaust products and accidents, are discussed in Section 4.6 and are considered to be not significant. Members of the public and uninvolved workers would never be permitted close enough to propellant loading operations or to a fueled vehicle to be in danger. The separation distance between non-launch personnel and vertical launch pads (more than three miles) would prevent exhaust products from having health consequences. If strong winds were blowing from the launch pad toward the airfield and spectator areas, the launch would not take place. Horizontal launches would be almost exclusively jet powered, with risks typical of commercial jets taking off at airports.

G.2.1.5 Non-Launch Operations

Non-launch operational activities that may potentially have health and safety consequences are discussed in this section.

Risks Associated with Potential Impacts on Air Quality

Several types of non-launch operations could potentially affect public health and safety by producing air pollutants. The activities and sources at Spaceport America that may potentially emit air pollutants include:

- Static test firing of rocket engines,

- Fuel and propellant storage and handling,
- Airfield and airspace operations, and
- Miscellaneous air pollutants.

The environmental consequences on air quality from these sources are discussed in Section 4.6.

Risks Associated with Airspace Operations

Horizontal launches and landings, which would use the proposed Spaceport America airfield, are discussed in Section G.2.1.4. Risks discussed here are those from normal (non-X Prize Cup) airspace operations by conventional aircraft. Neither general aviation nor regularly scheduled commercial aircraft would use the proposed Spaceport America airfield. Any risks to airfield staff would be minimized by following standard airport safety procedures. Risks to the general public or visitors would be extremely small and would be similar to a small airport located in an unpopulated rural environment.

Risks Associated with the Annual X Prize Cup

As many as 20,000 visitors per day are estimated to attend the annual seven-day X Prize Cup. Activities predicted to occur include horizontal and vertical launches, rocket racing, static rocket test firings, flight demonstrations, various exhibitions, and concessions. There are risks associated with any type of event in which large numbers of people converge on a single point. Every effort would be made by Spaceport America and the event managers to avoid any activities with significant risk to these visitors. Also, these visitors would be aware of the planned event activities, and would be going to the event to participate in those activities. None of the activities would cause significant risk to members of the general public not attending the event. If the risk associated with an activity were significant to either visitors or the general public, the activity would not take place.

G.2.1.6 Summary of Impacts of the Proposed Action

Persons working at Spaceport America would be exposed to potential hazards from construction activities, launch operations, and non-launch operations. These hazards would be minimized by following OSHA, the FAA, NASA, DOT, and State applicable regulations and guidelines. Also, Spaceport America policies and procedures manuals would be written to minimize health and safety risks. Hazards to visitors could result from launches, airspace operations, and some X Prize Cup activities, such as static rocket firings. These hazards would be minimized by strict safety and distance policies. There would be risks to the general public from launches, as launches could potentially affect areas many miles distant in cases of catastrophic accidents. Other hazards to the general public would be increased risk of traffic accidents due to increased Spaceport America-related traffic and risk of exposure to hazardous materials from trucks transporting fuel and propellants to and from Spaceport America (see Section 4.9).

During construction, on-site persons would have to follow all applicable health and safety regulations. The general public would not be subjected to health and safety risks at Spaceport America site as a result of construction.

Although there would always be risks associated with launches, the goal of the FAA, as issuer of the launch site operator license to Spaceport America and launch licenses to launch operators, is to make all efforts to minimize this risk. The key element in reducing risks from launches is

extensive hazards analysis prior to issuing a launch license. Neither the FAA nor Spaceport America would allow a launch that exceeded risk thresholds. At a vertical launch, on-site launch personnel would be at least 0.47 miles away from the launch pad, and since all other persons would be more than four miles from the pad, the probability that a vertical launch would injure persons would be extremely low. Horizontal launches planned for Spaceport America would almost exclusively involve jet-powered takeoffs, which are similar to commercial jet aircraft takeoffs. The two Concept H2 (rocket powered takeoff) launches estimated each year would be limited to eastward takeoffs to avoid crossing over County Road A013 to the west, if deemed necessary.

G.2.2 Alternative 1 – Horizontal Launch Vehicles Only

Although already low, risks to health and safety would be reduced because the vertical launch area would not be constructed, there would be no vertical launches or storage of vertical LV propellants, and traffic would be decreased because of fewer staff and visitors at Spaceport America and fewer attendees at the X Prize Cup events. Also, since most launch accident scenarios involve vertical launches, risks from launch accidents would be reduced to near zero.

G.2.3 Alternative 2 – Vertical Launch Vehicles Only

Although already low, risks to health and safety would be reduced because the airfield area and facilities would be smaller (less construction), airspace operations would be less, there would be no horizontal operations or storage of horizontal LV propellants, and traffic would be decreased because of fewer staff and visitors at Spaceport America and fewer attendees at the X Prize Cup events.

G.2.4 No Action Alternative

Under this alternative, Spaceport America would not be developed and there would be no risks associated with the Project to either workers or the public. The area would continue, however, to be exposed to risks from WSMR launch operations.

G.3 Cumulative Impacts

Persons working at Spaceport America would follow all OSHA, the FAA, NASA, DOT, and State applicable regulations and guidelines. In addition, Spaceport America operating procedures would be developed that govern how the facility would be operated to ensure public safety and safety of property according to the FAA mandates. No cumulative health and safety impacts are expected from the Proposed Action.

G.4 Mitigation Measures

Hazards to visitors that could result from launches, airspace operations, and X Prize Cup event activities such as static rocket firings would be minimized by strict safety and distance requirements.

REFERENCES CITED

Roland, H. E., and B. Moriarty. 1983. System Safety and Engineering Management, Wiley-Interscience Publications, John Wiley & Sons, New York, 1983.

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APPENDIX H
TRAFFIC AND TRANSPORTATION

H.1 Affected Environment

H.1.1 Definition and Description

Transportation as a resource relates to the manner in which goods, equipment, and people move to and from an area of interest. Transportation would include all anticipated means such as transportation via vehicles on roads and highways, rail transportation, and airplane transportation. Traffic refers to the number of vehicles, trains, and airplanes utilizing the roads and highways, rail lines, and airspace and take-off/landing facilities.

H.1.2 Regulatory Setting

The Department of Transportation regulates transport of hazardous materials in 49 CFR Parts 171-179; however, there are no regulations affecting traffic other than local and State ordinances restricting speed and other vehicle operation parameters.

H.1.3 Existing Conditions

H.1.3.1 Region of Influence

The proposed spaceport would be located in south-central New Mexico in Sierra County about 45 miles north of Las Cruces and 30 miles southeast of Truth or Consequences. Interstate 25 traverses north-south, passing through Truth or Consequences and ending in Las Cruces. Interstate 10 lies south of the proposed site and, from the western side of New Mexico, passes through Lordsburg and Deming to Las Cruces and then turns south to El Paso, Texas. State roads in the area are to the west of Interstate 25 and State Road 51, which lies to the east of Interstate 25 and connects Engle, north of the proposed spaceport, to Interstate 25. Exhibits 2-1 and 2-2 show the counties, cities, towns, and roadways in the vicinity of the proposed Spaceport America. Exhibit H-1 provides the latest available traffic counts for these roads.

Exhibit 2-2 shows the roads in the nearby vicinity of the proposed spaceport. In the proposed spaceport area, the roads are unpaved, and the current vehicular traffic is low. The main road consists of a series of connecting Doña Ana County roads in the south (E070, E071, and E072) and Sierra County Road A013 in the north. This gravel-based and dirt north/south road system connects I-25 at the south to Engle at the north. Sierra County Road A013 is classified as a rural minor arterial road. Traffic counts are not available for this road; however, daily traffic on the road is primarily from persons traveling to and from five residences along the road, and is estimated at 20 vehicles daily (Dustin, 2007; Spalding, 2007).

As discussed in Section 2.1.2.5, the New Mexico Department of Transportation (NMDOT) has plans to improve this roadway. In the immediate future, a section of County Road A013 from its intersection with County Road A039 (the Spaceport America entrance road) northward would be chip-sealed and drainage improvements installed. The NMDOT plans to pave the road and install shoulders from Engle on the north to Rincon at Interstate 25 on the south. The NMDOT received funding for paving and associated improvements from the New Mexico legislature that calls for the completion of the Project by the end of 2010 (NM, 2007).

Exhibit H-1. Average Daily Traffic for Roads in the Vicinity of the Proposed Spaceport America

County	Roadway	2004 Annual Average Daily Traffic
Doña Ana	Interstate 25 just north of Las Cruces	6,970
Doña Ana	Interstate 10 just west of Las Cruces	17,586
Luna	State Road 26 nearly at the Doña Ana County line	2,208
Sierra	Interstate 25 just south of Truth or Consequences	7,459
Sierra	State Road 27	80
Sierra	State Road 51 between Engle and Truth or Consequences	198
Sierra	State Road 52	481
Sierra	State Road 142	138
Sierra	State Road 152	561

Sources: NMDOT (2007a, b, and c)

The Burlington Northern Santa Fe railroad main line parallels Sierra County Road A013 through most of the county (see Exhibit 2-2) and is approximately 1.6 km (2.5 miles) west of the proposed spaceport. Train stations exist at Doña Ana and Las Cruces.

Commercial international airports are located at Las Cruces and El Paso and a regional airport is located to the east near Alamogordo, the Alamogordo-White Sands Regional Airport.

H.1.3.2 Spaceport America Site

All of the roads at the proposed site are unpaved. County Road A039 connects County Road A013 to the spaceport site. The spaceport site is crossed by a portion of County Road A021 and existing ranch roads.

The airspace around and above the proposed Spaceport America is within WSMR-restricted airspace that is normally closed to general and commercial aviation. Operations in WSMR-restricted airspace would be subject to applicable laws, regulations, policies, and procedures.

H.2 Environmental Consequences

Construction of the proposed spaceport and its subsequent operation would increase traffic in the area. Impacts from increased traffic include air emissions from vehicle exhaust, noise, traffic congestion, road deterioration, traffic accidents, and exposure to hazardous materials following accidents. Methods for evaluating the impacts of vehicle exhaust are applicable to areas with population densities of greater than 3,300 persons per square mile The proposed Spaceport

America site is a sparsely populated rural area; the nearest urban area in the vicinity (Las Cruces) has a population density of 52 persons per square mile (USCB, 2007).

The Proposed Action includes improvement of existing County Road A039 and construction of roads on-site. County Road A039, which connects to County Road A013 and provides access to Spaceport America Project site, would be widened and paved. A primary road and a network of secondary roads would be constructed on-site. Roads would either be paved or gravel, and all would be capable of supporting heavy truck traffic. Road construction would be completed during Phase 2 of construction. Exhibits 2-2 and 2-15 show the existing off-site roads and the planned on-site roads.

H.2.1 Proposed Action

H.2.1.1 Construction

The roads in the vicinity of the proposed spaceport would be used by commuting workers and for delivery by truck of construction materials and equipment. Exhibit H-2 shows estimated traffic levels along this road system for construction based on the peak number of construction workers (see Section 4.10) and delivery of materials and equipment. Traffic was estimated based on the assumption that workers would carpool (two persons per vehicle) and vanpool. This assumption is based on experience at a similar remote construction site in the region.

Exhibit H-2. Estimated Traffic Levels (both directions) attributable to Spaceport America based on peak employment levels

	Traffic Level (vehicles/hour)							
	Phase 1 Construction		Phase 2 Construction		Operations		X Prize Cup	
Vehicle Type	Peak	Off-peak	Peak	Off-peak	Peak	Off-peak	Peak	Off-peak
Automobile	168	16	27	4	7	3	5	3
Van or Bus	12	0	5	0	6	3	211	200
Medium Truck	2	2	1	2	1	1	16	7
Heavy Truck	9	6	2	2	1	1	1	3
Water Truck[a]	1	2	1	0	0	1	1	2

Source: Spalding and Gutman, 2008

Peak hours 7 to 8 am, 5 to 6 pm; off-peak hours, 8 am to 5 pm

[a] If wells are not installed, but water is trucked in 4,000-gallon tank trucks.

An estimated total of 309 vehicles per day would travel to and from Spaceport America during peak Phase 1 construction. All of this traffic would use County Road A013. It was assumed that 70 percent of the construction workforce would commute from the north and the remainder from the south. This is consistent with the residencies of the workers that were used in the socioeconomic analysis (see Sections 3.10 and 4.10). Concrete trucks were assumed to originate in Truth or Consequences, thus they would be coming from the north. It is assumed that water

trucks would be coming from the well near Rincon, thus they would be coming from the south. Other deliveries were assumed to originate in equal proportions from the north and the south.

Roadway traffic is classified by the ability of drivers to maneuver, and the maintenance of the traffic flow. Movement on roads with a Level of Service (LOS) A is described as free-flowing at or above the posted speed limit. LOS B may limit lane changes, but does not reduce speed. LOS C and D are progressively more congested. LOS E provides marginal service, and usually occurs on roads servicing traffic beyond their design capacity. Traffic flow is irregular, speed varies rapidly, but the speed limit is rarely reached. The Highway Capacity Manual published by the American Association of State Highway and Transportation Officials indicates that a paved rural roadway at the C to D level of service would have a design capacity of 1,000 to 1,200 vehicles per lane per hour average (CADOT, 2001). This design capacity is not only for a paved road, it also would not account for other less optimum conditions such as narrow crossings. This design capacity indicates that the capacity of County Road A013 would be less, but not how much less. The peak hour traffic per lane would be approximately 134 vehicles or 13 percent of the lower range of design capacity of a paved road in good condition. NMDOT plans to complete paving the road and installing shoulders by the end of 2010.

The increased traffic would increase risk of accidents. NMDOT crash information was used to calculate crashes, injuries, and fatalities. The number of accidents that would be attributed to Spaceport America construction traffic was estimated for vehicle traffic of 3.17 million miles per year based on average traffic levels per phase of construction with the vehicles originating in Truth or Consequences or Las Cruces as discussed above for 260 working days per year. Using the accident rates and this mileage, the number of crashes, injuries, and fatalities were estimated and are presented in Exhibit H-3.

Exhibit H-3. Traffic Accident Rates and Estimated Increase in Traffic Accidents Based on Average Traffic Levels

Statistic	Rate per 100 Million Vehicle Miles[1]	Increase in Accident Statistics Per Year			
		Phase 1 Construction	Phase 2 Construction	Operations	X Prize Cup
Fatalities	2.04	0.06	0.02	0.041	0.008
Injured persons	101	3.18	1.06	2.00	0.414
Crashes	205	6.49	2.17	4.08	0.844

[1] Source: NMDOT, 2006

Hazardous materials would be transported to Spaceport America during construction. The materials include fuel for the construction equipment, compressed gases used in construction, and paints and epoxies. All hazardous materials transport would meet DOT Hazardous Materials Regulations, 49 CFR Parts 171-173. The shipments would be in DOT-approved packages and containers and meet the DOT requirements including packaging design, marking, labeling, and placarding for shipment over public roadways. As further detailed below in the operations discussion, the transportation of these materials poses a very small risk to the public and workers during transportation based on DOT statistic of accidents involving hazardous materials.

H.2.1.2 Operations

Section 4.10 indicates that peak direct operational employment at Spaceport America would be 100 workers in 2013. During operations, NMSA plans to encourage or require workers, passengers, and guests to access Spaceport America in vans or buses. Therefore, it was assumed that 25 percent of the workforce would commute in vehicles carrying only the driver and that the remainder would commute in 15-passenger vans. The estimated number of vehicles per hour is presented in Exhibit H-2. This yields a total of 51 vehicles per day traveling to and from Spaceport America. All of this traffic would use County Road A013, with 50 percent of the traffic coming from the north and 50 percent from the south. The traffic level for the south bound lane of County Road A013 during the peak morning hour is estimated at 8 vehicles and the same for the north bound lane during the peak afternoon hour.

The increased traffic could lead to increased traffic accidents and associated injuries and fatalities. Exhibit H-3 presents the estimated fatalities, injuries, and crashes based on the 2005 New Mexico traffic statistics and 1.99 million total miles driven by vehicles coming to and from Spaceport America.

X Prize Cup. It was assumed that by 2013 approximately 20,000 visitors per day would attend this event. The attendees would be bused to Spaceport America from a central parking location near the city of Hatch or the city of Truth or Consequences. The buses would access Spaceport America via County Road A013 from the north or south. The maximum number of roundtrips is estimated at 400 with an hourly maximum of 200 busses traveling to the spaceport (DMJM/AECOM , 2007). For annual X Prize Cup events, a larger workforce would be required and is estimated to be 350 (Spalding and Gutman, 2008). It was assumed that approximately 60% of workers would commute in 50-passenger vehicles (4 buses), 30% in 15-passenger vehicles (7 vans), and the remainder in vehicles would carry only the driver (35 automobiles). The peak hour traffic on A013 would be 217 vehicles or 23 percent of the design capacity. (Design capacity is discussed in Section H.2.1.1).

The increased traffic on X Prize Cup days would increase the risk of accidents. The buses would either arrive at the site from the north or south originating in either the city of Hatch or the city of Truth or Consequences. The maximum one-way mileage is 66 miles (DMJM/AECOM, 2007). Assuming a seven-day event with the maximum number of buses coming to the site using the route with the most miles along with the larger workforce and delivery vehicles originating half in Truth or Consequences and half in Las Cruces, the total estimated mileage would be 660,000 miles, which could potentially lead to 1 crash, 0.4 injuries, and 0.008 fatalities (Exhibit H-3).

Trucks would be needed during operation of Spaceport America to transport hazardous materials. During operations, these hazardous substances would include jet fuel, aviation gasoline, and various rocket propellants as discussed in Section 2.1.3.2. All hazardous materials transport would meet U.S. DOT Hazardous Materials Regulations, 49 CFR Parts 171-173. The shipments would be in DOT-approved packages and containers and meet the DOT requirements including packaging design, marking, labeling, and placarding for shipment over public roadways. Incompatible rocket propellants (i.e., an oxidizer and fuel) would not be shipped together in the same or nearby trucks traveling in the same caravan. Solid propellant and hybrid rocket fuel (HTPB or rubber) would be shipped pre-assembled in their rocket motor casings, which would provide additional shielding in case of fire.

Shipment of hazardous materials is very commonplace. The DOT estimates that there are more than 800,000 hazardous materials shipments (by all modes of transportation) per day in the U.S. (DOT, 1998). From 1997 through 2006, the number of accidents on the nation's roadways that involved hazardous materials ranged from 267 to 357 per year. (DOT, 2007) Based on DOT statistics, the risk of any one shipment of hazardous material being involved in a vehicular accident is about 1 out of 950,000.

H.2.1.3 Summary of Impacts from the Proposed Action

The congestion on County Road A013 is estimated to peak during Phase 1 construction with 134 vehicles per lane during the peak hour of commuting. This level of traffic on County Road A013 would lead to slow-downs and likely short-term backed-up traffic close to the Spaceport America entrance. As indicated in Section H.1, traffic counts are not available for County Road A013, but the number of vehicles is estimated to be 20 per day. The number of Spaceport American-related vehicles traveling the road during Phase 1 construction, when the road improvements would not be complete, is estimated at 309 vehicles. As described in Section H.1, County Road A013 is unpaved and narrow at several points. County Road A013 would be expected to experience some deterioration until it has been improved by the NMDOT. As stated in Section H.1, the NMDOT plans to pave the road from Engle on the north to Rincon on the south by the end of 2010. Traffic congestion would increase while NMDOT is working on the road. Traffic would be less during Phase 2 construction and during operations except during X Prize Cup. However, traffic congestion during the X Prize would be minimized by the improved road and the use of buses to transport attendees and the majority of the workers.

The primary and secondary roads on-site and the improved County Road A039 would allow the roads to support Spaceport America traffic and deterioration would be normal wear and tear.

A member of the general public driving the roads to and from Spaceport America, but for reasons other than going to or from the spaceport, would be exposed to a higher risk of a traffic accident because there would be more traffic than currently exists. However, the estimated number of accidents is low. The transportation of hazardous materials also carries risk; however, through the application of DOT requirements, the risk of accidents involving hazardous materials is very low.

H.2.2 Alternative 1 – Horizontal Launch Vehicles Only

Under this alternative the impacts to traffic and transportation would be less than the Proposed Action because the vertical launch area would not be constructed. The number of construction workers would decrease and there would be fewer staff during operations. The vehicles delivering supplies during construction and operations would also decrease. The quantity of hazardous materials shipped to Spaceport America would also decrease. Moreover, fewer attendees at the X Prize Cup would also likely be the result of this alternative.

H.2.3 Alternative 2 – Vertical Launch Vehicles Only

Under this alternative the impacts to traffic and transportation would be less than the Proposed Action because the airfield area and facilities would be smaller (less construction), operations staff would be fewer and there would be fewer operations activities requiring supplies including horizontal vehicle propellants. Also, fewer attendees at the X Prize Cup would be expected.

H.2.4 No Action Alternative

In this alternative, Spaceport America would not be constructed or operated and the existing traffic and transportation conditions would continue.

H.3 Cumulative Impacts

As discussed in above, Spaceport America would be accessed by Sierra County Road A013, which is currently a gravel-based road that is used on a daily basis by five families with residences along the road. The road is used occasionally by railroad and county employees. An estimated average 20 vehicles use County Road A013 on a daily basis (Dustin, 2007; Spalding, 2007). The estimated increase in the number of vehicles that would travel County Road A013 north of the Spaceport America entrance during peak construction and peak operations is 309 and 51, respectively. Peak hourly traffic would occur during commuting times and the number of vehicles on County Road A013 north of Spaceport America entrance is estimated at 134 during peak construction. The NMDOT has existing plans to pave and install shoulders on County Road A013 (see Section 2.1.2.5) and funding is available for this Project (NM, 2007). Spaceport America traffic would be a large increase over the existing traffic and the current users of the road would experience increased traffic and congestion during the peak hour. The road work would further lead to traffic congestion on a temporary basis.

H.4 Mitigation

The greatest measure to mitigate the increased traffic that would be a consequence of the construction and operation of Spaceport America would be completion of the NMDOT's plan to pave and install shoulders on Sierra County Road A013, the road that provides access to the site from Interstate 25 and the city of Truth of Consequences. To mitigate traffic congestion prior to completion of the roadwork, NMSA would implement mitigation measures such as staggered shifts and vanpools as needed.

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APPENDIX I
CALCULATIONS OF EMISSION LOAD FROM CONSTRUCTION AND OTHER NON-LAUNCH ACTIVITIES

This appendix presents the methods, assumptions, and inputs used to calculate emissions of substances into the atmosphere from construction and similar non-launch activities, and is based on Spalding, 2008. These sources are combined because they are analyzed by common emission factor methods for both construction and operational activities. The non-launch activities include all roadway and non-road vehicle use, industrial engines, surface coatings, and propane combustion. All of these activities would occur during construction and operation. Fugitive dust from vehicles and construction activities are included in this section.

There are three types of emissions that affect the ambient air quality, which is regulated by the Environmental Protection Agency (EPA) in the air below 3,000 feet above ground level. These types are:

- Fugitive dust: particulate matter produced indirectly by disturbance of the ground
- Criteria pollutants: ambient air pollutants whose levels are regulated by EPA and State codes; these include SO2, CO, NO2, ozone precursors (NO2 and VOC), PM, and Pb.
- Air Toxics, or Hazardous Air Pollutants (HAPs), that may be injurious to human health above certain concentrations

This appendix explains the methodology used to estimate emissions of fugitive dust, other criteria pollutants, HAPs, and CO2 from Spaceport America construction and similar non-launch activities.

I.1 Emission Factor Methods Used

Emission factors are applied to estimate air emissions. An emission factor is defined in the introduction to the EPA AP-42 document (EPA, 1995) as follows.

> An emission factor is a representative value that attempts to relate the quantity of a pollutant released to the atmosphere with an activity associated with the release of that pollutant. These factors are usually expressed as the weight of pollutant divided by a unit weight, volume, distance, or duration of the activity emitting the pollutant (e.g., kilograms of particulate emitted per megagram of coal burned). Such factors facilitate estimation of emissions from various sources of air pollution. In most cases, these factors are simply averages of all available data of acceptable quality, and are generally assumed to be representative of long-term averages for all facilities in the source category (i.e., a population average).

Emission factors for a large number of activities are provided by the EPA through two methods. Non-fugitive dust emission factors for roadway vehicles (those that travel on paved or unpaved roads or surfaces) and non-road vehicles (including construction engines and equipment) are generated by software models due to the complexity of the inputs, the databases of vehicle inventories by State, and the huge number of emission factors possible. These factors include engine and exhaust emissions as well as other sources, such as release of fuel vapors during fueling and PM from brakes. All other emission factors are provided in the EPA document "AP-42, Fifth Edition, Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources" (EPA, 1995), hereafter referred to simply as "AP-42".

Potential construction and related non-launch emission sources at the proposed Spaceport America were identified. These emission sources and the methods that provided the appropriate emission factors and equations are shown in Exhibit I-1.

Exhibit I-1. Construction and Similar Non-Launch Emission Sources and Emission Factor Methods Used

Emission Source	Emission Factor Method
Particulate Matter from Fugitive Dust	
Unpaved public roads	AP-42 13.2.2
Paved public roads	AP-42 13.2.1
Pile drop operations	AP-42 13.2.4
Heavy construction operations	AP-42 13.2.3, 11.9
Concrete batching	AP-42 11.12 (also includes Pb emissions)
Crushed stone processing and construction sand & gravel processing	AP-42 11.19.2
Other Criteria Pollutants	
Gasoline and diesel industrial engines	AP-42 3.3
Nonindustrial surface coatings	AP-42 4.2.1 and related document EIIP[1], Vol. 3, Chap. 3, Architectural Surface Coating (Nov. 1995)
Asphalt paving operations[2]	AP-42 4.5 and related document EIIP, Vol. 3, Chap. 17 Asphalt Paving (Jan. 2001)
Liquefied petroleum gas combustion (propane only)	AP-42 1.5
Roadway vehicles	Mobile 6.2 model
Non-road vehicles	NONROAD model; Core Model Ver. 2005a, Feb 2006; NONROAD Reporting Utility, Version 2005c

[1] Emission Inventory Improvement Program Document Series; available at the EPA web site.
[2] Asphalt paving emissions are not included in this analysis; see text below for discussion.

I.2 Use of NMIM and the NCD

The National Mobile Inventory Model (NMIM) was used in these analyses as a source of data and methodologies. The NMIM home page states the following about this model:

> The National Mobile Inventory Model (NMIM) is a free, desktop computer application developed by EPA to help you develop estimates of current and future emission inventories for on-road motor vehicles and nonroad equipment. NMIM uses current versions of MOBILE6 and NONROAD to calculate emission inventories, based on multiple input scenarios that you enter into the system. You can use NMIM to calculate national, individual State or county inventories.

NMIM is designed to produce county- and higher-level inventories, but is not appropriate for project-level emission estimates, such as Spaceport America. Certain methodologies related to

estimating hazardous air pollutant (HAP) emissions, however, were used. Also, a number of new HAP-related inputs to MOBILE6.2 and the NONROAD model were obtained from the NMIM County Database (NCD), and are referenced below as NCD values.

The NCD provides values by month. Except where noted, mean annual values were used. In all cases, the NCD values for Sierra and Doña Ana Counties are identical and do not vary through the years 2009-2013.

I.3 Asphalt Paving Emissions

This analysis does not include asphalt plant or paving operations for County Road A013 between Engle and the Upham exit on I-25. New Mexico Department of Transportation (NMDOT) will prepare an EIS for these proposed road improvements. These road improvements are included in the analysis of cumulative impacts in this EIS in Chapter 5.

Hot mix asphalt (HMA) would be used to surface the entrance road, runway, taxiways, and apron. There are no significant emissions of pollutants during paving operations with HMA; AP-42 4.5 includes emission factors only for cutback and emulsified asphalts. The emissions associated with HMA are generated at the HMA plant. A temporary HMA plant would be constructed and used on-site, probably near the runway. Emissions from the temporary HMA plant are discussed here.

I.4 Method Assumptions and Options

Emissions under the Proposed Action were considered to be generated by five activities. These activities and their durations and dates are given in the list below. The level of vertical launch area and airfield area operational activities would be that in year 2013, the year of maximum levels of operations in the five-year period of this EIS. The X Prize Cup event additional activities would occur over seven days with the maximum number of visitors (20,000 per day) estimated for year 2013.

- Construction, Phase 1, 17 months, January 2009 through May 2010
- Construction, Phase 2, 12 months, June 2010 through May 2011
- Vertical launch area operations, one year (2013)
- Airfield area operations, one year (2013)
- X Prize Cup operations (only additional activities), seven days (2013)

I.4.1 Use of Default Values for Local Data

Some AP-42 emission factor equations incorporate local data. Examples include surface material silt and moisture content (for fugitive dust), material moisture content, and sulfur content of propane. Values for these data that were most representative of the proposed Spaceport America region were selected from data and tables in the AP-42 documents. In some cases, single default values are provided in AP-42, which were used. In general, these default values are conservative, i.e., result in higher levels of emissions. When a range of values was provided, a conservative value was selected. For example, for the sulfur content of propane the value of 15 grams per 100 standard cubic feet (scf) was used, which is the maximum value for commercial propane.

I.4.2 Roadway and Non-Road Vehicles

Emission factors for roadway vehicles were generated by the Mobile 6.2 model (EPA, 2004). Five Mobile "scenarios" were created, one for each calendar year between years 2009 and 2013. Emission factors for all criteria pollutants except Pb (no emissions) and PM2.5 were generated. PM2.5 was not specified because Mobile 6.2 does not output both PM10 and PM2.5 emissions factors in a scenario. PM10 emissions factors were used for PM2.5, which results in a conservative overestimate of PM2.5 emissions. The following inputs were used in each yearly scenario:

- Maximum Reid vapor pressure (RVP, a measure of gasoline volatility) for gasoline: 9 (maximum RVP in the CAA Amendments)
- Diesel sulfur content: 43 parts per million (ppm) for year 2009 through May, 2010, and 11 ppm after that date, per the guidance in Section 5.5.3 of EPA (2004);
- Altitude: Sierra County is designated as high altitude per 40 CFR 86.091-30 paragraphs (a)(5) (ii) and (iv));
- Roadway classification: all vehicle miles traveled (VMT) set to arterial/collector type roadway classification so that VMT was not distributed to freeways, ramps, and local urban roads; the arterial/collector Driving Cycles are most similar to Spaceport America roads according to guidance in Section 4.2 of EPA (2004);
- Average speed: 40 mph for 2009 and 2010, on the assumption that County Road A013 will be paved in 2010; thereafter 55 mph is used, assuming the speed limit (55) is the same as State Highway 51;
- Average daily minimum and maximum temperatures: 5.6/23.6 °C (42.0/74.5 °F)
- AIR TOXICS command so model outputs the "six primary air toxic pollutants" (the use of the AIR TOXICS command is discussed in Section I.5.1)

Emission factors from all five scenario years were not used. Construction Phase 1 used factors from the 2009 scenario and Phase 2 from the 2010 scenario. The operational activities used factors from the 2012 scenario. In general, emission factor values decrease for later years because of cleaner fuels and projected changes in technology to reduce emissions. Therefore, the use of 2012 is more conservative than using 2013.

Separate emissions for diesel transit buses and class 8a heavy duty diesel trucks (33,001-60,000 lbs gross weight) are used. Buses would be used for visitors and staff. The heavy duty truck category includes water hauling trucks, concrete trucks, aggregate hauling trucks, and diesel delivery trucks in this weight class. Separate emissions for these three vehicle categories (mixed, bus, and heavy truck) were calculated.

It was verified that "composite" hydrocarbon (HC) (i.e., VOC), CO, and NOx emission factors used in the MOBILE6.2 spreadsheet output are the sum of total exhaust plus evaporative emission factors, which is the desired result. Evaporative emission factors include emissions due to refueling, although refueling of roadway vehicles would not occur at the Spaceport. Refueling emission factors cannot be subtracted from the composite VOC emission factors, however, because that factor for "all vehicles" in the spreadsheet is "N/A" and for diesel busses and trucks is zero. Examination of the spreadsheet evaporative emission factors for "all vehicles" does

indicate that there is a non-zero refueling emission factor being included. Thus, VOC emissions for "all vehicles" are slightly overestimated due to the inclusion of evaporative refueling emissions.

Emission factors for non-road vehicles were generated by the NONROAD model (EPA, 2007) for the years 2009 (used for Phase 1 construction) and 2010 (used for Phase 2 construction). Emission factors were generated for Sierra and Doña Ana Counties for all diesel and 4-stroke construction and mining equipment. The same max/min temperatures were used as in the Mobile 6.2 model. The following changes, which are based on NCD data, were inputs to the model. Default values for all other inputs were used.

- Reid vapor pressure of gasoline: 9.75 psi
- Gas sulfur: 0.003% (30 ppm)
- Diesel sulfur: 0.0043% (43 ppm) for 2009; 0.00243% (24.3 ppm) for 2009
- Oxygen Weight percent: 0.6136%

I.4.3 Hot Mix Asphalt Plant

Hot mix asphalt plant emissions were calculated by the methods in AP-42, Section 11.1. All emission sources were included. These sources are:

- Plant operations (primarily dryer and drum operations)
- Load-out and yard emissions (emissions from loading trucks with asphalt and from the trucks while they are in the plant yard)
- Silo filling and asphalt storage tank emissions (silo holds HMA produced but not directly loaded into trucks)

There are several variables that affect levels of emissions. The following values were used:

- Plant type: drum mix
- Dryer fuel: No. 2 fuel oil
- PM control process is fabric filter
- Asphalt volatility: -0.5
- HMA mix temperature: 325 °F

The appropriate methods from 11.1 were used for a drum mix HMA plant (EPA 1995). Plant emission factors were from AP-42 tables 11.1-4, 11.1-7, 11.1-8, 11.1-10, 11.1-12. Other emission factors were from tables 11.1-14, 11.1-15, 11.1-16.

I.4.4 Propane Combustion

Propane would be used in both the construction and operation of Spaceport America. During construction it would be used in portable heaters and asphalt laydown machines. Propane would be used during operations for space heating and hot water. The following assumptions and guidance were used in preparing the space heating requirements for propane:

- It was assumed that all heated areas, walls, and ceiling will be insulated to a value of R13.

- Floors are not considered in the Uniform Building Code unless they are positive heat sources (not assumed here).
- Although the Terminal and Hangar Facility may use Leadership in Energy and Environmental Design (LEED) technologies, such energy-saving measures were not assumed here. Geothermal technologies, such as circulating air or water heated in buried pipes, was not considered as values are hard to assign and this technology is not in the guidance documents.
- Heat from human bodies, electric lights, electronics, and electric motors were not considered as the number of sources is unknown.
- Earth banks were not considered because all outside walls are assumed to be insulated.

As a result of the above assumptions, the propane estimates for space heating are very conservative.

For the estimation of propane use for hot water it was assumed that heaters would run on a 30% duty cycle. There would be four water heaters in the Terminal and Hangar Facility, two in the vertical area Launch Control building, and one in each of the rest of the buildings.

I.4.5 Fugitive Dust

Construction site PM emissions can be reduced significantly by various control measures, as described in AP-42 section 13.2.3.4. These measures include:

- Wet suppression of disturbed ground and travel routes,
- Wind speed reduction,
- Chemical stabilization,
- Covering of truck dirt and debris loads, and
- Paving, including early paving of permanent roads.

There are five types of activities where percent effectiveness of fugitive dust suppression is input. These are shown Exhibit I-2, along with the values used in this analysis.

The justifications for these levels of dust-suppression effectiveness are as follows:

All activities except paved public road traffic: An efficiency value of 74% was used for these activities for the following reasons. The "WRAP Fugitive Dust Handbook" (Countess Environmental, 2006), by the Western Regional Air Partnership (WRAP), addresses the estimation of uncontrolled fugitive dust emissions and emission reductions achieved by demonstrated control techniques for eight major fugitive dust source categories. A table in the Executive Summary provides "Fugitive Dust Control Measures Applicable for the WRAP Region." Published PM_{10} control efficiencies for construction/demolition and unpaved roads only using water suppression are in the range of 10-74%. The high end of this range was used for the Spaceport America analysis because water suppression is expected to be used at a high level, and other measures, such as limiting vehicle speed, covering truckloads, limiting work in high wind conditions, and use of chemical suppressants would provide additional control.

Exhibit I-2. Values Used for Overall Percent Fugitive Dust Suppression Effectiveness

	Construction		Operations		
Type of Activity	**Phase 1**	**Phase 2**	**Vertical**	**Horizontal**	**X Prize**
Unpaved public roads: commute and on-site traffic	74%	74%	74%	74%	74%
Unpaved public roads: on-site construction traffic	74%	74%	N/A	N/A	N/A
Paved public road traffic[1]	0%	0%	0%	0%	0%
Storage pile drop operations	74%	74%	N/A	N/A	N/A
Heavy construction operations	74%	74%	N/A	N/A	N/A

[1]Percent suppression effectiveness on dry days

Paved public road traffic: There would be no active dust suppression on paved roads. An input to the AP-42 13.2.1 (Fugitive Dust, Paved Roads) emission factor calculations is "P", the number of "wet" days with at least 0.01 inches of precipitation during the averaging period, which in this case is 365 days. A value of 41 "wet" days per year was used based on the following weather data from http://www.wrcc.dri.edu/htmlfiles/nm/nm.01.html; these data are "Monthly average number of days precipitation greater than or equal to 0.01 inches."

- Jornada Exp Range 1925-2004: 43 days
- Truth Or Consequences 1951-2004: 42 days
- Aleman Ranch 1948-2000: 41 days
- Elephant Butte Dam 1917-2004: 43 days

Other fugitive dust assumptions: For fugitive dust from crushed stone processing, and construction sand and gravel processing, AP-42 emission factors for controlled processes were used if available.

Fugitive dust emissions from wind erosion of exposed soil were not estimated. AP-42 section 13.2.5 (Industrial Wind Erosion) includes emission factor equations for these cases. These emissions depend on a number of complex and sometimes uncertain variables, such as wind gust speed, the roughness and erosion potential of the surface, and the number of disturbances per year. Furthermore, there are differences between the erosion characteristics of flat surfaces vs. piles. Even if emissions were estimated here, they would not be correct because dust suppression measures would greatly reduce wind erosion. As with direct construction activities, measures would be employed to reduce fugitive dust emissions to the maximum extent reasonable. Potential reduction measures include wet suppression, chemical stabilization, and wind speed reduction. Spaceport America construction would be planned to minimize areas of potential wind erosion, and to suppress the erosion where it may occur.

I.5 Methods for Estimating Hazardous Air Pollutant Emissions

HAP emissions were estimated for all categories of construction and similar non-launch activities in which HAPs are produced. The HAPs and the methods by which they are calculated are presented in this section. At the end of each subsection, the methods used to calculate the emissions of the individual HAP species are given.

I.5.1 Roadway Vehicles

The AIR TOXICS command was added to the MOBILE6.2 model so that it would output the "six primary air toxic pollutants" The "six primary air toxic pollutants" output by the AIR TOXICS command are:

- Benzene
- 1,3-Butadiene
- Formaldehyde
- Acetaldehyde
- Acrolein
- MTBE

Although another command is available to compute additional HAPS, it requires a separate input file to specify the HAPs and the ratios to use to estimate them from other MOBILE6.2 outputs. There are about 40 possible additional HAPs. EPA (2002) (technical description of the toxics module for MOBILE6.2), however, states the following:

> "The above compounds [referring to the six above], except for MTBE, dominate risk from mobile sources, based on results of the recent National-Scale Air Toxics Assessment. Benzene and MTBE are found in both exhaust and evaporative emissions; the others are constituents of exhaust only."

For the reasons cited in the EPA document, additional HAPs were not calculated using MOBILE6.2 nor for the NONROAD model (discussed in the next section).

The use of the AIR TOXICS command requires six types of additional inputs to MOBILE6.2. These inputs are various chemical properties of gasoline. Values for these inputs were obtained from the NCD. The average annual value for each input was determined. The final inputs to MOBILE6.2 are shown in Exhibit I-3. The MOBILE6.2 User's Guide provides the definitions for these inputs.

Method of Calculating Emissions of Individual HAP Species: The MOBILE6.2 spreadsheet output gives separate emission factors for each HAP species for each type of vehicle. Three vehicle types were used: "all vehicles" (a standard fleet mix), diesel urban buses, and class 8a heavy duty diesel trucks. These emission factors are also a function of year; the MOBILE6.2 output for four years (2009-2012) was used. For all three vehicle types there are a total 28 different HAP emission factors (including gasoline engine evaporative as well as exhaust emissions), which in turn differ among the four years. Given that the differences in emission factors between years are generally small, average emission factors over the four-year period were calculated for each vehicle type, except buses, which would be used only in operations and therefore emission factors for 2012 were used. Each emission factor's "fraction" of the total of

all emission factors for a vehicle type was multiplied by the total HAP emissions for that vehicle type to obtain the emission quantity for that HAP species for that vehicle type. This was done separately for each of the five activities (two construction phases and three operational activities).

Exhibit I-3. MOBILE6.2 Commands and Inputs Required for use of AIR TOXICS Command

Command Name	Description	Input Value(s)	
GAS AROMATIC%	Aromatic content (% volume)	27.6	
GAS OLEFIN%	Olefin content (% volume)	5.1	
GAS BENZENE%	Benzene content (% volume)	1.6	
E200	percentage of vapor produced at 200 °F	51.5	
E300	percentage of vapor produced at 300 °F	83.9	
OXYGENATE : MTBE	MTBE content (% volume) and market share	1.8	0.60
OXYGENATE : ETBE	ETBE content (% volume) and market share	0.0	0.00
OXYGENATE : ETOH	ETOH content (% volume) and market share	3.1	0.40
OXYGENATE : TAME	TAME content (% volume) and market share	0.0	0.00

I.5.2 Non-Road Vehicles and Industrial Engines

The NONROAD model calculated the same HAPs as output by MOBILE6.2 (except MTBE). Additional HAPs were not calculated from NONROAD output for the reasons cited in Section I.5.1. MTBE is one of the six primary HAPs, but MTBE emissions were not calculated for reasons given below.

The NMIM User's Guide (EPA, 2005) states the following with respect to which gas formulations it uses with NONROAD outputs.

> [For gaseous HAPS] NMIM uses the toxic to VOC ratios…. Separate ratios are used for evaporative and exhaust emissions for each of the following four categories of gasoline blends:
>
> - Baseline Gasoline. All cases that do not fall into categories 2-4 below. Ratios are in variables "ExhBaseGas" and "EvapBaseGas" in the SCCToxics table.
> - WO (Winter Oxygenate) Gasoline / Ethanol or ETBE - Used where the fuel contains ethanol which is greater than or equal to 5% by volume or ETBE greater than or equal to 5% by volume. Ratios are in variables "ExhEthGas" and "EvapEthGas" in the SCCToxics table.
> - WO (Winter Oxygenate) Gasoline / MTBE / TAME - Used where the fuel contains MTBE which is greater than or equal to 12% by volume or TAME greater than or equal to 13% by volume. Ratios are in variables "ExhMTBEGas" and "EvapMTBEGas" in the SCCToxics table.

- RFG/MTBE/TAME - Used where the fuel is RFG and where the fuel contains oxygenate greater than 5% by volume and where the fuel contains MTBE which is less than 12% by volume or TAME less than 13% by volume. Ratios are in variables "ExhRFGGas" and "EvapRFGGas" in the SCCToxics table.

Only baseline and ethanol gasoline blends were used in the new NONROAD analysis for the following reasons:

- The MTBE % volume does not exceed 12% in any month (highest value is 3% for 4 months, May-August). Therefore, gasoline category 3 above does not apply.
- The gasoline blends in category 4 in the counties in this study do not meet the criteria for this category. Also, the average annual oxygenate is not greater than 5%. Therefore, gasoline category 4 above does not apply.
- The ETOH % volume exceeds 5% for three months a year (7%). Therefore, gasoline category 2 toxic to VOC ratios were used for ¼ of a year and baseline category 1 gasoline ratios for ¾ of a year.

The use of baseline and ethanol gasoline blends results in no MTBE emissions from construction equipment. Of the 16 categories of construction equipment modeled, however, only three use gasoline (4-stroke) engines. These three categories (tampers/rammers, plate compactors, and concrete/industrial saws) would use extremely little fuel relative to the diesel heavy equipment; diesel fuel does not have MTBE added. Also, construction equipment gasoline usage would be insignificant compared to roadway vehicles, for which MTBE emissions are output by the MOBILE6.2 model. Therefore, this approach underestimates MTBE emissions very slightly.

The methodology used to estimate HAPs is that used in NMIM, i.e., emissions for the five HAPs (the six primary HAPs, not including MTBE) are calculated as ratios of the VOC emissions. These "toxic to VOC" ratios were extracted from the NCD for the 16 categories of construction equipment. The ratios for the 13 diesel equipment categories were the same, as were those for the three gasoline equipment categories. These ratios are shown in Exhibit I-4 for the three types of fuel (baseline gasoline, ETOH gasoline, and diesel). Gasoline emissions include both exhaust and evaporative. The ratios used for each fuel type are shown in the last row of the table; the gasoline ratios used are the sum of the exhaust and evaporative ratios.

Exhibit I-4. Toxic to VOC Ratios Used for HAP Emissions in Non-Road Vehicles

	Toxic to VOC Ratios				
HAP	**Base Gas Exhaust**	**Base Gas Evaporative**	**ETOH Gas Exhaust**	**ETOH Gas Evaporative**	**Diesel Exhaust**
1,3-Butadiene	0.0095212		0.0095212		0.0018616
Acrolein	0.0007		0.000693		0.00303165
Formaldehyde	0.011715		0.015933		0.118155
Benzene	0.052466	0.022	0.047219	0.01254	0.020344
Acetaldehyde	0.0041006		0.0082012		0.05308
Ratio Totals	0.0785	0.0220	0.0816	0.0125	0.1965
Ratios used	0.1005		0.0941		0.1965

Total HAP emissions for diesel equipment were estimated by the equation:

$$\textit{HAP emissions} = \textit{VOC emissions} \times 0.1965$$

As discussed above, gasoline category 2 (ethanol blend) toxic to VOC ratios were used for ¼ of a year and baseline gasoline ratios for ¾ of a year. Total HAP emissions for gasoline equipment were estimated by the equation:

$$\textit{HAP emissions} = (0.75 \times \textit{VOC emissions} \times 0.1005) + (0.25 \times \textit{VOC emissions} \times 0.0941)$$

Method of Calculating Emissions of Individual HAP Species: Total HAP emissions were calculated by using the toxic to VOC ratios as discussed above. Although there are both diesel and gasoline vehicles in the construction estimates, HAP emissions from gasoline vehicles represent only 0.2% of the total for construction Phase 1 and 0.6% of the total for Phase 2. Given these very small proportions of HAPs from gasoline vehicles, the total HAP emissions were considered to all be from diesel vehicles. The total HAP emissions were multiplied by the fraction each HAP species represented of this total (HAP ratio / total ratio) to obtain the emission quantities for each of the five HAP species. This was done separately for each construction phase.

Emissions of each of the five HAP species were calculated in the same manner as those for Non-Road vehicles with the following differences. As all industrial engines in the construction estimates were gasoline-powered, the toxic to VOC ratios for base and ETOH gasolines were used to determine the fraction that each HAP represented of the total HAP emissions. These ratios were apportioned as discussed in the previous section, i.e., assuming base gasoline is used 75% of the time and ETOH gasoline 25%. The resulting fraction of emissions for each HAP was multiplied by the total HAP emissions to obtain the emissions for each HAP. As with gasoline roadway vehicles, both exhaust and evaporative emissions were included. This was done separately for each construction phase.

I.5.3 Non-Industrial Surface Coatings

HAP emissions for Non-Industrial Surface Coatings were calculated by methods provided in AP-42, Section 4.2.1, Related document Architectural Surface Coating (Nov. 1995), pages 5-6 through 5-9. Total HAP emissions are calculated by multiplying total VOC emissions by the total weight fraction for all HAP species.

Exhibit I-5 and Exhibit I-6 show the weight fractions for water- and solvent-based coatings. These values were taken from Tables 5-3 and 5-4 of the above document. Species include only hazardous air pollutants listed in CAA Amendments of 1990, which are indicated in the weight fraction tables of the above document. VOC emissions are multiplied by the total weight fraction for each coating type.

Method of Calculating Emissions of Individual HAP Species: The VOC weight fractions of each HAP species are given in the above two tables. To obtain the emissions of each HAP for a type of coating (water- or solvent-based), the total emissions were multiplied by the fraction that each HAP represented of the total weight fraction for that type of coating. This was done separately for each construction phase.

Exhibit I-5. VOC HAP Species Profile for Water-Based Architectural Surface Coating

HAP	Weight Fraction
Benzene	0.0030
Dichloromethane (methylene chloride)	0.0550
Ethyl chloride	0.0060
Ethylene glycol	0.0050
TOTAL	0.0690

Exhibit I-6. VOC HAP Species Profile for Solvent-Based Architectural Surface Coating

HAP	Weight Fraction
Dimethyl formamide	0.0050
Ethylbenzene	0.0430
Ethylene glycol	0.0060
Isomers of xylene	0.0260
Methyl ethyl ketone	0.0560
Methyl isobutyl ketone	0.0060
Toluene	0.0520
TOTAL	0.1940

I.5.4 Hot Mix Asphalt Plant

In AP-42, Section 11.1, HAP emissions are estimated by the use of numerous emission factors and speciation profiles (amount of a HAP species as a percentage of organic PM or TOC) based on the tons of HMA produced by the plant. All of the HAP species in AP-42 11.1 are included in the HMA plant emissions in this analysis. The number of these HAPs is large and depends on the type of plant operation being analyzed. The information in Exhibit I-7 shows which tables in AP-42, Section 11.1were used for each type of HAP species estimated in this analysis. The relevant parts of these tables for plant emissions are those for drum mix HMA plants using No. 2 fuel oil-fired dryer with fabric filter.

Method of Calculating Emissions of Individual HAP Species: There are 74 HAP species included in AP-42, Section 11.1 for HMA plants of the type analyzed here. The relative amounts of each species are given in the AP-42 Tables listed in Exhibit I-7 (except Table 11.1-14) either as emission factors or percentages of PM or TOC. These amounts were converted to fractions that were multiplied by total HAPs emissions to yield emissions for each species. This was done separately for the three emission sources (column 1 in Exhibit I-7) and for the types of HAPs emitted by each source. For example, for the source "Plant Load-Out and Yard Emissions" both organic PM-based HAPs and volatile organic-based HAPs were calculated. This was done only for construction Phase 1, as the HMA plant would not be operated after that Phase. For more information on the HAP species included here see AP-42, Section 11.1.

Exhibit I-7. Sources of Data for Hot Mix Asphalt Plant HAP Emissions

Source of Emissions	Tables Used	Information in Tables
Plant Emissions (not including next two sources)	11.1-10	All Non-PAH[1] and PAH HAP emission factors
	11.1-12	All metal HAPs[2] emission factors
Plant Load-Out and Yard Emissions	11.1-14	Organic PM and TOC emission factors
	11.1-15	All HAPs as percentages of organic PM
	11.1-16	All volatile organic HAPs as percentages of TOC
Silo Filling and Asphalt Storage Tank Emissions	11.1-14	Organic PM and TOC emission factors
	11.1-15	All HAPs as percentages of organic PM
	11.1-16	All volatile organic HAPs as percentages of TOC

1Polynuclear aromatic hydrocarbon (PAH)
2Metals in Table 11.1-12 identified as HAPs as defined in the 1990 CAAA

I.6 Emission Factor Equation Inputs

The AP-42 emission factor documents in Exhibit I-1 were studied and all relevant emission factor equations, constants, and other computational elements were coded into an Excel spreadsheet to calculate emissions. These methods incorporated a total of 56 inputs. A worksheet was created in which these inputs could be entered. There were six identical worksheets, one for each of the three phases of construction and three for operations (vertical launch area, airfield area, and X Prize Cup event) at the proposed Spaceport America. A blank worksheet is shown in Exhibit I-8. The types of inputs are shown in the right column, with the value to be entered in the left column.

The values of all these inputs are not included here. They were determined by careful evaluation of the Proposed Action. The most important inputs (those that resulted in higher emission estimates for fugitive dust, the other criteria pollutants, and CO2) are shown in Exhibit I-9. The values of these inputs for each of the five construction and operational activities at the proposed Spaceport America are shown in this Exhibit.

Exhibit I-8. Worksheet to Specify Inputs to Emission Factor Calculations

	Input
Fugitive Dust Particulate Matter - Unpaved Public Roads	
3.90	surface material silt content (%) - DEFAULT
0.50	surface material moisture content (%) - DEFAULT
	mean vehicle weight (tons)
	mean vehicle speed (mph)
	vehicle miles traveled on UNPAVED roads
	overall percent suppression effectiveness
Fugitive Dust Particulate Matter - Paved Public Roads	
	mean vehicle weight (tons)
	total miles of PAVED road
0.60	road surface silt loading (g/m2) - DEFAULT: if ADT < 500=0.6; ADT 500-5000=0.2
	Average daily traffic on PAVED roads
	number of trackout points
	percent suppression effectiveness on dry days
Fugitive Dust Particulate Matter - Storage Pile Drop Operations (includes scrapers unloading)	
10	mean wind speed (mph) - DEFAULT (from historical climate data)
0.05	material moisture content (%) - DEFAULT
	mass of material dropped (tons)
	overall percent suppression effectiveness
Fugitive Dust Particulate Matter - Heavy Construction Operations	
	overall percent suppression effectiveness for these operations
Bulldozing (includes compacting and general land clearing)	
	number of hours of operations
Grading (includes scrapers in travel)	
	mean vehicle speed (mph)
	vehicle miles traveled
Scrapers removing topsoil	
	vehicle miles traveled
General construction activity	
	Use only for activities that are not defined elsewhere.
	months of activity
	total area of activity (acres)
Fugitive Dust Particulate Matter - Concrete and Borrow Pit Operations	
Concrete Batching	
	Yards of concrete
Crush Stone Processing	
	Tons of material

Exhibit I-8. Worksheet to Specify Inputs to Emission Factor Calculations (continued)

	Input
Sand and Gravel Processing	
	Tons of material
Pollutants - Gasoline and Diesel Industrial Engines	
	mean hp, gasoline engines
	hrs usage, gasoline engines
	mean hp, diesel engines
	hrs usage, diesel engines
Pollutants - Nonindustrial Surface Coating	
	gallons (water-based)
	gallons (solvent-based)
Pollutants - Asphalt Paving Operations	
	rapid cure cutback (tons) AND % diluent
	medium cure cutback (tons) AND % diluent
	slow cure cutback (tons) AND % diluent
	emulsified (tons) AND diluent fraction (%)
Pollutants - Liquefied Petroleum Gas Combustion (Propane only)	
15	sulfur content (gr/100 scf) - DEFAULT
	gallons (1000's)
Pollutants - Roadway Vehicles	
	year (2009-2013)
	vehicle miles traveled
Pollutants - Non-road Vehicles	Data are days operated
	Rollers, diesel
	Scrapers, diesel
	Trenchers, diesel
	Bore/Drill Rigs, diesel
	Excavators, diesel
	Cranes, diesel
	Graders, diesel
	Off-highway Trucks, diesel
	Crushing/Proc. Equipment, diesel
	Rough Terrain Forklifts, diesel
	Rubber Tire Loaders, diesel
	Tractors/Loaders/Backhoes, diesel
	Crawler Tractor/Dozers, diesel
	Tampers/Rammers, 4-stroke
	Plate Compactors, 4-stroke
	Concrete/Industrial Saws, 4-stroke

Exhibit I-9. Key Inputs to Emission Factor Methods to Calculate Air Quality Emissions

Input	Input Values for Each Activity (Duration of Activity)				
	Construction		Operations		
	Phase 1 (17 Months)	Phase 2 (12 Months)	Vertical Area (Year 2013)	Horizontal Area (Year 2013)	X Prize Event (7 Days)
Used for Fugitive Dust Emissions					
VMT1, unpaved road commute traffic (miles)	2,289,113	599,447	55,891	6,570	126
VMT, unpaved road on-site construction traffic (miles)	128,529	4,913	0	0	0
VMT, paved road commute and construction traffic (miles)2,3,4, Scenario 1	4,868,732	1,398,020	533,995	1,489,565	288,904
VMT, paved road commute and construction traffic (miles)2,3,4, Scenario 3	4,868,732	1,398,020	590,205	1,770,615	301,840
Mean vehicle weight (tons), paved road traffic	11.37	16.55	6.85	11.70	19.60
Pile drop operations (tons)	1,066,593	130,710	0	0	0
Concrete used (cubic yards)	14,179	6,875	0	0	0
Crushed Stone Processed (tons)	131,554	0	0	0	0
Sand and Gravel Processed (tons)	53,826	46,109	0	0	0
Used for Non-Fugitive Dust Criteria Pollutants, CO^2, and HAP Emissions					
Hot Mix Asphalt (tons)	110,880	0	0	0	0
VMT, “all vehicles” (miles)3,5	3,517,950	541,739	532,991	1,050,707	64,178
VMT, buses (miles) 5	0	0	275,593	676,509	217,295
VMT, heavy duty trucks (miles)5, Scenario 1	1,396,928	564,590	68,985	56,210	10,780
VMT, heavy duty trucks (miles)5, Scenario 3	1,396,928	564,590	111,690	269,735	20,608
Non-Road Construction Vehicles (Values Are Days Operated)					
Rollers, diesel	1,654	184	0	0	0
Scrapers, diesel	970	0	0	0	0
Trenchers, diesel	344	0	0	0	0

Input	Input Values for Each Activity (Duration of Activity)				
	Construction		Operations		
	Phase 1 (17 Months)	Phase 2 (12 Months)	Vertical Area (Year 2013)	Horizontal Area (Year 2013)	X Prize Event (7 Days)
Bore/Drill Rigs, diesel	19	0	0	0	0
Excavators, diesel	93	4	0	0	0
Cranes, diesel	1,281	359	0	0	0
Graders, diesel	1,309	273	0	0	0
Off-highway trucks, diesel	3,456	936	0	0	0
Rubber tire loaders, diesel	2,240	756	0	0	0
Tractors/Loaders/Backhoes, diesel	158	251	0	0	0
Crawler Tractor/Dozers, diesel	1,866	0	0	0	0
Tampers/Rammers, 4-stroke	510	0	0	0	0
Plate Compactors, 4-stroke	4	316	0	0	0
Non-road vehicles total days operated	13,903	3,079	0	0	0

[1] VMT=Vehicle miles traveled

[2] VMT for paved roads is not a direct input. Inputs that determine VMT are average daily traffic, miles of road, and number of trackout points (intersections where vehicles track dirt onto a paved road while leaving a construction site or dirt area). The VMT values listed here were computed from these inputs as part of the AP-42 13.1.1 emission calculations.

[3] VMT values for paved road fugitive dust are greater than VMT for roadway vehicles for non-fugitive dust pollutants because the former VMT contains road miles added to include the emission effects of trackout points, per AP-42 13.2.1.

[4] VMT is that for calculating PM10 emissions; VMT for PM2.5 emissions are less due to fewer miles added for trackout points.

[5] Roadway vehicles only; ”all vehicles” is a standard mixed fleet; buses are diesel urban buses; heavy duty trucks are diesel and haul construction material and water.

I.7 Method to Total Emissions for Each Year

Emission totals for each pollutant were calculated for each year of the five-year period covered by this EIS (2009-2013) by the following method. The emissions for a calendar year were calculated by summing the proportion of the emissions from each of the six activities that occurred in that year. These proportions are shown in Exhibit I-10 and are explained as follows. Note that emissions for a construction phase are the total emissions for the entire phase independent of the length of time it would take to complete the phase. Emissions for the three operational activities are the totals estimated for year 2013, the year with the highest level of operations.

Exhibit I-10. Proportions Used to Sum Emissions from Activities for Each Calendar Year

Activity	2009	2010	2011	2012	2013
Construction Phase 1	70.6%	29.4%			
Construction Phase 2		58.3%	41.7%		
Vertical Launch Area Operations	20.0%	49.6%	76.09%	92.0%	100%
Airfield Area Operations		6.6%	33.9%	67.0%	100%
X Prize Cup Event Operations		50.0%	70.0%	90.0%	100%

The following example explains how this methodology was applied for calendar year 2011. Since construction Phase 1 would be completed, it would contribute no emissions to that year. The 58.3 percent of construction Phase 2 would be completed before that year, so 41.7 percent of the total emissions produced by that phase are added for 2011. For operational activities, it was estimated that vertical launch support operations would be at 76.09 percent of the year 2013 levels, horizontal launch support operations would be at 33.9% of year 2013 levels, and X Prize Cup activities would be at 70.0 percent of year 2013 levels.

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APPENDIX J
CALCULATIONS OF EMISSION LOAD FROM VERTICAL LAUNCHES

This appendix presents the methodology to calculate emission loads to the atmosphere from vertical launches at the proposed Spaceport America, and the results of the calculations performed, and is based on Spalding, 2008. "Emission load" is the term used for the mass of emissions exhausted into the atmosphere by rocket engines. The methods are based in part on those used in the PEIS LL, which are presented in Appendix A of that document (FAA, 2001). The purpose of these methods is to estimate the amounts of various exhaust products of environmental concern from rocket propellants that would be emitted in different layers of the atmosphere per year.

J.1 General Method to Calculate Emission Loads

Both the PEIS HL and PEIS LL define the altitude ranges of layers of the atmosphere as shown in Exhibit J-1.

Exhibit J-1. Altitude Range for Various Atmospheric Layers

	Troposphere	Stratosphere	Mesosphere	Ionosphere
Altitude Range	Surface to 10 km	10 to 50 km	50 to 80 km	80 to 1,000 km

Note: 1 km = 0.62 miles
Source: FAA, 2001; FAA, 2005

The general formula to calculate the load for a particular exhaust product in a layer of the atmosphere per year for a single type of rocket launch is as follows:

Load of exhaust product per layer per year = number of launches per year ×
total mass of propellant per LV ×
proportion of propellant burned in layer ×
weight fraction of product in exhaust

The total load for an exhaust product in a year would be the sum of the loads for all launches of each type of rocket launch. The values used in this formula, and the assumptions underlying them, are given in the next section.

J.2 Data Used to Calculate Emission Loads

The estimated number of vertical LV launches and landings per year, propellant types, and typical propellant masses for concept LVs are shown in Exhibit J-2. The launches for years 2009 through 2013 are listed by propellant type, with each concept/propellant type LV having a typical propellant mass, as explained further below. Landings of vertical concept LVs are also included as they would emit exhaust products into the atmosphere. These estimates of proposed

Exhibit J-2. Estimated Number of Vertical LV Launches and Powered Landings Per Year, Propellant Types, and Typical Propellant Masses for Concept LVs at the Proposed Spaceport America

Vertical LV Concept	Propellant Type	Typical Propellant Mass (tons)	Estimated Number of Vertical Launches or Powered Landings				
			2009	2010	2011	2012	2013
Concept V1 Launch[1]	All launches		25	60	80	90	100
	Solid	1	10	40	50	60	70
	Hydro/Hybrid[2]	20	5	20	30	30	30
Concept V2 Launch	All launches		0	0	5	5	5
	Hydro/Hybrid	20	0	0	3	3	3
	Cryogenic	20	0	0	2	2	2
Concept V2 Powered Horizontal Landing	All landings		0	0	5	5	5
	Hydrocarbon	2	0	0	3	3	3
	Cryogenic	2	0	0	2	2	2
Concept V3 Launch	All launches		0	2	10	20	20
	Hydrocarbon	20	0	1	5	10	10
	Cryogenic	20	0	1	5	10	10
Concept V3 Powered Vertical Landing	All landings		0	2	10	20	20
	Hydrocarbon	2	0	1	5	10	10
	Cryogenic	2	0	1	5	10	10
Total (all launches)			25	62	95	115	125
Total (all powered landings)			0	2	15	25	25

[1] Hydrogen peroxide used as a monopropellant is not considered because the number of LVs that would use it is difficult to estimate and its exhaust contains no compounds that would adversely affect any atmospheric layer. If used as an oxidizer with a hydrocarbon fuel, the exhaust components would be similar to those using LOX with hydrocarbon fuels.

[2] Hydro/Hybrid = hydrocarbon or hybrid propellants; hybrid propellants would use LOX as the oxidizer and a hydrocarbon fuel such as hydroxy-terminated polybutadiene (HTPB), which the PEIS LL (FAA, 2001) assumed has emission-weighted fractions similar to the weighted fractions for the LOX/RP1 (hydrocarbon) propellants.

Spaceport America launch data cannot be known with certainty because they depend on future commercial space customers and LVs that are under development or in planning stages. For reasons given below, however, these data are considered conservative over-estimates.

The LVs of each concept are assumed to be divided by propellant type. Each LV would have a typical propellant mass. SRMs would be used in Concept V1 vehicles only. These would be small sounding rocket class vehicles with a typical propellant mass of one ton. The first proposed Spaceport America customer (UP Aerospace) has launched an LV of this type (under an amateur waiver from the FAA) with a propellant mass of 415 lb (0.2 ton). The proposed LV in the Launch Site Operator License Application for the Spaceport is the Improved Orion, which is a Concept V1 LV with an SRM propellant mass of 650 lb (0.325 tons). It is not expected that

any LV of this type would have a propellant mass of 2,000 lb within the five-year period of this EIS. Even if such an LV were launched in this period, the average propellant mass is expected to be far below one ton. Therefore, the estimate of one ton as a typical mass is considered a conservative overestimate

All other LVs are assumed to carry people or payloads on the order of 0.9 metric tons (1 ton). All LVs of this larger class would use hydrocarbon, hybrid, or cryogenic propellant systems. The numbers of launches of LVs with hydrocarbon or hybrid propellants are combined because their exhaust product weight fractions are similar (see note 2 in Exhibit J-2). The maximum possible weight of propellant in the largest vertical LV is 30 metric tons (33 tons); however, a typical mass of 18 metric tons (20 tons) is expected to be a conservative overestimate, especially within the five-year period of this EIS. As an example, the Michelle-B LV under development by TGV-Rockets is a Concept V3 type with gross weight of nearly 28 metric tons (31 tons) and a propellant weight of 19.8 metric tons (21.8 tons) (Martin and Law, 2002). Some of this propellant would be used for its powered vertical landing. Although larger propellant masses would be possible in vertical LVs, some LVs would have less propellant. For example, the Thunderstar vehicle being developed by Starchaser Industries would have nine tons of propellant and is designed to carry a payload of one ton or three passengers to an altitude of 158 km (98 miles) (Starchaser, 2008).

A propellant mass of 1.8 metric tons (2 tons) is estimated for Concept V2 and V3 powered landings. V2 vehicles would fire rockets only for maneuvering near the airfield in preparation for horizontal landing. V3 vehicles would have a powered vertical landing. These vehicles would employ parachutes or aero-braking of some type to slow the descent velocity and would not fire rockets at high thrust until near the ground. For example, the Michelle-B terminal velocity is estimated to be below 50 m/s (112 mph; Martin and Law, 2002). An estimate of two tons of propellant for the powered landing of vertical LVs is considered a conservative overestimate.

The next element in the formula for calculating emission loads is the proportion of propellant burned in each layer of the atmosphere, which depends on the type of vehicle and whether it is launching or landing. Assuming a constant thrust, estimates for the amount of time a rocket spends in a given range of altitude can be calculated from the kinematics equations for rocket flight. These equations were solved for the two types of rocket assumed in Exhibit J-2 (small solid and larger hydrocarbon/hybrid/cryogenic) based on the parameters shown in Exhibit J-3. These parameter values were provided by Up Aerospace for the small solid propellant rocket and by Starchaser Industries for the larger, non-solid propellant rocket. It is recognized that using only two types of rockets for this purpose is a simplification, but one that seems reasonable given the lack of information on vertical LVs that would launch from Spaceport America.

The proportion of propellant burned in each layer of the atmosphere is also estimated for the powered landing phases of vertical Concept V2 and V3 vehicles. As described above, V2 powered landings would probably be used only to maneuver near the airfield and V3 vehicles would be slowed by some form of aero-braking prior to firing rockets at high thrust for landing. The most conservative assumption is to assume that all propellant 1.8 metric tons (2 tons) used for landing these vehicles is burned below 914 m (3,000 feet) above the ground, which is the portion of the atmosphere to which the ambient air quality regulations apply.

Exhibit J-3. Parameters Used to Solve the Kinematic Equations for Vertical Rocket Flights at the Proposed Spaceport America

Vertical Launch Vehicle Type	Gross Liftoff Weight of Vehicle (kg)	Thrust (newtons)	Engine Burn Time (seconds)
Solid propellant, small sounding rocket	367	49×104	13.5
Hydrocarbon, hybrid, or cryogenic propellants, one ton payload	15,000	1.92×105	70

The proportion of propellant burned in each layer of the atmosphere that was determined from the above analyses is shown in Exhibit J-4. The portion of the atmosphere below 914 m (3,000 feet) is included because the EPA uses that altitude to assess contributions of emissions to the ambient air quality under the Clean Air Act (CAA) (EPA, 1992). The troposphere layer includes the layer below 914 m (3,000 feet). Both types of LVs analyzed terminate rocket firing in ascent before they would reach the mesosphere.

Exhibit J-4. Proportions of Total Propellant Mass Burned in Atmospheric Layers

	Proportion of Propellant Burned in Atmospheric Layer			
Type of Launch	Below 3,000 feet	Troposphere	Stratosphere	Mesosphere
Launch, solid propellant	27%	91%	9%	0%
Launch, hydro/hybrid propellant	14%	47%	53%	0%
Landing, hydrocarbon propellant	100%	100%	0%	0%

The final element in the formula to calculate emission loads is the weight fraction of each exhaust product (e.g., CO_2). This is the proportion of that product in the total exhaust mass and is a function of propellant type and atmospheric layer. The weight fractions used here were those provided in the PEIS LL (FAA, 2001) and are shown in Exhibit J-5. Data are not provided for cryogenic propellants (LOX and liquid H_2) because the exhaust emissions consist of H_2O and H_2. The PEIS LL states the following assumptions concerning exhaust products, which results in different weight fractions for some products in the troposphere and stratosphere vs. the mesosphere:

> In most studies, the weight fraction information for CO, CO_2, and H_2 pertains to the exhaust directly from the nozzle and not after the exhaust could react with the air. However, most studies acknowledge that in the troposphere and stratosphere, the CO will almost completely react to CO_2 in the high temperatures of the exhaust plume. Likewise, H_2 and N_2 in the exhaust plume will almost completely react to form H_2O and NO_X. (FAA, 2001)

Exhibit J-5. Weight Fractions of Solid, Hydrocarbon, and Hybrid Propellant Exhaust Emissions

Propellant Type	Layer of Atmosphere	Weight Fraction of Exhaust Product							
		HCl	Al_2O_3	Cl	CO_2	CO	NO_2	H_2O	OH
Solid	Trop/Strat[1]	0.2100	0.3800	0.0028	0.4600	-	0.2700	0.2700	-
	Mesosphere	0.2100	0.3800	0.0028	0.0300	0.2300	-	0.0630	-
Hydro/ Hybrid	Trop/Strat	-	-	-	0.9310	-	-	0.3400	0.0350
	Mesosphere	-	-	-	0.1800	0.0300	0.0190	-	-

[1]Weight fractions for exhaust in the troposphere and stratosphere are the same

J.3 Emission Loads

The data in the previous section were used to calculate total emission loads to each atmospheric layer for the years 2009-2013. These data and equations were used in a spreadsheet to perform the calculations. These emission loads for all vertical launches in year 2011 are presented in the spreadsheet output format in Exhibit J-6a through J-6e.

Exhibit J-6a. Rocket Emission Loads to Atmospheric Layers for All Vertical Launches in Year 2009

	No. Ops[1]	Propellant (tons)[3]	HCl	Al_2O_3	Cl	CO_2	CO	NO_2	H_2O	OH
Bottom 3000 ft										
V1 Launch, Solid	25	1	1.42	2.57	0.02	3.11	0.00	1.82	1.82	0.00
V1 Launch, Hydro/Hybrid[2]	0	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2 Launch, Hydro/Hybrid	0	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2 Landing, Hydrocarbon	0	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V3 Launch, Hydrocarbon	0	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V3 Landing, Hydrocarbon	0	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	**25**		**1.42**	**2.57**	**0.02**	**3.11**	**0.00**	**1.82**	**1.82**	**0.00**
Troposphere										
V1 Launch, Solid	25	1	4.78	8.65	0.06	10.47	0.00	6.14	6.14	0.00
V1 Launch, Hydro/Hybrid	0	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2 Launch, Hydro/Hybrid	0	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2 Landing, Hydrocarbon	0	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V3 Launch, Hydrocarbon	0	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V3 Landing, Hydrocarbon	0	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	**25**		**4.78**	**8.65**	**0.06**	**10.47**	**0.00**	**6.14**	**6.14**	**0.00**
Stratosphere										
V1 Launch, Solid	25	1	0.47	0.86	0.01	1.04	0.00	0.61	0.61	0.00
V1 Launch, Hydro/Hybrid	0	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2 Launch, Hydro/Hybrid	0	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2 Landing, Hydrocarbon	0	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V3 Launch, Hydrocarbon	0	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V3 Landing, Hydrocarbon	0	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	**25**		**0.47**	**0.86**	**0.01**	**1.04**	**0.00**	**0.61**	**0.61**	**0.00**

1 Number of launch and landing operations.
2 Hydro/Hybrid=Hydrocarbon or hybrid propellant system.
3 1 metric ton = 1.1 ton

Exhibit J-6b. Rocket Emission Loads to Atmospheric Layers for All Vertical Launches in Year 2010

	No. Ops[1]	Propellant (tons)[3]	HCl	Al_2O_3	Cl	CO_2	CO	NO_2	H_2O	OH
Bottom 3000 ft										
V1 Launch, Solid	40	1	2.27	4.10	0.03	4.97	0.00	2.92	2.92	0.00
V1 Launch, Hydro/Hybrid[2]	20	20	0.00	0.00	0.00	52.14	0.00	0.00	19.04	1.96
V2 Launch, Hydro/Hybrid	0	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2 Landing, Hydrocarbon	0	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V3 Launch, Hydrocarbon	1	20	0.00	0.00	0.00	2.61	0.00	0.00	0.95	0.10
V3 Landing, Hydrocarbon	1	2	0.00	0.00	0.00	1.86	0.00	0.00	0.68	0.07
TOTAL	**62**		**2.27**	**4.10**	**0.03**	**61.57**	**0.00**	**2.92**	**23.59**	**2.13**
Troposphere										
V1 Launch, Solid	40	1	7.64	13.83	0.10	16.74	0.00	9.83	9.83	0.00
V1 Launch, Hydro/Hybrid	20	20	0.00	0.00	0.00	175.03	0.00	0.00	63.92	6.58
V2 Launch, Hydro/Hybrid	0	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2 Landing, Hydrocarbon	0	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V3 Launch, Hydrocarbon	1	20	0.00	0.00	0.00	8.75	0.00	0.00	3.20	0.33
V3 Landing, Hydrocarbon	1	2	0.00	0.00	0.00	1.86	0.00	0.00	0.68	0.07
TOTAL	**62**		**7.64**	**13.83**	**0.10**	**202.39**	**0.00**	**9.83**	**77.62**	**6.98**
Stratosphere										
V1 Launch, Solid	40	1	0.76	1.37	0.01	1.66	0.00	0.97	0.97	0.00
V1 Launch, Hydro/Hybrid	20	20	0.00	0.00	0.00	197.37	0.00	0.00	72.08	7.42
V2 Launch, Hydro/Hybrid	0	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2 Landing, Hydrocarbon	0	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V3 Launch, Hydrocarbon	1	20	0.00	0.00	0.00	9.87	0.00	0.00	3.60	0.37
V3 Landing, Hydrocarbon	1	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	**62**		**0.76**	**1.37**	**0.01**	**208.90**	**0.00**	**0.97**	**76.66**	**7.79**

1 Number of launch and landing operations.
2 Hydro/Hybrid=Hydrocarbon or hybrid propellant system.
3 1 metric ton = 1.1 ton

Exhibit J-6c. Rocket Emission Loads to Atmospheric Layers for All Vertical Launches in Year 2011

	No. Ops[1]	Propellant (tons)[3]	HCl	Al_2O_3	Cl	CO_2	CO	NO_2	H_2O	OH
Bottom 3000 ft										
V1 Launch, Solid	50	1	2.84	5.13	0.04	6.21	0.00	3.65	3.65	0.00
V1 Launch, Hydro/Hybrid[2]	30	20	0.00	0.00	0.00	78.20	0.00	0.00	28.56	2.94
V2 Launch, Hydro/Hybrid	3	20	0.00	0.00	0.00	7.82	0.00	0.00	2.86	0.29
V2 Landing, Hydrocarbon	3	2	0.00	0.00	0.00	5.59	0.00	0.00	2.04	0.21
V3 Launch, Hydrocarbon	5	20	0.00	0.00	0.00	13.03	0.00	0.00	4.76	0.49
V3 Landing, Hydrocarbon	5	2	0.00	0.00	0.00	9.31	0.00	0.00	3.40	0.35
TOTAL	**96**		**2.84**	**5.13**	**0.04**	**120.16**	**0.00**	**3.65**	**45.26**	**4.28**
Troposphere										
V1 Launch, Solid	50	1	9.56	17.29	0.13	20.93	0.00	12.29	12.29	0.00
V1 Launch, Hydro/Hybrid	30	20	0.00	0.00	0.00	262.54	0.00	0.00	95.88	9.87
V2 Launch, Hydro/Hybrid	3	20	0.00	0.00	0.00	26.25	0.00	0.00	9.59	0.99
V2 Landing, Hydrocarbon	3	2	0.00	0.00	0.00	5.59	0.00	0.00	2.04	0.21
V3 Launch, Hydrocarbon	5	20	0.00	0.00	0.00	43.76	0.00	0.00	15.98	1.65
V3 Landing, Hydrocarbon	5	2	0.00	0.00	0.00	9.31	0.00	0.00	3.40	0.35
TOTAL	**96**		**9.56**	**17.29**	**0.13**	**368.38**	**0.00**	**12.29**	**139.17**	**13.06**
Stratosphere										
V1 Launch, Solid	50	1	0.95	1.71	0.01	2.07	0.00	1.22	1.22	0.00
V1 Launch, Hydro/Hybrid	30	20	0.00	0.00	0.00	296.06	0.00	0.00	108.12	11.13
V2 Launch, Hydro/Hybrid	3	20	0.00	0.00	0.00	29.61	0.00	0.00	10.81	1.11
V2 Landing, Hydrocarbon	3	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V3 Launch, Hydrocarbon	5	20	0.00	0.00	0.00	49.34	0.00	0.00	18.02	1.86
V3 Landing, Hydrocarbon	5	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	**96**		**0.95**	**1.71**	**0.01**	**377.08**	**0.00**	**1.22**	**138.17**	**14.10**

1 Number of launch and landing operations.
2 Hydro/Hybrid=Hydrocarbon or hybrid propellant system.
3 1 metric ton = 1.1 ton

Exhibit J-6d. Rocket Emission Loads to Atmospheric Layers for All Vertical Launches in Year 2012

	No. Ops[1]	Propellant (tons)[3]	HCl	Al_2O_3	Cl	CO_2	CO	NO_2	H_2O	OH
Bottom 3000 ft										
V1 Launch, Solid	60	1	3.40	6.16	0.05	7.45	0.00	4.37	4.37	0.00
V1 Launch, Hydro/Hybrid[2]	30	20	0.00	0.00	0.00	78.20	0.00	0.00	28.56	2.94
V2 Launch, Hydro/Hybrid	3	20	0.00	0.00	0.00	7.82	0.00	0.00	2.86	0.29
V2 Landing, Hydrocarbon	3	2	0.00	0.00	0.00	5.59	0.00	0.00	2.04	0.21
V3 Launch, Hydrocarbon	10	20	0.00	0.00	0.00	26.07	0.00	0.00	9.52	0.98
V3 Landing, Hydrocarbon	10	2	0.00	0.00	0.00	18.62	0.00	0.00	6.80	0.70
TOTAL	**116**		**3.40**	**6.16**	**0.05**	**143.75**	**0.00**	**4.37**	**54.15**	**5.12**
Troposphere										
V1 Launch, Solid	60	1	11.47	20.75	0.15	25.12	0.00	14.74	14.74	0.00
V1 Launch, Hydro/Hybrid	30	20	0.00	0.00	0.00	262.54	0.00	0.00	95.88	9.87
V2 Launch, Hydro/Hybrid	3	20	0.00	0.00	0.00	26.25	0.00	0.00	9.59	0.99
V2 Landing, Hydrocarbon	3	2	0.00	0.00	0.00	5.59	0.00	0.00	2.04	0.21
V3 Launch, Hydrocarbon	10	20	0.00	0.00	0.00	87.51	0.00	0.00	31.96	3.29
V3 Landing, Hydrocarbon	10	2	0.00	0.00	0.00	18.62	0.00	0.00	6.80	0.70
TOTAL	**116**		**11.47**	**20.75**	**0.15**	**425.63**	**0.00**	**14.74**	**161.01**	**15.06**
Stratosphere										
V1 Launch, Solid	60	1	1.13	2.05	0.02	2.48	0.00	1.46	1.46	0.00
V1 Launch, Hydro/Hybrid	30	20	0.00	0.00	0.00	296.06	0.00	0.00	108.12	11.13
V2 Launch, Hydro/Hybrid	3	20	0.00	0.00	0.00	29.61	0.00	0.00	10.81	1.11
V2 Landing, Hydrocarbon	3	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V3 Launch, Hydrocarbon	10	20	0.00	0.00	0.00	98.69	0.00	0.00	36.04	3.71
V3 Landing, Hydrocarbon	10	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	**116**		**1.13**	**2.05**	**0.02**	**426.83**	**0.00**	**1.46**	**156.43**	**15.95**

1 Number of launch and landing operations.
2 Hydro/Hybrid=Hydrocarbon or hybrid propellant system.
3 1 metric ton = 1.1 ton

Exhibit J-6e. Rocket Emission Loads to Atmospheric Layers for All Vertical Launches in Year 2013

	No. Ops[1]	Propellant (tons)[3]	HCl	Al_2O_3	Cl	CO_2	CO	NO_2	H_2O	OH
Bottom 3000 ft										
V1 Launch, Solid	70	1	3.97	7.18	0.05	8.69	0.00	5.10	5.10	0.00
V1 Launch, Hydro/Hybrid[2]	30	20	0.00	0.00	0.00	78.20	0.00	0.00	28.56	2.94
V2 Launch, Hydro/Hybrid	3	20	0.00	0.00	0.00	7.82	0.00	0.00	2.86	0.29
V2 Landing, Hydrocarbon	3	2	0.00	0.00	0.00	5.59	0.00	0.00	2.04	0.21
V3 Launch, Hydrocarbon	10	20	0.00	0.00	0.00	26.07	0.00	0.00	9.52	0.98
V3 Landing, Hydrocarbon	10	2	0.00	0.00	0.00	18.62	0.00	0.00	6.80	0.70
TOTAL	**126**		**3.97**	**7.18**	**0.05**	**144.99**	**0.00**	**5.10**	**54.88**	**5.12**
Troposphere										
V1 Launch, Solid	70	1	13.38	24.21	0.18	29.30	0.00	17.20	17.20	0.00
V1 Launch, Hydro/Hybrid	30	20	0.00	0.00	0.00	262.54	0.00	0.00	95.88	9.87
V2 Launch, Hydro/Hybrid	3	20	0.00	0.00	0.00	26.25	0.00	0.00	9.59	0.99
V2 Landing, Hydrocarbon	3	2	0.00	0.00	0.00	5.59	0.00	0.00	2.04	0.21
V3 Launch, Hydrocarbon	10	20	0.00	0.00	0.00	87.51	0.00	0.00	31.96	3.29
V3 Landing, Hydrocarbon	10	2	0.00	0.00	0.00	18.62	0.00	0.00	6.80	0.70
TOTAL	**126**		**13.38**	**24.21**	**0.18**	**429.82**	**0.00**	**17.20**	**163.47**	**15.06**
Stratosphere										
V1 Launch, Solid	70	1	1.32	2.39	0.02	2.90	0.00	1.70	1.70	0.00
V1 Launch, Hydro/Hybrid	30	20	0.00	0.00	0.00	296.06	0.00	0.00	108.12	11.13
V2 Launch, Hydro/Hybrid	3	20	0.00	0.00	0.00	29.61	0.00	0.00	10.81	1.11
V2 Landing, Hydrocarbon	3	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V3 Launch, Hydrocarbon	10	20	0.00	0.00	0.00	98.69	0.00	0.00	36.04	3.71
V3 Landing, Hydrocarbon	10	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	**126**		**1.32**	**2.39**	**0.02**	**427.25**	**0.00**	**1.70**	**156.67**	**15.95**

1 Number of launch and landing operations.
2 Hydro/Hybrid=Hydrocarbon or hybrid propellant system.
3 1 metric ton = 1.1 ton

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APPENDIX K
AQUIFER DRAWDOWN CALCULATIONS

To determine the effects of proposed Spaceport America ground water use on the alluvial aquifer beneath the proposed site and vicinity, aquifer drawdown calculations were performed. Those calculations evaluate the impacts of the construction and operations pumping scenarios from a theoretical well with withdrawal (pumping rate) equivalent to the three wells of the Proposed Action. Ground water drawdowns at locations from one-half to three miles from the proposed withdrawals are presented in Chapter 4; the details of the drawdown calculation at two miles after one-and-a-half years of construction Phase 1 pumping are amplified in this appendix.

The aquifer drawdown was calculated using the Theis equation, which is a long-established method for estimating drawdown at a fully penetrating pumping well in a homogeneous, isotropic, uniformly thick aquifer.

$$h_0 - h(r, t) = \frac{Q}{4\pi T} \int_u^\infty \frac{e^{-u}\, du}{u} = \frac{Q}{4\pi T} W(u)$$

where h_0 = initial elevation of aquifer pressure head (meters)
r = distance from pumping well (meters)
t = time since pumping began (days)
h(r, t) = elevation of aquifer pressure head at distance r and time t (meters)
Q = pumping rate (cubic meters/day)
T = aquifer transmissivity (square meters/day)
S = aquifer storativity (unitless)
$u = r^2S/(4Tt)$
$W(u)$ = well function = $-0.5772 - \ln(u) + u - u^2/(2*2!) + u^3/(3*3!) - u^4/(4*4!) + \ldots$

Parameters used in the proposed Spaceport America water impacts drawdown analysis were:

Q = 199.12 cubic meters/day (58.9 acre-feet/year) for 1 ½ years of construction Phase 1
36.947 cubic meters/day (10.9 acre-feet/year) for 1 year of construction Phase 2
56.522 cubic meters/day (16.7 acre-feet/year) for operations
(Thomas and Gutman, 2007)

T = 46.5 square meters/day (500 square feet/day), rounded down from the smallest value for producing wells measured on-site by Shomaker (2008). The Theis equation, above, shows that larger transmissivity results in smaller drawdown.

S = 0.0001 the lowest end of the range for the alluvial sediments (Shomaker, 2006). A lower value of S results in a lower value of u and a larger value of the well function. The larger the well function, the greater the drawdown.

The calculation of the drawdown one-mile from the equivalent Spaceport America well after one-and-a-half years of construction is calculated below:

r = 3218.68 meters
t = 547.5 days
Q = 199.12 cubic meters/day
T = 46.45 square meters/day
S = .0001
u = 3218.68 * 3218.68 * .0001/(4 * 46.45 * 547.5) = .01018
W(u) = -0.5772 – ln(.01018) + .01018 – 2.593E-5 + 5.868E-8 -…. = 4.020

h_0 – h(2 miles, 2 years) = 199.12 * 4.020/ (4 * π * 46.45) = 1.371 meters (4.5 feet)

Drawdown during construction Phase 2, which is assumed to begin at the conclusion of the 1 ½ year duration of Phase 1, was calculated by superposition of the Phase 2 withdrawal solution to the Theis equation on the Phase 1 solution.

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APPENDIX L
SCHEMATICS OF MAJOR PROPOSED FACILITIES

Exhibit L-1
Aerial View of Proposed Terminal and Hangar Facility



Exhibit L-2
East Elevation (facing toward Runway) of Proposed Terminal and Hangar Facility



Exhibit L-3
West Elevation (facing toward Spaceport America Entrance) of Proposed Terminal and Hangar Facility



Exhibit L-4
Aerial View of North Elevation of Proposed Terminal and Hangar Facility

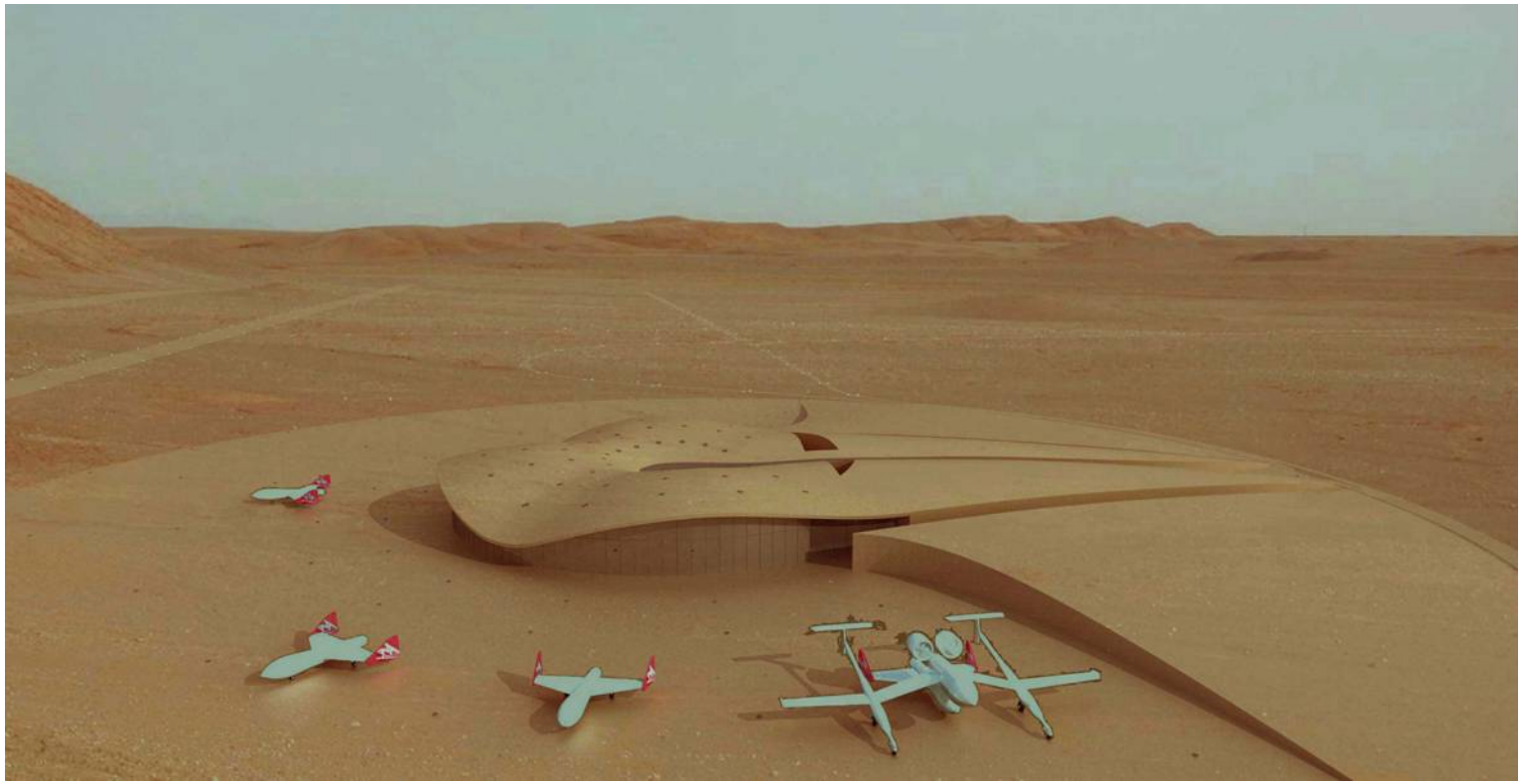


Exhibit L-5
North and South (facing toward Terminal and Hangar Facility) Elevations of Proposed Aircraft Rescue and Fire-Fighting Facility

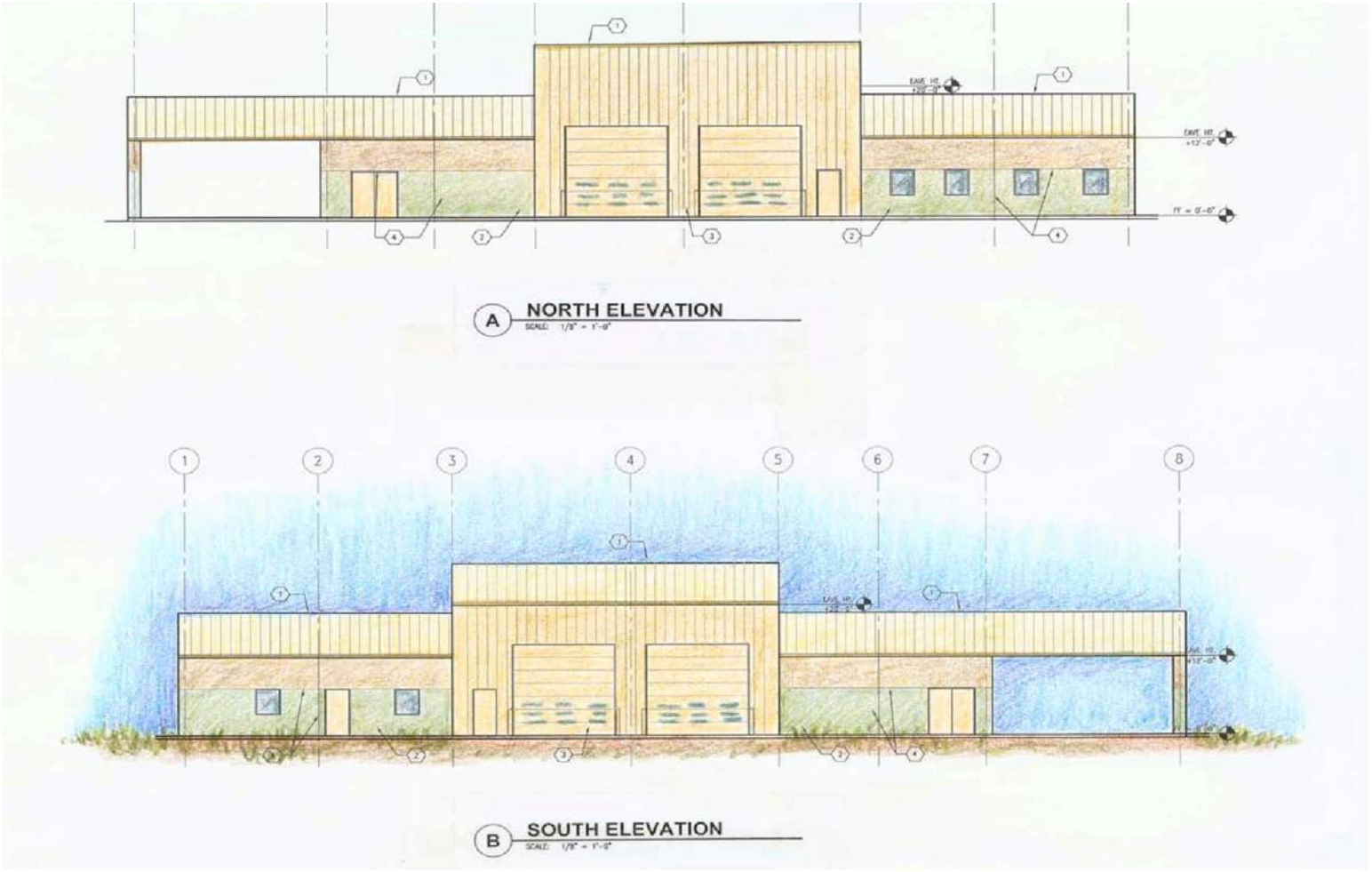
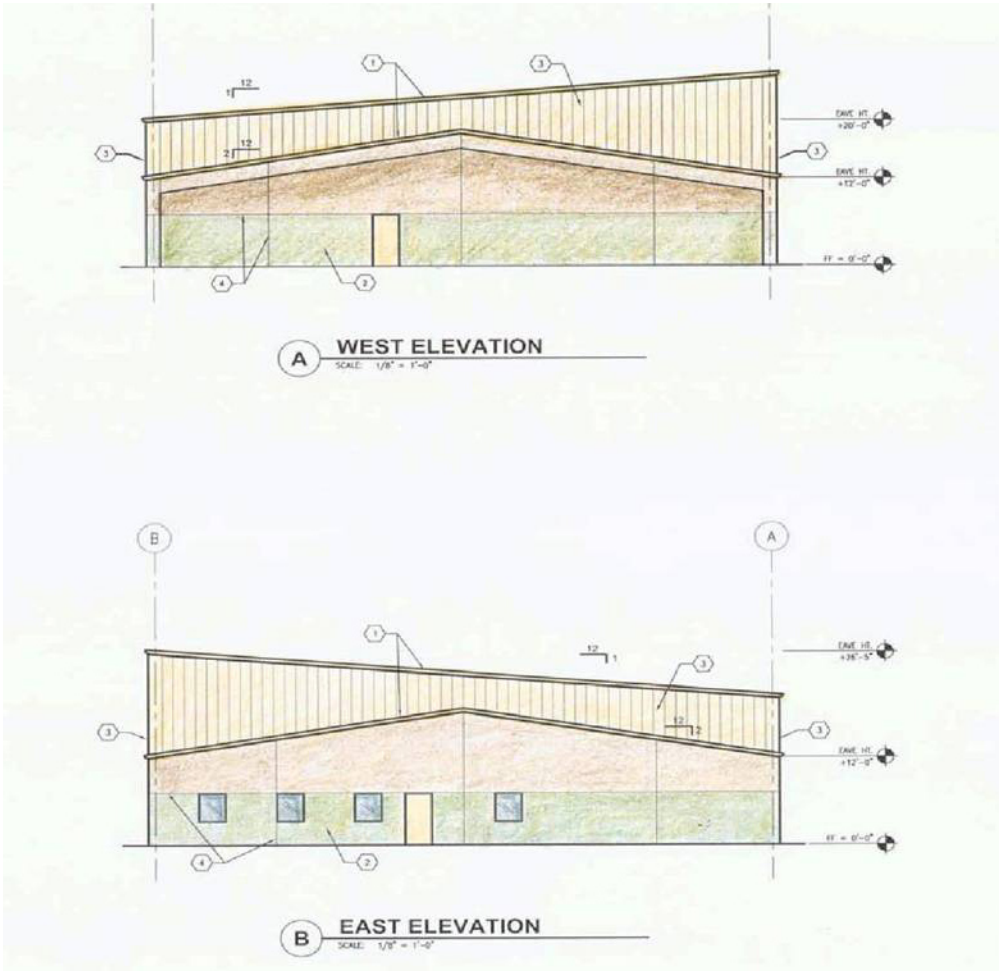


Exhibit L-6
West and East (facing toward Runway) Elevations of Proposed Aircraft Rescue and Fire-Fighting Facility



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APPENDIX M
CALCULATIONS OF EMISSION LOAD FROM AIRFIELD OPERATIONS

This appendix presents the methodology to calculate air emissions due to aircraft operations at the proposed Spaceport America, and the results of the calculations performed.

M.1 General Method to Calculate Emission Loads

The air emissions due to aircraft operations at the proposed Spaceport America were calculated using the Emissions and Dispersion Modeling System (EDMS) program (version 5.0.2) produced by the Federal Aviation Administration (FAA, 2007). By specifying aircraft type, engine type, and the number of landing and takeoff (LTO) cycles, EDMS determines the amount of the following air emissions.

- Carbon Monoxide (CO)
- Total Hydrocarbons (THC)
- Non-Methane Hydrocarbons (NMHC)
- Volatile Organic Compounds (VOC)
- Oxides of Nitrogen (NOx)
- Oxides of Sulfur (SOx)
- Particulate Matter 10 microns and smaller (PM-10)
- Particulate Matter 2.5 microns and smaller (PM-2.5)

EDMS also calculates the air emissions from the typical auxiliary power units (APU) and ground support equipment (GSE) associated with the specified aircraft activity. These calculations are made using the International Civil Aviation Organization (ICAO) and United States Environmental Protection Agency (USEPA) defaults within EDMS. Air emissions were calculated for both normal aircraft operations and the seven days of X Prize Cup activities.

M.2 Data Used to Calculate Emission Loads

EDMS requires several types of inputs, including the numbers and types of aircraft using the airfield (fleet mix), the airfield location, and the number of Landing & Takeoff Operations (LTOs) per aircraft and engine type (an LTO is the combination of one arrival and one departure while an "operation" is an arrival or departure; therefore one LTO equals two operations). The fleet mix for normal operations is shown in Exhibit M-1, and Exhibit M-2 shows the fleet mix for additional aircraft operations during X Prize Cup operations. Exhibit M-3 shows the maximum annual number of LTOs per aircraft and engine type. The airfield location was estimated at latitude of 33.00356 North and longitude of 106.97276 West and an elevation of 4601 feet above sea level. Exhibit M-3 shows the number of LTOs for each combination of aircraft type and engine type (Spalding and Gutman, 2008). The amount of time it takes for aircraft to taxi to and from the runway was assumed to be 16.5 and 7 minutes, respectively (NYCC, 2007). Default values were used for all other inputs.

Exhibit M-1
Aircraft Fleet Mix for Normal Operations

User	Aircraft	MTOW (lbs)	Annual Departures	Aircraft In INM?	Substitution Aircraft	MTOW (lbs)	Departures Annual	Departures Daily	INM Aircraft Used
Tenant 1	Boeing 757	240,000	1,200	Yes			750.0	2	Boeing 757-200/pw2037
Tenant 2	150,000 DWG	150,000	600	No	Boeing 737-400	150,000	5.0	0.014	Not modeled because the small number of flights annually (7) would make no significant contribution to DNL average sound; included in X Prize Ops
Tenant 3	150,000 DWG	150,000	300	No	Boeing 737-400	150,000	2.0	0.005	
Global Express	100,000 DWG	100,000	500	No	Boeing 737-100	108,000	180.2	0.5	Boeing 737/JT8D-9QN [substitution]
Gulfstream V	90,500 DWG	90,500	500	Yes			180.2	0.5	Gulfstream GV/BR 710
Gulfstream IV	73,200 DWG	73,200	500	Yes			180.2	0.5	Gulfstream GIV-SP/TAY 611-8
Gulfstream III	68,700 DWG	68,700	500	Yes			180.2	0.5	Gulfstream GIIB/GIII-SPEY 511-8
Eclipse 500	7,000 SWG	7,000	1,000	No	550 Citation II	15,000	360.5	1.0	MU3001 [substitution]
Citation X	35,700 DWG	35,700	500	Yes			180.2	0.5	Citation X/RR Allison AE 3007C
Other	30,000 SWG	30,000	1,000	No	Learjet 60	23,500	360.5	1.0	Learjet 60 [LEAR 35 substitution]

Source: Spalding and Gutman, 2008.

Exhibit M-2
Aircraft Fleet Mix for Additional X Prize Cup Operations

Aircraft	Purpose	Departures Daily	INM Aircraft Used ID	INM Aircraft Used Description
550 Citation II	Carry passengers or chase plane	4	CNA550	MU3001 [substitution aircraft]
Boeing 737-400	Horizontal LV flights	2	737400	Boeing 737-400/CFM56-3C-1
Boeing 727-200	Zero-gravity flights	3	727D17	Boeing 727-200/JT8D-17
Learjet 25	Rocket Racers	96	LEAR25	LEAR 25/CJ610-8

Source: Spalding and Gutman, 2008

Exhibit M-3
Maximum Annual LTOs per Aircraft and Engine Type

Aircraft type	Engine type	LTO
Normal Operations		
Boeing 737-100 Series	JT8D-9 series	181
Boeing 757-200 Series	PW2037	750
Boeing 737-400 Series	CFM56-3C-1	7
Bombardier Learjet 60	TFE731-2/2A	361
Cessna 550 Citation II	JT15D-4 series	361
Cessna 750 Citation X	AE3007C Type 2	181
Gulfstream G550	BR700-710A1-10	181
Gulfstream II-B	SPEY Mk511 Transply IIH	181
Gulfstream IV-SP	TAY 611-8C Transply IIJ	181
X Prize Cup Activities		
Boeing 737-400 Series	CFM56-3C-1	14
Boeing 757-200 Series	PW2037	21
Bombardier Learjet 60	TFE731-2/2A	672
Cessna 550 Citation II	JT15D-4 series	28

M.3 Results

The following exhibits give the results of the EDMS calculations. Exhibit M-4 and Exhibit M-5 show aircraft, GSE, and APU emissions per type of aircraft from normal operations and X Prize Cup activities, respectively. Exhibit M-6 and Exhibit M-7 show the maximum annual emissions for normal operations and the seven days of X Prize Cup activities, respectively. The estimated maximum annual pollutant emissions due to airfield operations are presented in Exhibit M-8.

Exhibit M-4
Emissions from Airfield Activities during Normal Spaceport Operations (tons)

Aircraft	Engine	Mode	CO	THC	NMHC	VOC	NOx	SOx	PM-10	PM-2.5	Fuel Con
Boeing 737-100	JT8D0-9 Series Reduced	Airport	1,287	0.594	0.594	0.562	1.406	0.236	0.042	0.042	173.662
#1		APU	0.166	0.010	0.010	0.010	0.044	0.009	0.000	0.000	N/A
		GSE	2.526	0.090	0.082	0.085	0.264	0.007	0.007	0.007	N/A
Boeing 737-400	CPM56-3C-1	Airport	0.086	0.009	0.009	0.009	0.075	0.009	0.002	0.002	6.961
#1		APU	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	N/A
		GSE	0.098	0.003	0.003	0.003	0.010	0.000	0.000	0.000	N/A
Boeing 757-200	PW2037	Airport	9.211	1.633	1.633	1.547	13.572	1.325	0.331	0.331	974.312
#1		APU	0.180	0.019	0.019	0.019	0.414	0.044	0.000	0.000	N/A
		GSE	10.481	0.377	0.343	0.357	1.142	0.0.32	0.032	0.031	N/A
Bombardier Learj	TFE731-2/2A	Airport	1.662	0.443	0.443	0.407	0.306	0.063	0.012	0.012	46.535
#1		APU	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		GSE	1.937	0.070	0.063	0.065	0.165	0.004	0.002	0.002	N/A
Cessna 550 Citat	JT15D-4 series	Airport	3.324	2.051	2.051	1.886	0.169	0.059	0.041	0.041	43.546
		APU	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		GSE	1.942	0.071	0.064	0.066	0.177	0.004	0.003	0.003	N/A
Cessna 750 Citat	AE3007C Type 2	Airport	0.826	0.210	0.210	0.193	0.208	0.045	0.006	0.006	32.992
#1		APU	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		GSE	0.974	0.036	0.032	0.033	0.089	0.002	0.001	0.001	N/A
Gulfstream G550	BR700-710A1-10	Airport	1.482	0.171	0.171	0.157	0.507	0.106	0.014	0.014	77.645
#1		APU	0.018	0.001	0.001	0.001	0.088	0.009	0.000	0.000	N/A
		GSE	1.272	0.043	0.039	0.041	0.102	0.003	0.002	0.002	N/A
Gulfstream II-B	SPEY Mk511 Transply IIH	Airport	2.589	0.632	0.632	0.599	1.491	0.217	0.046	0.046	159.570
#1		APU	0.178	0.003	0.003	0.003	0.031	0.006	0.000	0.000	N/A
		GSE	0.453	0.017	0.015	0.016	0.052	0.001	0.002	0.002	N/A
Gulfstream IV-SP	TAY611-8C Transply IIJ	Airport	2.027	0.153	0.153	0.145	1.032	0.182	0.018	0.018	133.719
#1		APU	0.178	0.003	0.003	0.003	0.031	0.006	0.000	0.000	N/A
		GSE	0.650	0.023	0.021	0.021	0.058	0.002	0.001	0.001	N/A

Exhibit M-5
Emissions from Airfield Activities during X Prize Cup Operations (tons)

Aircraft	Engine	Mode	CO	THC	NMHC	VOC	NOx	SOx	PM-10	PM-2.5	Fuel Con
Boeing 737-400	CPM56-3C-1	Airport	0.172	0.018	0.018	0.018	0.150	0.019	0.003	0.003	13.923
#1		APU	0.013	0.001	0.001	0.001	0.003	0.001	0.000	0.000	N/A
		GSE	0.195	0.007	0.006	0.007	0.020	0.001	0.001	0.001	N/A
Boeing 757-200	PW2037	Airport	0.258	0.046	0.046	0.043	0.380	0.037	0.009	0.009	27.282
#1		APU	0.005	0.001	0.001	0.001	0.012	0.001	0.000	0.000	N/A
		GSE	0.293	0.011	0.010	0.010	0.032	0.001	0.001	0.001	N/A
Bombardier Learjet	TFE731-2/2A	Airport	3.093	0.824	0.824	0.758	0.570	0.118	0.023	0.023	86.628
#1		APU	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		GSE	3.607	0.130	0.117	0.122	0.307	0.008	0.004	0.083	N/A
Cessna 550 Citatio	JT15D-4 series	Airport	0.258	0.159	0.159	0.146	0.013	0.005	0.003	0.003	3.378
		APU	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		GSE	0.151	0.005	0.005	0.005	0.014	0.000	0.000	0.000	N/A

Exhibit M-6
Maximum Annual Pollutant Emissions from Normal Operations (tons per year)

Category	CO	THC	NMHC	VOC	NOx	SOx	PM-10	PM-2.5
Aircraft	22.461	5.895	5.895	5.504	18.765	2.243	0.511	0.511
GSE	20.333	0.730	0.662	0.689	2.059	0.056	0.050	0.048
APUs	0.726	0.036	0.036	0.036	0.608	0.073	0.000	0.000
Parking Facilities	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roadways	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Stationary Sources	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Training Fires	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grand Total	43.553	6.661	6.594	8.229	21.432	2.372	0.562	0.559

Exhibit M-7
Maximum Annual Pollutant Emissions from X Prize Cup Operations (tons per year)

Category	CO	THC	NMHC	VOC	NOx	SOx	PM-10	PM-2.5
Aircraft	3.781	1.047	1.047	0.965	1.114	0.178	0.039	0.039
GSE	4.246	0.153	0.138	0.144	0.373	0.009	0.005	0.005
APUs	0.018	0.001	0.001	0.001	0.015	0.002	0.000	0.000
Parking Facilities	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roadways	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Stationary Sources	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Training Fires	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grand Total	8.045	1.202	1.187	1.110	1.502	0.190	0.044	0.044

Exhibit M-8
Maximum Annual Pollutant Emissions from All Airfield Operations (tons per year)

	CO	THC	NMHC	VOC	NOX	SOX	PM-10	PM-2.5
Total	51.60	7.86	7.78	7.34	22.93	2.56	0.61	0.60

REFERENCES CITED

FAA (Federal Aviation Administration). 2007. EDMS 5.0.2 - Emissions and Dispersion Modeling System. Office of Environment and Energy, Washington, D.C. June.

NYCC (Office of the New York City Comptroller). 2007. "Grounded: The Impact of Mounting Flight Delays on New York City's Economy and Environment." New York, NY. December.

Spalding, John B. and Gutman, William M. 2008. "Noise Analysis Methods and Results for the Spaceport America Environmental Impact Statement." January 18, 2008.

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Appendix N
PUBLIC COMMENTS AND FAA RESPONSES

N.1 Comment Documents

In accordance with NEPA and the implementing regulations of CEQ (40 CFR 1500-1508) the FAA initiated a public review and comment period for the Draft EIS for the Spaceport America Commercial Launch Site. Forty-three comment documents were received during the Draft EIS comment period. Comments received from NMSA, cooperating agencies, and from other lines of business within the FAA are not included in this appendix, but were addressed in the Final EIS where appropriate.

Several of the comment documents contained a comment on more than one issue. Therefore, in this section of the appendix the FAA has reproduced the full text of each comment document as provided by the commenter. No changes were made to the comment document to correct for grammatical or spelling errors. Specific comments within each comment document have been identified to allow for a specific response by the FAA.

Exhibit N-1 provides a summary of the comment documents received during the comment period for the Draft EIS. The FAA's responses to comments appear in the order the comment documents are listed in this exhibit, which is in the order received. Individual comments are denoted by a dash and the comment number, i.e., L1-001 is the first comment within comment document L1.

Exhibit N-1
Summary of the Comment Documents Received on the Draft Environmental Impact Statement

Letter Number	Name	Organization	Comment Method	Date Authored
L1	Jeffrey Hanson	Private Citizen	Email	06/27/08
L2	Joseph Cummins	Private Citizen	Email	07/02/08
L3	Mark Altaha	White Mountain Apache Tribe	Email	07/08/08
L4	Jim Manatt	Private Citizen	Email	07/09/08
L5	Rebecca Perry-Piper	Private Citizen	Mail	07/09/08
L6	Waltraude Waters	Private Citizen	Mail	07/09/08
L7	Piet deWitt	Private Citizen	Email	07/15/08
L8	George Jepson	Private Citizen	Mail	07/15/08
L9	Joseph Cummins	Private Citizen	Email	07/24/08
L10	Eric Fuller	Private Citizen	Email	07/29/08

Letter Number	Name	Organization	Comment Method	Date Authored
L12	Jeffrey Hanson	Private Citizen	Email	08/04/08
L13		The Hopi Tribe	Fax	08/04/08
L14	James Taylor	Private Citizen	Mail	08/06/08
L15	Jeffrey Hanson	Private Citizen	Mail	08/06/08
L17	Theodore Cooley	Private Citizen	Public Meeting Submission	08/09/08
L20	George Jepson	Private Citizen	Mail	08/06/08
L21	James Hayhoe	Spaceport America Consultants, LLC	Comment Form	No Date
L22	Jeffrey Hanson	Private Citizen	Comment Form	No Date
L23	Leigh Kuwanwisiwma	The Hopi Tribe	Mail	08/04/08
L24	Lynda Sanchez	Private Citizen	Email	08/14/08
L26	Carol Beckett	Private Citizen	Comment Form	No Date
L27	Catherine Kurland	Private Citizen	Email	08/13/08
L28	Jean Fulton	Private Citizen	Email	08/18/08
L29	Patrick Beckett	El Camino Real De Tierra Adentro Trail Association	Email	08/15/08
L30	John Wilson	Private Citizen	Mail	08/12/08
L31	Daniel James	Private Citizen	Email	08/16/08
L32	Cindy Goetz	Private Citizen	Email	08/17/08
L33	Robert Tafanelli	Mesilla Valley Audubon Society	Email	08/18/08
L34	Charles Goetz	Private Citizen	Email	08/18/08
L36	Sandra Tatum	Private Citizen	Email	08/18/08
L37	Wally Murphy	U.S. Fish and Wildlife Service	Mail	08/13/08
L38	Matt Wunder	State of New Mexico, Department of Game and Fish	Fax	08/18/08

Letter Number	Name	Organization	Comment Method	Date Authored
L39	Ti Hays	National Trust for Historic Preservation	Email	08/18/08
L40	Susan Krueger	New Mexico Heritage Preservation Alliance	Fax	08/18/08
L41	Scott Gardenhire	Private Citizen	Comment Form	No Date
L42	Cathy Gilmore	U.S. Environmental Protection Agency	Mail	08/18/08
L43	Sanford Schemnitz	Southwest Consolidated Sportsmen	Comment Form	08/18/08

To Stacey.Zee/AWA/FAA@FAA, <SRSEIS@icfconsulting.com>
cc

04/27/2008 12:13 PM Subject Re: Public Scoping Meeting - 2/15/2006

Dear FAA,

As previously mentioned to the FAA (see below - in this email) - I requested to be placed on the mailing list for all Spaceport EIS documentation in February 2006 (FAA's reply letter attached).

I read in today's paper and noticed that the EIS will be available for public comment in Truth or Consequences New Mexico on 8/6/2008. I am very surprised that the FAA has NOT kept me informed of the public meetings and the EIS process.

I would like to know why the FAA has disregarded my request to be part of the public EIS process for Spaceport America? L1-001

Please provide me a draft copy of the EIS for Spaceport America, and any and all notifications, news letters, announcements concerning the EIS process for Spaceport America.

Why has it taken 2 1/2 years to get this EIS process up and going? Is the EIS being prepared in accordance with NEPA requirements?

Respectfully,

Jeffrey Hanson

----- Original Message -----
From: Stacey.Zee@faa.gov
To: Jeff Hanson
Cc: SRSEIS@icfconsulting.com
Sent: Friday, March 07, 2008 11:44 AM
Subject: Re: Public Scoping Meeting - 2/15/2006

EIS preparation can take 24 months or longer. Public hearings will be held during the 45-day review period for the Draft EIS. The FAA will notify the public of the time and location of the hearings. The FAA also will distribute copies of the EIS to those who have requested the document.

Stacey M. Zee
Environmental Specialist
Commercial Space Transportation
Federal Aviation Administration

Comment L1. Page 1 of 3.

800 Independence Ave SW, Suite 331
Washington, D C 20591
(202)267-9305 voice (202)267-5463 fax

03/03/2008 11:11 AM

To Stacey Zee/AWA/FAA@FAA
cc <SRSEIS@icfconsulting.com>
Subject Re: Public Scoping Meeting - 2/15/2006

Stacey,

Thanks for the update. Will there be another public scoping meeting now because the EIS process has been delayed? It has been over two years since the last scoping meeting.

Also, during the EIS process, will the FAA provide news letters to the public concerning the process?

Regards,

Jeff Hanson

----- Original Message -----
From: Stacey.Zee@faa.gov

; SRSEIS@icfconsulting.com
Sent: Monday, March 03, 2008 7:58 AM
Subject: Re: Public Scoping Meeting - 2/15/2006

Mr. Hanson -

The Draft EIS for Spaceport America is still in development. The FAA plans to release the Draft EIS for public review in early summer 2008. We will mail you a copy of the Draft EIS for your review and notify you of any public meetings that may be held.

Thank you for your interest in this project.

Stacey M. Zee
Environmental Specialist
Commercial Space Transportation
Federal Aviation Administration
800 Independence Ave SW, Suite 331
Washington, D C 20591
(202)267-9305 voice (202)267-5463 fax

Comment L1. Page 2 of 3.

02/24/2008 12:53 PM

To:
cc: <SRSEIS@icfconsulting.com>; Stacey Zee/AWA/FAA@FAA
Subject: Public Scoping Meeting - 2/15/2006

From:
To: <SRSEIS@icfconsulting.com>
CC: <stacey.zee@faa.gov>
Subject:
Date: Sun, 24 Feb 2008 11:48:25 -0600

On February 15th, 2006 I attended a public scoping meeting in Truth or Consequences New Mexico concerning the Southwest Regional Spaceport (Spaceport America). It was my understanding that the FAA was the lead federal agency concerning the EIS for the Spaceport. I did submit a comment form that identified myself as wanting to be on the mailing list for all materials associated with the EIS process. Shortly after I attended the meeting I did receive in the mail a large envelop containing information from the FAA. It has been two years now, and I have not received any additional information, EIS updates, newsletters, or anything else.

Would you please provide me an update concerning the FAA's intentions concerning Spaceport America and the EIS process. What is the status? Is the EIS in the draft states? When will there be another public meeting here?

See attachment for info about the public meeting held on 2/15/06.

Respectfully,

Jeffrey Hanson

Comment L1. Page 3 of 3.

Response to comment letter L1:

L1-001

The article printed in the Sierra County Sentinel on June 27, 2008, was published prior to the formal notice by the Environmental Protection Agency in the Federal Register of the availability of the Draft EIS for public review, which appeared in the Register on July 3, 2008. As described in the email that the FAA sent you on June 27, 2008, as a reply, the Draft EIS was being printed and distributed the week of July 3rd and you were included on the mailing list to receive a copy. You should have received your copy by the following week.

L1-002

The EIS process and document follow the Council on Environmental Quality's regulations for National Environmental Policy Act implementation (40 CFR 1500-1508). Any perceived delays were caused by ensuring that all necessary steps were followed and that the EIS addressed all potential environmental impacts from the proposed project as planned.

07/02/2008 04:23 PM

To Stacey Zee/AWP/FAA@FAA
cc
Subject NM Spaceport EIS

Ms Zee:

I just rec'd the 6-27-08 issue of the Sierra County Sentinel newspaper, which ran a 1/4 page article about the upcoming August public hearing/comment in August.

Have you began sending out the EIS draft to those like me who have made previous comments and are very concerned that this spaceport authority and various green/wilderness organizations are going to limit any commercial (mining) activity in the Caballo Mts and the Jornado, but allow the spaceport? L2-001

I sincerely look forward to your reply.

Thanks for all your past consideration.

Respectfully,
Joseph Cummins
Carrollton, GA

Comment L2. Page 1 of 1.

Response to comment letter L2:

L2-001

The article printed in the Sierra County Sentinel on June 27, 2008, was published prior to the formal notice by the Environmental Protection Agency in the Federal Register of the availability of the Draft EIS for public review, which appeared in the Register on July 3, 2008. The Draft EIS was being printed and distributed the week of July 3rd and you were included on the mailing list to receive a copy. You should have received your copy by the following week.

White Mountain Apache Tribe Heritage Program
PO Box 507 Fort Apache,AZ 85926

To: FAA Spaceport America EIS
Date: July 08, 2008
Proposed Project: Draft EIS for the Spaceport America Commercial Launch Site, Sierra County, NM.

The White Mountain Apache Historic Preservation Office (THPO) appreciates receiving information on the proposed project, dated June 25, 2008 In regards to this, please attend to the checked items below;

► *There is no need to send additional information unless project planning or implementation results in the discovery of sites and/or items having known or suspected Apache Cultural affiliation.*

☐ The proposed project is located within an area of probable cultural or historical importance to the White Mountain Apache Tribe (WMAT). As part of the effort to identify historical properties that maybe affected by the project we recommend an ethnohistorical study and interviews with Apache Elders. The Cultural Resource Director, *Mr. Ramon Riley* would be the contact person at (928) 338-4625 should this become necessary.

☐ The proposed project is located within or adjacent to a known historic property of cultural concern and/or historical importance to the White Mountain Apache Tribe and will most likely result in adverse affect to said property. Considering this, please refrain from further steps in project planning and/or implementation.

► Please refer to the attached additional notes in regards to the proposed project:

We have received and reviewed information regarding the Federal Aviation Administration's (FAA) Draft Environmental Impact Statement (EIS) for the Spaceport America Commercial Launch Site, near Upham, Sierra County, New Mexico, and we've determined the proposed action *will not have an effect* on the White Mountain Apache tribe's Cultural Heritage Resources and/or historic properties. The project may proceed with the understanding that all ground disturbance should be monitored *if* there are reasons to believe subsurface artifacts are present, and in the event subsurface materials and/or human remains are encountered all construction activities are to be stopped and the proper authorities and/or affiliated tribe(s) be notified to evaluate the situation. L3-001

We look forward to continued collaborations in the protection and preservation of places of cultural and historical significance.

Sincerely,

Mark T. Altaha
White Mountain Apache Tribe
Historic Preservation Officer
1 (928) 338-3033 Fax: 338-6055

Comment L3. Page 1 of 1

Response to comment letter L3:

L3-001

Thank you for the information. This information has been added to the Final EIS in Section 3.5.4.3.

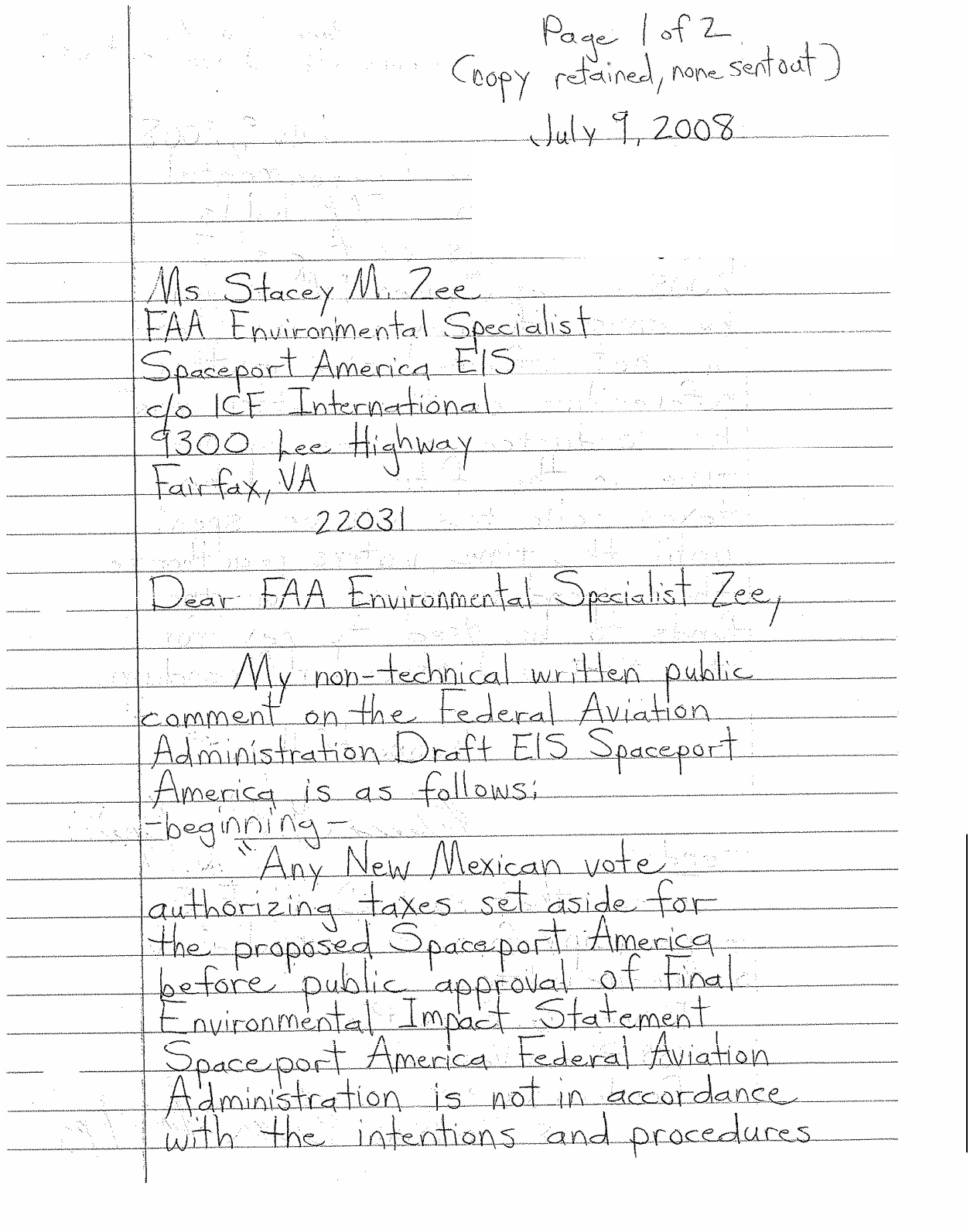
I support the current draft, particularly with reference to the current wording of the cultural resource preservation. Spaceport America has committed to careful attention to the Camino Real and minimal impact. Spaceport America has considered minimal impact in all design considerations, including locating the visitor centers off-site with careful staging and public education. It seems that fair effort and consideration is just never enough to some with narrow special interests, who simply want to make things difficult.

Jim Manatt
Roswell, New Mexico

Comment L4. Page 1 of 1

Response to comment letter L4:

Thank you for your comment.



Page 1 of 2
(Copy retained, none sent out)

July 9, 2008

Ms Stacey M. Zee
FAA Environmental Specialist
Spaceport America EIS
c/o ICF International
9300 Lee Highway
Fairfax, VA
22031

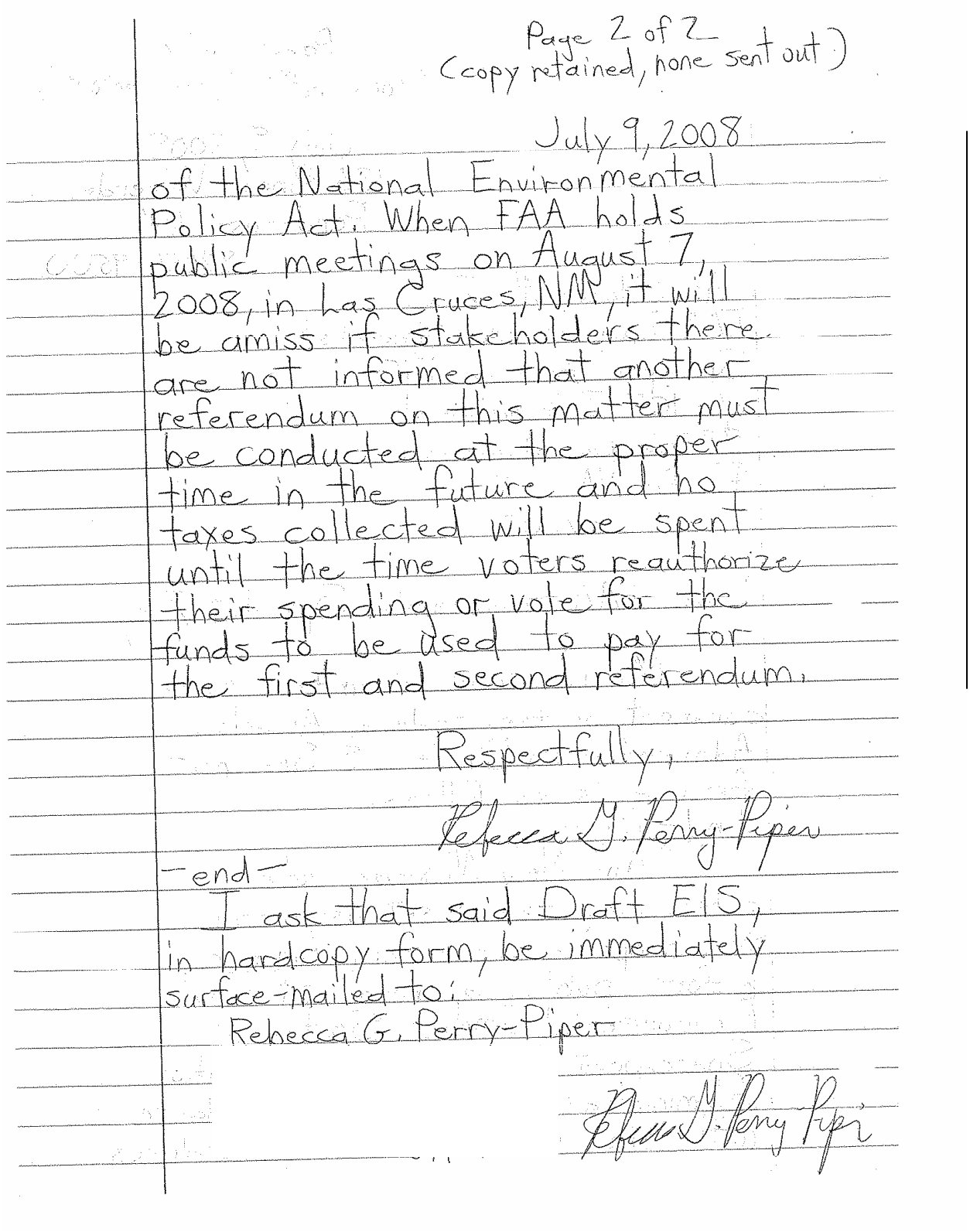
Dear FAA Environmental Specialist Zee,

My non-technical written public comment on the Federal Aviation Administration Draft EIS Spaceport America is as follows:
-beginning-

"Any New Mexican vote authorizing taxes set aside for the proposed Spaceport America before public approval of final Environmental Impact Statement Spaceport America Federal Aviation Administration is not in accordance with the intentions and procedures

L5-001

Comment L5. Page 1 of 2.



Page 2 of 2
(copy retained, none sent out)

July 9, 2008

of the National Environmental Policy Act. When FAA holds public meetings on August 7, 2008, in Las Cruces, NM, it will be amiss if stakeholders there are not informed that another referendum on this matter must be conducted at the proper time in the future and no taxes collected will be spent until the time voters reauthorize their spending or vote for the funds to be used to pay for the first and second referendum.

L5-001

Respectfully,

Rebecca G. Perry-Piper

-end-

I ask that said Draft EIS, in hardcopy form, be immediately surface-mailed to:

Rebecca G. Perry-Piper

Rebecca G. Perry Piper

Comment L5. Page 2 of 2.

Response to comment letter L5:

L5-001

The FAA is not involved with the funding measures undertaken by the license applicant. The passage of any referenda on taxes or other funding sources does not influence the FAA's analysis of environmental impacts in the EIS, nor does it influence the decision the FAA must make with regard to the Record of Decision on the license application.

Zip 87901
July 9, 2008

Dear Stacey M. Zee;

This Spaceportamerica Commercial Launch Site is not a good thing for Sierra County.

I am concerned about pollution and green house gases. 30 years ago my daughter had Total allergy Syndrom to pollution. There were very few places that we could move to with out pollution, now there are even less.

People move here because of their health and our clean air.

In Jan. 20th, 08 on CBS, there was a Special Edition on global warming. They said how we humans were causing the pollution with our planes, Trains, cars, industry etc. This global warming is causing the earth to get hotter & hotter, plus extra extreme climate changes. This Mr. Hansen, one of many scientists who had studied all of this for over 30 yrs., said, "We have to cut back on green house gases now, or it will be too late." He had sent his report to the White House, but they were ignored. He was also told not to open his mouth about it. He told this and more, on CBS.

Comment L6. Page 1 of 2.

II

Because all these scientists, and AL Gore, and environmentalists have brought this to our attention about global warming. Why aren't we cutting back? We really don't know what kind of Toxic propellants they will use for fuel at the space port, but we do know that all fuel will pollute!

I am also concerned about the dangers to the surrounding areas. Tests can go wrong, and put all of us in danger. Would Elephant Butte Dam and Caballo Dam be in danger? They're old and already have cracks in them. These Dams control the water that the farmers use on their farm land in the Valley. Would the rockets and other launches at the space port pollute the Valley and the Vegis? We really don't want the space-port in Sierra County, N. Mex. Our clean air, good health, less global warming, and our safety is more important to us.

Sincerely yours,

Waltraude Waters

L6-001

L6-002

Comment L6. Page 2 of 2.

Response to comment letter L6:

L6-001

The Air Quality analysis (Section 4.6) addresses propellants and whether impacts would occur.

Commercial launch operators would be required to obtain a license or permit to conduct launches from the site. Commercial launch operators would be required to provide the FAA with flight hazard information. The FAA would analyze the hazards as appropriate.

L6-002

Thank you for your comment.

07/15/2008 06:51 AM

To Stacey Zee/AWA/FAA@FAA
cc
Subject "Spaceport America"

Good morning, Ms. Zee. On 7/3/08 EPA announced the availability of a draft EIS for the "Spaceport America Commercial Launch Site" (73 FR 38204). We are trying to locate the FAA's Notice of Intent to prepare that EIS. We have found a Notice of Intent to prepare a Programmatic EIS on "Launches and Reentries Under an Experimental Permit" published in the Federal Register on 3/27/06. Is this Notice of Intent the notice for the "Spaceport America" EIS? Thank you for your assistance. Piet deWitt

L7-001

Get the scoop on last night's hottest shows and the live music scene in your area - Check out TourTracker.com!

Comment L7. Page 1 of 1.

Response to comment letter L7:

L7-001

The FAA's Notice of Intent for the Spaceport America (previously known as the Southwest Regional Spaceport) EIS was published in the Federal Register on January 24, 2006. Scoping meetings were held in Truth or Consequences, New Mexico on February 15, 2006, and in Las Cruces, New Mexico on February 16, 2006.

July 15 2008

Stacey M. Zee
FAA Environmental Specialist
Spaceport America

RE: Proposed Horizontal Vehicle Launch Facility (Runway)

Dear Ms. Zee:

I am a strong proponent of Spaceport America but am heartsick over the lack of wind data, or references to same, in the Draft Environmental Impact Statement. Wind data collection and presentation, in the form of a Wind Rose, is necessary for proper alignment of the HVL Runway, with respect to site specific wind characteristics. Without this data, there is no aeronautical justification for the proposed Runway location. Proper alignment is a safety issue. The location of all other facilities, at the proposed Spaceport, hinge on the location of the Runway.

The minimum wind data needed is for that of the strong, Spring winds. These are unique to each location along the valley floor. Sadly, the opportunity to collect Spring wind data for this location has passed us by until the Spring of next year. This is data that cannot be taken from other sites, such as the White Sands Missile Range or nearby municipal airports. They are in different valleys with their own unique topography and wind pattern characteristics.

L8-001

I pray that there is convincing rational for the failure to collect wind data; and that failure to consider wind patterns in the HVL Runway alignment will not compromise safety.

Respectfully,

George T. Jepson

George T. Jepson

Comment L8. Page 1 of 3.

To: The Federal Aviation Administration
Fairfax, Virginia

From George T. Jepson

George T. Jepson 7/15/08

Comment on the Spaceport America Draft Environmental Impact Statement; Specifically on the Horizontal Vehicle Launch Runway

Having reviewed Environmental Impact Statement(s) professionally, as an Urban and Regional Planner in the Northeast, I was curious as to what the wind data looked like in the subject Valley. This Valley has different wind conditions from that of the parallel but separate Valley to the east that contains the White Sands Missile Range and that of the parallel but separate Rio Grand Valley to the west. The three parallel valleys are separated by north-south running mountain ranges. Each valley has its own fluky crosswinds.

To my great dismay, **I found only a brief mention of wind.** Please see **Section 3.6.4.1 Climate and Meteorology, on page 3-52 thru 3-53. There is no mention of wind direction, speed or duration. It is impossible to argue for or against the proposed orientation of the Horizontal Launch Runway without wind data sufficient to construct a proper Wind Rose. The proposal could be "dead on" or "dead wrong".** L8-001

Spaceport America is to be located at a specific site. This site has a broad arroyo with both elevated land and flat land just to the west of the proposed complex. There is a mountain range to the east. These topographic features do influence wind speed and direction unique to this site. **We are constructing a runway here which must serve** (according to the EIS) **the take-off and landing of a wide variety of aircraft types. The orientation of the runway must be such that it provides the maximum level of safety possible. Reliable wind data is absolutely necessary to achieve this.** The only mention of a weather station is of one located on a ranch just north of the Spaceport.

Two criteria are given for the proposed orientation of the runway: To distance the complex from the National Historic Trail and; To keep the runway parallel to the 356KV Transmission Line. These criteria (and I respect them) appear to have wholly dictated the orientation of the runway. Are we subjecting the proposed runway to unnecessary exposure to unknown crosswinds? Unfortunately, we cannot know this without proper wind speed, direction and duration data. A Spaceport proposal for this site has been churning around for years and **no one thought to collect the crucial data on the wind?**

Comment L8. Page 3 of 3.

Comment to be made at the Hearing

My comment pertains to the location of the
Horizontal Vehicle Launch Runway

Upon review of the Draft Environmental Impact Statement
I was dismayed at not finding wind data
Or references to same
Or the presentation of a Wind Rose
Both normally thought essential
To Runway alignment considerations

You can't tell me that the Runway alignment
Will be just fine because you don't have the
Data to back it up

You can't tell me that Missile Range
Wind data was used If you did
you would have least made reference to it

Runway alignment is a safety issue
And a logistical issue

The location of all other structures hinge
On the location of the Runway

Logistics and scheduling hinge on
Proper Runway alignment

George A Jepson
7/15/08

Comment L8. Page 3 of 3.

Response to comment letter L8:

L8-001

14 CFR Part 420, Subpart B outlines the criteria and information requirements for obtaining a Launch Site Operator License. An applicant is required to provide environmental information, launch site location information, an explosive site plan, and launch site operations that provide the information necessary to demonstrate compliance with requirements outlined in the regulation. The applicant is not required to provide wind data to the FAA to obtain a Launch Site Operator License.

Farfel, Shaina

From: Stacey.Zee@faa.gov
Sent: Thursday, July 24, 2008 10:39 AM
To: Spaceport America EIS
Cc: Farfel, Shaina; Woods, Hova
Subject: Fw: Spaceport EIS Comments
Attachments: 1Vree2.jpg; 1vree11.jpg; MVI_0094.mpg

--- Forwarded by Stacey Zee/AWA/FAA on 07/24/2008 10:37 AM ---

07/22/2008 06:09 PM

To Stacey Zee/AWA/FAA@FAA
cc
Subject Spaceport EIS Comments

Ms. Stacey M. Zee
FAA Environmental Specialist
Spaceport America EIS
c/o ICF International
9300 Lee Highway
Fairfax, VA 22031
E-mail: SpaceportAmericaEIS@icfi.com

Draft Environmental Impact Statement for the Spaceport America Commercial Launch Site, Sierra County, New Mexico
June 2008
http://www.faa.gov/about/office_org/headquarters_offices/ast/licenses_permits/htm/sw_spaceport_eis/

Although I am not blessed with a command of the English language or the legal credentials of an attorney I offer the following comment data relating to what I found within the contents of this EIS.

SUMMARY OF **MY COMMENTS**

First, I would like to state that my primary reason for offering My Comments is to avoid any possible misunderstanding by publically stating that I am focused upon exploitable minerals/metals that appear to reside in at least a 20 mile long x 20 mile wide x hundreds to thousands of feet deep in the visible area of the proposed spaceport. So, with the aforementioned in forefront of thoughts My Comments are concentrated upon how/why this EIS has regarded the metals/minerals, mining and mining claim owners.

7/24/2008

Comment L9. Page 1 of 30

Second I'd like to thank Ms. Stacey Zee who has acted very responsibly and always promptly communicated with me.

Over-all Issues of concern:

1. Based upon careful examination of this EIS I discovered issues relating to stakeholders that have not been given due consideration within this EIS.

2. Despite the fact that this EIS is laborious to read and deceptively difficult to decipher, contains subtle hostility and veiled implications regarding potentially competing commercial activities on or around adjoining BLM land next to the proposed spaceport I have tried to not imply any disrespect in my comments towards the NMSA.

3. I recognize that the spaceport can become a potential valuable contribution for Sierra County, but I don't want the desires of NMSA to squash my or any other American dream.

4. Why can't the land within the visual boundaries of this proposed spaceport also be utilized by all stakeholders instead of selectively limiting the lands to a few ranchers, residents, spaceport activity, occasional tourists and the so-called historic trail? L9-001

Specific Issues of concern:

1. While reading and trying to decipher this cryptic 500 page EIS document a huge question surfaces – why do the objectives of the NMSA appear to be different than what the spaceport claims to embrace? For instance: the NMSA alleges that the primary purpose of the proposed spaceport is 1) stimulate economic activity, 2) create employment opportunities, 3) advancement of technology, 4) generating local tourism, 5) making NM a world class act, and 6) capitalizing on space tourism. Yet, this EIS appears to be intentionally discounting natural resource commercial activity (mining) that could provide benefits equaling or surpassing the proposed spaceport without the financial debt burden. L9-002

I read nothing in this EIS mentioning how an alternative spaceport located in another state could create a destructive socioeconomic situation to Sierra and Dona Ana counties if main businesses were lured away from NMSA. Therefore, I wonder why this subject has not been adequately dealt with to avoid catastrophic socioeconomic threats?

2. This EIS appears to be carefully designed so that the uninformed reader would be led to believe that mining, including oil/gas exploration is only a historical and irrelevant by-gone curiosity. Clearly, what was overlooked or not discovered 10, 20 or 100 years ago cannot preclude today's technological potential discoveries. Therefore, for this EIS to infer that minerals are not present is not a valid innuendo. Thus, this EIS does not meet scientific standards and therefore this NMSA EIS does not deserve approval or being granted a license from the FAA. L9-003

3. Mining (harvesting the metals) should not be relegated to a historical dustbin and deserves at least equal importance with the spaceport if for no other reason than mining and utilizing metals is what separates man from animal, has helped create our current civilized standard of living that without strategic metals (pgms, etc.) there would be no need of a spaceport. L9-004

4. The proposed spaceport should be held to the same standards the state utilizes towards the mining community to avoid appearing to be practicing favoritism at the expense of the people.

5. Currently, it appears to me that the states' environmental departments biased mindset of eliminating or

Comment L9. Page 2 of 30

having no mining activity is aiding America's enemies and causing unnecessary price rises of all natural resources. Therefore, continuing to utilize crafty rhetoric that is in my opinion anti-mining activity in the Jornada del Muerto area is not only un-American, anti-human, but might one day be considered criminal..

6. My comprehension of an EIS is that it is supposed to be a detailed study that specifically analyzes the pluses and minuses relating to the entirety of the environmental effects. Therefore, to discriminate as this EIS does against mineral/metal exploitation the appearance of an agenda seems to predominate instead of a fairly and accurately presented EIS. L9-005
The National Environmental Policy Act (NEPA) provides for the consideration of environmental issues in Federal agency planning and decision making. NEPA requires that major Federal actions be examined for both individual and cumulative environmental impacts. An Environmental Impact Statement (EIS) is a detailed public document that provides an assessment of the potential impacts a Federal action might have on the human or natural environment. The EIS also informs decision makers and the public of the potential environmental impacts of reasonable alternatives

7. According to my understanding a SIP (Stakeholder Involvement Process) is to assist in developing a range of alternatives for an EIS. Yet, I saw nothing within past or this EIS that mining stakeholders were consulted with SIP. In fact, everything I know suggests that the NMSA went to great lengths to not involve mining claim stakeholders. Not once am I aware of did the NMSA contact mining claim owners that could/would be affected by this spaceports' activities. Clarifying further – all local mining claim owners are registered with the BLM and the NMSA could have easily contacted all mining claim owners within visible view of the proposed spaceport activities. Furthermore, I asked to be included in the process, but was, in my opinion intentionally left-out. Apparently, because I am only a prospector with mining claims in the vicinity the NMSA did not want my participation. Therefore, because of this reality and finding no evidence of provisions within this EIS protecting the interests of mining claim stakeholders this entire EIS should become void and another EIS initiated with all the stakeholders able to participate in the creation of an EIS that reflects the people and not merely the interests of NMSA and the El Camino Real (see ES-18) L9-006

I am very concerned that if this EIS is found acceptable and the NMSA is granted a license then NMSA under some pretense will eliminate the prospector, mining claim holder and future mining. Therefore, it is imperative that this EIS is rejected to protect all commercial interests that will or might occur within the entire area (30 miles North, South and West) of the proposed spaceport area. Furthermore, the State needs to re-examine the validity of not mining the potential under the spaceport area, because it too appears to contain tremendous valuable mineral reserves.

8. It is my understanding that one of the aims of an EIS is to be specific, yet this NMSA EIS contains such ambiguous terminology as – COULD (235 times), MAY (180 times), MIGHT (18 times), SHOULD (40 times), POSSIBLE (53 times) and APPROXIMATELY (160 times). Therefore, if my understanding of the intent of an EIS has merit this EIS should be discarded as unreliable.

9. The general area of the Caballo Mts and the Jornada del Muerto has historically been and currently is a treasure hunters paradise.

Although I don't believe in the yarns, stories and tales of fabulous riches (stacks of smelted gold/silver bars) in the general area of the proposed spaceport treasure hunters have the right to seek the American dream just as much as mining companies or the thrill of a joy-ride into space. Similarly, it's a well known reality that academia and public servants barely tolerate the presence of these treasure hunters who are a form of tourism that contributes to the local economies and thus deserve a presence in the construction of an EIS that also reflects their views. Failure to consult with all stakeholders is in my opinion an obvious L9-007

Comment L9. Page 3 of 30

show of disrespect for all interested stakeholders. Furthermore, the Las Cruces BLM officers know about these treasure hunters and have for many years been accepting their claim notices and as of 1993 collecting the annual BLM mining claim maintenance fees (100+ dollars per claim). Therefore, regardless of the legitimacy of these treasure hunters the mere fact that they have been historically active has set a precedent for their stakeholder presence, which the NMSA has failed to recognize. Thus, this EIS should be scrapped and all stakeholders who constantly utilize these public lands should be allowed participation in the EIS document construction. L9-007

10. Based upon everything within this EIS pertaining to land use I have chosen to say that the No Action Alternative is the only viable option if the residents of southern New Mexico want a life exceeding everything they have imagined. Choosing any other option appears to me that the people of New Mexico and the USA will forfeit both significant opportunities and a superior standard of living. L9-008

NOTICE
I have attached a short 3mb video clip that digitally illustrates visual proof that Osmium is hosted in the general area of the proposed spaceport. In addition to the video are a couple attached images of the instrument (Vreeland Spectrex Spectroscope with a 12mp Canon A650IS Camera) used to generate the video. I chose Osmium because it is not a well known platinum group metal and because it is becoming increasingly technologically important to a variety of applications that until recently was not even conceived.
Note: The **Os** (Osmium) is on the right side of film and has been properly oriented to the bright sodium doublet (2 parallel center) lines, whereas the Cs (Cesium on left side) has not been properly oriented and is therefore not relevant. While watching the video there will be seen no bright spectrum lines at the beginning of presentation, but will quickly begin to show and match-up with 3 lines in the **Os**. I have other video's that show more spectrum lines for Os, but take too much time to send by email.
It would take too many pages to adequately explain the numerous how's and why's regarding the mechanics/validity of this instrument or the visible/invisible spectrum that all elements display. Having said this – the simplicity is – if an element is not present there won't be any matching lines, thus avoiding abundant errors that plague all prospectors. For additional bits of information about this PGM discovery read my comments and the conclusion (at end) of this document.

EIS PUBLIC COMMENT regarding the Draft Environmental Impact Statement for the Spaceport America Commercial Launch Site, Sierra County, New Mexico.
June 2008
http://www.faa.gov/about/office_org/headquarters_offices/ast/licenses_permits/htm/sw_spaceport_eis/

For clarification – **My Comment(s)** are in a **bolded** "Times New Roman" font format, whereas the EIS wording used herein is also "Times New Roman" but *italicized*.

Executive Summary.—Page ES-1
Purpose and Need
The need for the project proposed by NMSA is to establish a long-term source of economic development in southern New Mexico that is based on high technology and can be used to develop educational opportunities. State-sponsored studies have shown great potential benefits to the State in terms of jobs, as well as direct and indirect economic impact. To be successful, the project must meet the expected needs of the commercial space transportation industry for both vertical and horizontal suborbital launch capacity. Several commercial space transportation providers have made commitments to the State

7/24/2008

Comment L9. Page 4 of 30

contingent on the State's ability to provide the licensed launch facility in a timely way. They have done so because of the inherent advantages offered by the State's proposed site, which features a dry and sunny climate, 4,500-foot launch pad elevation, low population density, contiguous sections of available land, and access to the restricted airspace over nearby WSMR.

My Comment:

This spaceport might well establish long term economic gains, but to imply that this particular "high technology" methodology is superior or better than any other commercial endeavor is at best misleading. I find that by inferring other commercial endeavors, such as mining are technologically inferior to be not only repugnant, but bordering upon elitism. Furthermore, spending taxpayer's monies for the self-aggrandizement of the state's superior intellect to justify potential future benefits has the ear-marks of being able to forecast the future, which, so far no one can do. L9-009

Page ES-3

The purpose of the FAA action in connection with NMSA's request for licensure is to ensure compliance with international obligations of the U.S. and to protect the public health and safety, safety of property, and national security and foreign policy interest of the U.S. during commercial launch or reentry activities;

My comment:

Granting a license is great as long as the US national security interest are wholesome and not merely a portion of the health and safety of the American people. Furthermore, the words "*national security***" would surely include any other commercial enterprise, such as mining strategic metals that the United States depends upon. In addition the words "***safety of property***" could and should just as easily be described as protecting the land for other or unforeseen commercial enterprises that will "***protect the public health and safety***" by creating the means for a secure financial future. Consequently, this EIS does not completely meet the test of protecting the public's over-all interests and the NO ACTION ALTERNATIVE should be chosen.** L9-010

Environmental Consequences of the Proposed Action and Alternatives
Analysis Methodology – Page ES-5

Eleven resource areas were considered to provide a context for understanding and assessing the potential environmental effects of the Proposed Action, with attention focused on key issues. The resource areas considered included compatible land use; Section 4(f) properties and farmlands; noise; visual resources and light emissions; historical, architectural, archaeological, and cultural resources; air quality; water quality, wetlands, wild and scenic rivers, coastal resources, and floodplains; fish, wildlife, and plants; hazardous materials, pollution prevention, and solid waste; socioeconomics, environmental justice, and children's environmental health and safety risks, and energy supply and natural resources.

My Comment:

Although the nebulous term "natural resources" is used there is no definition of what "*natural resources***" is actually meant to be and there is no mention of mining activity, but there is for oil and gas. Again the terminology "***compatible land use***" is utilized to describe something nonspecific and no mention of mining activity. Therefore, due to the obvious ambiguity either this EIS is re-constructed or the NO ACTION ALTERNATIVE is chosen.** L9-011

Cumulative Impacts of the Proposed Action – Page ES-6

Cumulative impacts are "the incremental impact of the actions when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions (40 CFR 1508.7).

7/24/2008

Comment L9. Page 5 of 30

My Comment:
First – this EIS draft assumes that an average person intellectually grasps what is stated herein, which I find hard to believe. Furthermore, the summary on page ES-6 indicates that all the nuances (references to other Federal regulations NEPA & CFR) are understood by those who read this EIS, despite the probability that lawyers crafted the language used herein. Therefore, is it fair to the average person to be expected to know not only where to examine NEPA & CFR, but, to know the actual meaning of the language that sometimes results in lawyers debating the terminology? L9-012

Second – Strange that ranchers, rivers, animals, Historic trail and oil/gas are mentioned, but not a single word about mining? Is this because they are biased against mining? Or, maybe, the NMSA with this EIS intends to eliminate all potential mining in the visible surrounding area. Therefore, because the designers of this EIS are obviously intelligent and knowledgeable people the only conclusion I can draw is that mining was intentionally left out, thereby I can only assume that mining valuable/strategic minerals/metals won't be allowed. Consequently, due to this grievous display of arrogance either this EIS is completely re-constructed to reflect the reality of valuable metals being present and accommodated within a new EIS or that the NO ACTION ALTERNATIVE be the only valid option. L9-013

Historical, Architectural, Archaeological, and Cultural Resources – Page ES-10
The Memorandum of Agreement (MOA) and the measures contained within it would resolve these effects and reduce the impacts to a less than significant level.

My Comment:
I have asked for these MOA & MOU's and all I get is the run-around. Where can I review these documents so that I can make informed comments? L9-014

Socioeconomics, Environmental Justice, and Children's Environmental Health & Safety Risks – Page ES-12
The Proposed Action would not have any significant negative impacts to socioeconomics. There are no disproportionate high and adverse impacts to minority or low income populations expected from construction or operation. The potential environmental health impacts and safety risks from the construction and operation would not be expected to disproportionately affect children.

My comment:
When examining the current USA economic landscape where rising fuel costs, escalating food prices, plummeting real-estate values, mounting debt, bankruptcies and evaporating jobs, tourists staying home the idea of finding investors for municipal bonds seems a bit far fetched. Consequently, this EIS does not address the reality of the current economic situation nor does it provide insurance that the socioeconomic life of southern NM residents will be improved. Therefore, this EIS should not be acceptable until it addresses the current deteriorating financial reality. L9-015

In addition, the statement *"The Proposed Action would not have any significant negative impacts to socioeconomics"* **I find to be ludicrous, because if mining and harvesting the PGMs with the newest technology is not allowed there will be an extremely serious socioeconomic impact upon not only residents of Sierra County, but upon the entire state.**

What about the risk of thyroid troubles for local children and lactating mothers from the rocket gases are dangerous? This potential problem needs clarification before the FAA issues a license and the NO ACTION ALTERNATIVE be selected. L9-016

Historical, Architectural, Archaeological, and Cultural Resources—Page ES-14
My Comment:

7/24/2008

Comment L9. Page 6 of 30

All land has historical characteristics if for no other reason than the land was present before humans. The concept of historical importance is based upon a perspective not shared by everyone and conjuring-up this terminology to allow or disallow any form of commercial enterprise is merely a way to control human activity and should be thrown in the garbage can for what it is – junk. In other words for the NMSA to be allowed to use the trail, so should everyone else, including all un-related commercial activity. This EIS fails to identify specifics and does not deserve acceptance in its current form. L9-017

Fish, Wildlife, and Plants – Page ES-15
My comment:
This section has multiple doors by which to escape or establish new guidelines that a mining company would not be permitted.

Energy Supply and Natural Resources – Page ES-16
There are no expected impacts to energy supply and use or natural resources supply and availability from implementation of the Proposed Action. Since there are no potential impacts expected from the Proposed Action, there are no cumulative impacts anticipated either.
My Comment:
I don't understand the basis of the analysis if this section is describing associated mineral exploration and harvesting, such as mining and oil/gas extraction on BLM lands near to the spaceport.
It appears to me that the NMSA is claiming that no valuable metals will be mined, which makes me ask – what type of analysis was utilized to make this conclusion? Did the NMSA conduct a geological & analysis of the rock formations on the state land or adjoining BLM land? If so, why has this detailed analysis not been made public? Clearly, based upon my multi-year research this statement is INVALID. Consequently, either a new EIS is required or the NO ACTION ALTERNATIVE is to be chosen by the FAA. L9-018

Mitigation Measures – Page ES-16
The only resource area for which the impact from the Proposed Action would exceed the applicable threshold of significance is Historical,
My Comment:
This statement is either intentionally biased or based upon ignorance. If ignorance of the facts is how this statement has been chosen then the NMSA has not done sufficient homework to initiate this EIS. I have attempted to suggest to the NMSA that mining is a viable, but for some strange reason the NMSA never once asked me for any data regarding potential mining validity. Therefore, this EIS needs to be re-constructed reflecting reality or the NO ACTION ALTERNATIVE must be invoked. L9-019

Mitigation Measures and Other Measures – Page ES-17
Providing busses for visitors and tourists, especially during the X Prize Cup event, and controlling vehicle use associated with Spaceport America activities and events within the limited developed land areas;
My Comment:
To me this statement is at best non-specific, because there is no definition of what "controlling vehicle use" actually means. For instance – does this mean that access to the general area outside the state land will be controlled, and if so does "controlling" mean that the NMSA or some political L9-020

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agency will not allow any vehicular traffic in the Jornada del Muerto? Regardless of the intent I suggest that clarification is made public before approval of this EIS or the NO ACTION ALTERNATIVE is chosen. L9-020

Mitigation Measures and Other Measures – Page ES-17
Providing busses for visitors and tourists, especially during the X Prize Cup event, and controlling vehicle use associated with Spaceport America activities and events within the limited developed land areas;
My Comment:
It appears that the intent is to control how humans travel into the Jornada del Muerto, which I think is abhorrent and unconstitutional. Furthermore, again ambiguity reins supreme over why and how vehicle use will be allowed into the Jornada del Muerto. Therefore, either a new EIS is constructed that does not have all this ambiguity and spells out exactly and specifically what the NMSA intends to do with human and vehicle traffic in the Jornada del Muerto, or the NO ACTION ALTERNATIVE is chosen. L9-021

Mitigation Measures and Other Measures – Page ES-17
Developing a state management plan for those portions of the NHT located on State Trust Land;
Developing a Cultural Resource Management Plan to ensure long term protection of resources within the project boundaries;
My Comment:
Why hasn't a *state management plan* **already been completed prior to this EIS? Could it be that this** *state management plan* **will have ways listed to limit or eliminate human and vehicular traffic to and from the state-land? More deliberate ambiguity and thus this EIS should not be approved and the NO ACTION ALTERNATIVE chosen.**
What would a *Cultural Resource Management Plan* **entail and contain? More deliberate ambiguity and this EIS should be totally scrapped and the NO ACTION ALTERNATIVE chosen.** L9-022

Mitigation Measures and Other Measures – Page ES-18
Developing public activities in coordination with El Camino Real International Heritage Center.
My Comment:
Why does this *Heritage Center* **have more apparent rights than mining claim stakeholders?**
To further show how the NMSA has chosen to disregard by not contacting and including mining claim stakeholders the "New Mexico Spaceport Authority Announces Formal Collaboration with Federal Agencies, Nonprofit Groups, Regarding El Camino Real L9-023
March 28, 2007
SANTA FE – The Bureau of Land Management, the National Park Service, and CARTA, the non-profit advocacy group for El Camino Real, have accepted an invitation from the New Mexico Spaceport Authority to collaborate on specific ways to protect and preserve the historic El Camino Real in the Jornada del Muerto and to maximize joint education and marketing programs, according to Rick Homans, Chairman of the NM Spaceport Authority.
The NM Spaceport Authority has already made specific proposals that will help to protect and preserve the trail and enhance the viability of the spaceport, Homans said.
These proposals include:
▪ a 20-mile no development zone that would be developed in conjunction with Sierra County, Dona Ana County, State Land Office, Bureau of Land Management, CARTA and private landowners;
▪ limiting vehicle traffic near El Camino Real and into the spaceport by providing visitor/welcome center and park-and-ride facilities in Hatch and Truth or Consequences;

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▪ using the spaceport's agreements with local ranchers and the lease with the State Land Office to limit future road easements and mineral exploration, and to ensure that area ranching operations stay viable and public lands are used for grazing;
▪ setting a future goal of putting underground a large segment of the massive 345-kv powerline that runs through the middle of the Jornada del Muerto;
▪ making a commitment to have a single entry point to the spaceport that would use an existing county road to cross El Camino Real."

It should be obvious to anyone that the NMSA is intentionally disregarding mining claim stakeholder's active interests in the Jornada del Muerto and surrounding adjacent Public Lands. Therefore, a new EIS must be constructed that brings-in all stakeholders who could also be part of the over-all planning process. If this cannot or will not be done then the NO ACTION ALTERNATIVE is the only option.

To further illustrate the intentions of the NMSA by completely and totally disregarding mining claim stakeholders the following is introduced:

NMSA Minutes 1-31-08
Steve Landeene shared a draft of the Spaceport America Vision, which emphasizes dedication to enhancing customer/partner experience. Mr. Landeene also reviewed Spaceport America's objectives which included:
Foster economic and community development through spaceport related activities Develop a World Class Enterprise
Instill organizational flexibility to accommodate customer needs safely
Symbiotic relationship with the El Camino Real Trail
Environmental leadership

Clearly, the new officer of NMSA is promoting a *Symbiotic relationship with the El Camino Real Trail*, **while purposely eliminating mining claim stakeholder's interests. This blatant arrogance suggests not only elitism, but a callous disregard to the mining of metals that this country desperately depends upon. I emphatically say again that this EIS requires a complete re-construction and/or utilizing the NO ACTION ALTERNATIVE.**

Page – ES-20
Issuing a Launch Site Operator License to NMSA for Spaceport America would not result in substantial induced impacts. Although the Proposed Action would result in beneficial economic impacts to the region by supporting and facilitating limited growth, it would not induce growth.
There are no known specific future development activities that would be dependent on the Proposed Action. Spaceport America would be constructed in a rural area with very sparse population, and would co-exist with the local ranching economy. Economic activity and regional land use in the region would not change due to the implementation of the Proposed Action

My Comment:

The 1st paragraph clearly states that growth is not to be a part of the socioeconomic climate that would make everyone's lives enriched.

The 2nd paragraph indicates that the NMSA is unaware of any *known specific future development activities*, **which clearly indicates the complete lack of reaching-out to the mining claim stakeholders who might know something that the NMSA obviously did not want to become aware of. Therefore, this type of behavior by the NMSA demonstrates not only a bias against mining activity but an unspoken, but not so quite agenda that only benefits what the long-term objectives of the NMSA may be. Therefore, the NO ACTION ALTERNATIVE can be the only suitable action.**

With my previous statement(s) in mind I am now declaring that the entire area of the spaceport and most the lands as far as the eye can see in all directions from proposed spaceport hosts an

L9-024

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amazing mineral deposition that will rival Russia and S. African PGM mining and thus this is destined to become a world class act.

L9-024

E.1.4 Metallic Ore Deposits – Page E-4
The known ore deposits of Sierra County are confined entirely to the mountainous areas (Harley, 1934). Gold, silver, copper, molybdenum, lead, zinc, manganese, tungsten, iron, vanadium, fluorite, and barite are present in the Caballo Mountains west of the proposed site. Of these, fluorite, barite, manganese, gold, molybdenum, copper, and vanadium have been produced in economic quantities (Seager and Mack, 2003).
Between 1910 and 1911, the Vanadium Mines Company operated a vanadium leaching plant at Cutter (located approximately 4.5 miles northwest of the proposed Spaceport America) to process vanadium mined from the Caballo Mountains (Palomas Gap) area. The plant was equipped with 10 acid-leach tanks, two evaporating furnaces, and one calcining furnace. However, the plant failed after one year due to an inefficient leaching process (Eveleth, 1986).
Gold placer deposits are present in arroyos, fans, and alluvium shed from the Caballo Mountains (Seager and Mack, 2003), and several claims existed for areas near the western margin of the proposed Spaceport America. None of these claims are active or valid (Merrill, 2007).
Metallic ore deposits have not been documented to occur within the boundary of the proposed Spaceport America.
My Comment:
It is correct that no present mining exists in the Jornada and Caballo Mts, nor has there been any likely ore deposits documented, but this sad fact is due to the not so subtle hostility towards mineral exploration/mining displayed by the State and environmental NGO's. In fact, this whole EIS also quietly shouts its contempt for mineral extraction as if mining is some-kind of evil, when, in fact mining the metals is what has and continues to benefit humanity and build civilizations. Having said this, for the NMSA to presume that valuable metal deposits are not present near the actual spaceport and adjacent lands in the Jornada is at best either wishful thinking or blatant disregard for the overall welfare of the residents of New Mexico and specifically those of Sierra County. As I have previously mentioned – there is no public record I am aware of that the NMSA conducted a thorough examination of the rock formations anywhere within visible view of the proposed spaceport. Thus, it is at a minimum poor and unscientific performance by the NMSA to suggest or declare that valuable metal deposition(s) are not present. I can say this because I have found considerable evidence that the precious metals Os, Ru, Rh, Tl & Re are present in various formations appear to exist within the visible limits of the proposed spaceport. The question that anyone should be asking is why is the NMSA so dead set against mining? Could it be that these and other valuable metals are known to exist and want to drive all the people including mining claim stakeholders out of the Caballo Mts and the Jornada with a variety of suppositions and green biased regulations? The only reasonable action would be to completely overhaul this EIS with mining claim owners participation or the NO ACTION ALTERNATIVE be implemented.

L9-025

E.2 Environmental Consequences – Page E-4
The area has been explored for geothermal resources, oil and gas, coal, metallic minerals, and construction minerals. There currently are no commercial prospects or production of mineral resources within the proposed Spaceport America boundaries (Merrill, 2007). The Proposed Action, Alternative 1, and Alternative 2 would not result in significant impacts to mineral resources because the proposed Spaceport America site either has very limited mineral resources, or, in the case of construction materials, there are large alternate sources off-site. The No Action Alternative also would not impact mineral resources or the development thereof. However, because the proposed Project site would not be developed as a commercial spaceport, development of construction material resources could occur under

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this alternative.
My comment:
No doubt that the "area" was explored for metallic minerals, but did the NMSA hire "experts" to explore and conduct an analysis of the rocks from the exploration of the proposed spaceport and/or Jornada surrounding the proposed spaceport. However, based upon my discoveries this was not done and certainly not made public prior to this EIS.
Recently (7-7-08), rock samples were collected from in-situ formations in the Jornada del Muerto notvery far from the proposed spaceport. The rock samples were analyzed (7-16-08) with the Vreeland (Spectrex) Spectroscope showing evidence that the PGMs were present. The Vreeland spectroscope (see attached images) is not the fanciest or most expensive scientific instrument, but, I used 99+% metal standards to prove its accuracy to provide verifiable evidence that valuable ore deposition has occurred and is in need of serious professional geological exploration as soon as possible. Consequently, I can only conclude that the NMSA has not adequately prepared this EIS and thus should be required to re-examine all their mineralogical statements/claims in another EIS, of course with local mining claim stakeholder participating. Until a new EIS is prepared and submitted for public review/comments the only logical course of action is the NO ACTION ALTERNATIVE. L9-026

1.3.2 Role of the Cooperating Agencies – page 1-3
The FAA entered into Memoranda of Agreement (MOA) with each of these cooperating agencies.
My Comment:
I have asked to see such documentation, but have always received the run-around. I have always felt and believed that the people, particularly the mining claim stakeholders, were never asked to participate in such MOA's or MOU's. Therefore, this whole process has been initiated without public involvement and should be postponed till the public and current stakeholders can be a part of the proceeding that are not made easily available.
So, with this said, where can these MOA's be accessed by me and/or the public? L9-027

1.4 Purpose and Need – page 1-3
The need for the Project proposed by NMSA is to establish a long-term source of economic development in southern New Mexico that is based on high technology and can be used to develop educational opportunities.
My Comment:
This need for the project being based upon a long-term source of economic development can also be achieved either separately or simultaneously regarding valuable and strategic metals/mineral resources that only modern day technology will allow exploitation of. Therefore, the area where the spaceport is proposed to be located is not necessarily a sole means of providing a brighter economic and educational future for New Mexico and particularly southern NM. L9-028

These activities are consistent with the objectives of the FAA's mission to encourage, facilitate, and promote commercial launch and reentry activities by the private sector.
My Comment:
Although the FAA may find these activities consistent with objectives, the BLM has objectives to protect this Nation's vital strategic metals needs and in my opinion granting a license would be premature because all the facts that technology has brought into view has not been examined. Therefore, to grant a license or approve the EIS could be robbing not only the present generation of Americans, but future generations of a better and safer life. L9-029

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1.6 Other Permits and Approvals – page 1-5
The U.S. Fish and Wildlife Service, through consultation under Section 7 of the Endangered Species Act, has concurred with the FAA's determination that the proposed Project "is not likely to jeopardize" any listed species.

My Comment:

Based upon the above words, desert big-horn sheep are not sensitive to noise made by the blasting of rocket engines, and therefore would not be bothered by any exploration and subsequent mining activity. L9-030

2.1.3.1 Transport of Launch Vehicles to the Assembly or Staging Areas – page 2-25
2.1.3.2 Transport and Storage of Rocket Propellants and Other Fuels – page 2-25
LVs and LV components and payloads would arrive at Spaceport America by heavy truck (tractor-trailers) or airplane.

My Comment:

Based upon the project number of launches the roads would be used constantly to transport supplies and launch vehicles. Therefore, with this amount of projected commercial traffic disturbance in the area of the BLM managed lands to and from the proposed spaceport any other commercial activity, particularly mining related trucks and equipment would also be acceptable to the local environment relating to wildlife, air quality, etc.. Consequently, if the BLM and the state have determined that this amount of human activity and presence is not disruptive then an equal amount of mining activity would not be an adverse co-commercial endeavor. If any additional traffic disturbance was not acceptable then why does the NMSA state such or create mitigating allowances for such additional traffic? Hopefully, their plans are not to exclude traffic on these current county roads into the Jornada from state Hwy 51? L9-031

2.1.3.3 Launch, Landing, and Recovery of Vehicles – page 2-26
In the event that a LV lands, or has the potential to land, on BLM land, a set of appropriate procedures would be developed and implemented, which meet applicable requirements or restrictions of:
- *NMSA operational policies and procedures; and*
- *BLM regulations or policies, and regulations or policies of other affected Federal or state agencies.*

My Comment:

This event is not an IF but a when, so as thorough as the state is, particularly when demanding that anyone else, especially miners must comply to the states preconceived EIS standards – why is it ok to develop and implement procedures and regulations after the fact? NMSA should not be allowed to utilize this rampant form of ambiguity. Thus, this EIS should be re-examined, redone or the NO ACTION ALTERNATIVE utilized. L9-032

Solid propellant (e.g., polybutadiene matrix with acrylonitrile oxidizer and powdered aluminum) – Page 2-27

My Comment:

Health effects of acrylonitrile oxidizer according to the CDC.
www.atsdr.cdc.gov/MHMI/mmg125.html#bookmark02

Exhibit 2-22. Estimated Number of Horizontal Launches from Spaceport America Per Year – page 2-29

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Estimated Number of Licensed Vertical Launches – page 2-33
My Comment:
Based upon this chart's projected launches of concept vehicle H1 & H2 building and operating this site is not a justified expense. Whereas concept 3 vehicle indicates that on average that after 2010 there will be a flight each day. Thus, using more acrylonitrile oxidizer would raise the level of danger for area residents and farm produce.
My main concern is that when these expected flights begin the spaceport authority along with the federal, state, wilderness, trail and corridor agencies/organizations will find numerous ways to justify closing the surrounding BLM lands to mineral/metal prospectors and miners. For the moment there is no direct statement that this is the plan, but sufficient circumstantial data exists that this is the long-term plan and therefore this EIS does not justify a license from the FAA unless appropriate safeguards are put in place to ensure that the mining community have unrestricted access to the BLM land(s) North, South and West of the proposed spaceport facility. L9-033

2.2 Alternatives to the Proposed Action – page 2-36
In deciding which alternatives to consider, the FAA must look carefully at the factors relevant to the definition of purpose for the action, taking into account the needs and goals of the applicant. The FAA's consideration of alternatives may give substantial weight to the preferences of the applicant in the siting and design of the Project. The FAA always considers the views of Congress, expressed in the agency's statutory authorization to act, as well as in other pertinent congressional directives.
My Comment:
Because the FAA looks carefully at definition of purpose I want to bring to the FAA's attention that Congress created the 1872 Mining Act, mandating the seeking and harvesting of locatable minerals/metals. These minerals/metals, like oil make this nation the greatest civilization known to man. Thus, it is not in the strategic interest of the USA to be held hostage to foreign mineral holdings. Therefore, I submit that the existence of vital strategic elements be ascertained before accepting this EIS in its current unfriendly mining format.
Read what said in this 1985 report about the PGM's that I know are present in the Jornada and Caballo Mts.
http://money.cnn.com/magazines/fortune/fortune_archive/1985/09/30/66467/index.htm
Nothing has changed since the above news story, in fact America's need for strategic metals has increased while at same time America is more reliant upon politically unstable foreign natural sources (metals).
The current mindset in Congress is to become energy sef-sufficient and without an abundant inexpensive source of these metals (PGMs) the situation will only worsen. So, it would seem prudent for the FAA, NMSLO and NMSA to scrap this EIS and start over crafting a EIS reflecting all of America's urgent needs. L9-034

2.1.3.3 Launch, Landing, and Recovery of Vehicles – page 2-26
In the event that a LV lands, or has the potential to land, on BLM land, a set of appropriate procedures would be developed and implemented, which meet applicable requirements or restrictions of:
My Comment:
To the above vague open ended statement I say – As long as there are no restrictions placed upon mineral exploration and mining activities. L9-035

2.4.3 Alternative Site Layouts – page 2-40
In addition, NMSA addressed concerns with administrative actions, including:

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• Negotiated an agreement with New Mexico State Land Office (NMSLO) to waive NMSLO's rights to develop mineral rights and to grant easements on the approximately 26 square miles that Spaceport America is leasing;

My Comment:

To the best of my knowledge the American people were never permitted to view this waiver of mineral rights, and the whole spaceport issue has been an exercise of intentional secrecy. If the State Land Office and the NMSA had done proper due diligence regarding the potential of valuable metals being present I wonder how legitimate waiving NMSLO's right to develop in-situ metals? In addition, the NMSA partially sold the people on taxing themselves for needed jobs and more high-tek schooling. If the NMSLO & the NMSA had done their mandated jobs to begin with instead of after the fact the people would have a lot more to gain without troubling themselves with more taxes and debt burdens. As far as I am concerned the NMSA acted irresponsibly by not communicating with and allowing the local mining claim owners a voice into the EIS planning. If the NMSA would have tried to talk with me, even after I alluded to the fact that discoveries were forth-coming the NMSA could have resolved some dilemmas I believe they now face. It is my hope that the FAA will recognize how deficient this EIS is in representing the best interests of the people and national security by not licensing the proposed spaceport in its current EIS format.

Out of curiosity I sent (3-10-07) an email to the NMSLO about using a rocket engine exhaust to dry surface dirt for capturing placer metals (Au) that may reside on NMSLO controlled land. Eventually (3-17-07) I was told that I'd have to contact EMNRD, which I did, but have never received a reply. Personally, I have little doubt that if I made a formal application using rocket engine exhaust to dry dirt I would be rejected quicker than a normal mining applicant.

L9-036

2.4.3 Alternative Site Layouts – page 2-40
In addition, NMSA addressed concerns with administrative actions, including:
• Negotiated an agreement with New Mexico State Land Office (NMSLO) to waive NMSLO's rights to develop mineral rights and to grant easements on the approximately 26 square miles that Spaceport America is leasing;
• Negotiated an agreement with the private landowners

My Comment:

To my knowledge, despit that I contacted not once has the NMSA attempted to contacted mining claim owners in the general area for their stakeholder input/comments. As I have said previously – I find this type of due diligence on the part of NMSA frightening.

L9-037

3. AFFECTED ENVIRONMENT
3.1.1 Definition and Description— page 3-1
Land use is interconnected with most of the other resource areas considered in a NEPA document. The EPA defines land use as..."the way land is developed and used in terms of the kinds of anthropogenic activities that occur" (EPA, 2007). Land use refers to the use of land for economic production; for residential, recreational or other purposes; and for natural or cultural resource protection. Related to land use is the issue of property ownership and management.

My Comment:

I realize that the definition for this EIS could be considered appropriate. Nevertheless, there are other equally legal and important definitions and to utilize only the above seems inappropriately concealing an unspoken agenda.
While I do not disagree with legalistic explanations/interpretations of "land use" there is in my belief a much better description that is not often shared in the secular world, but nonetheless is

L9-038

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more valid than any terminology man can devise, to be found in the Bible.
I believe that YHVH (God of the Torah and Christian Bible) placed man on the land to have dominion over the environment and therefore man is part of, with, in and IS the environment, which is none other than the Mineral Kingdom. This mineral Kingdom is the land and from the land comes all things, including water and air. So, if the FAA grants (based upon this EIS format) a license to the NMSA, I fear the NMSA will in-turn create its own set of rules to govern the land with, and it is likely that the NMSA will disregard Biblical scripture, where is says— Genesis 1: let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, And in Gen 1-28 subdue it. L9-038

3.1.2 Regulatory Setting
3.1.2.1 Local – page 3-1
My Comment:
I hope, despite the behind the scenes political pressure that Sierra County has the common sense to not adopt a more regulatory land use plan than the one which is currently in force, because to plan more only means more lost freedoms, as well as higher tax rates to support the enforcement of new regulations that inevitably follow regulatory planning. L9-039

Bureau of Land Management Planning Page 3-3
Recognizes the need for domestic sources of minerals, food, timber, and fiber from the public lands.
My Comment:
This was the last item mentioned and does a poor job at that, as if intentional. L9-040

Page 4-4
The management of lands and resources administered by the BLM in the areas surrounding the proposed Spaceport America are guided by two resource management plans (RMPs) and a variety of plan amendments addressing specific resources or issues such as fluid mineral leasing, National Trail protection, or military use. The White Sands Resource Area RMP (BLM, 1985) includes the public lands in Sierra and Otero Counties, NM. The proposed Spaceport America would be located entirely on State Trust Land in Sierra County, adjacent to BLM-administered lands that are within the White Sands Resource Area. The Mimbres Resource Area RMP (BLM, 1993) includes the public lands in Doña Ana, Grant, Luna, and Hidalgo Counties, NM. The El Camino Real de Tierra Adentro National Historic Trail Comprehensive Management Plan (CMP) (NPS and BLM, 2004b) amends these two RMPs and is very relevant to the proposed Spaceport America site. Other important BLM land management issues include grazing, grassland habitat restoration, and wildlife conservation. Sections of these BLM planning documents are referenced elsewhere in this EIS as appropriate.
The BLM is currently preparing a combined RMP revision for Sierra and Otero Counties and a plan amendment for Doña Ana County to update these plans and policies and to address new issues and resource conditions affected by increased population growth and use of public land and the urban-rural interface. The record of decision for the Tri-Counties RMPs/EIS is not expected before 2009.
My Comment:
This whole section I find to be a callous disregard to the minerals, as if the minerals or especially the mining claim owners have some kind of disease. Of course the rights of prospectors and mining claimants are nasty to those who want to destroy this time honored endeavor of enriching the lives of the common man/woman. Furthermore, mining claimants still have some rights protected by the 1872 Mining Act, but there are political forces hell-bent on destroying this last vestige of L9-041

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experiencing the American dream that American people have long held sacrosanct.
I think it is appalling that the crafters of this EIS give more credence to a so-called historic trail than to the needs of the American people and Mining Claim owners.

L9-041

National Trails System Act – Page 3-6
In anticipation that grazing at some locations would be impractical once construction and flights begin, NMSA, the ranchers, NMSLO, and BLM are developing the ranch/allotment management plan to allow for the co-existence of spaceport and ranching operations. Continuation of grazing on Federal grazing allotments, or some other economic use consistent with the proposed Spaceport America use and the multiple use policies of BLM, would be determined.
My Comment:
Another example of how the NMSA is working with other, while leaving the mining claim owner out of the information loop.

L9-042

3.1.4.4 Economic Land Use – page 3-7
Although numerous leasable, locatable, and salable minerals claims have been explored in the past, there are no patented mineral lands or active mining claims within the proposed boundary of Spaceport America or the immediately adjacent lands. Some minerals claims on BLM administered land several miles to the south have been active as recently as 1992. Much of the area has been leased for drilling and seismic exploration, but all oil and gas leases had expired by 1991. The last active geothermal lease expired in 1975. The agreements between NMSA and the NMSLO include payments to the NMSLO in lieu of rights to develop mineral rights on NMSLO lands. A more comprehensive look at mineral resources is presented in Appendix E.
My. Comment:
This EIS fails to specifically define what is meant by the words "immediately adjacent lands"? Does immediate mean 1, 10 or the visual view miles west of the proposed spaceport area? Seems to me that the words "immediately adjacent lands" have been purposely dipped into the ambiguity soup to stop the average reader from comprehending the contents.

L9-043

National Trails System Act – page 3-4
The National Trails System Act of 1968 (16 U.S.C. 241-1251) created a national system of trails for recreation and preservation of linear resources. Public Law 106-307 amended the National Trails System Act to designate El Camino Real de Tierra Adentro (Royal Road of the Interior) as a NHT. The Trail passes through portions of the proposed Spaceport America location. The NHT may also be a Section 4(f) property and is discussed in Section 3.2.
My Comment:
Why does this EIS use the word "may" for 4(f) designation? Do they not know? In my opinion this "Royal Road of the Interior" is oxymoronic designed to remove public land from public use. And, it's ironic that this same NHT that introduced commerce is now becoming a trail removing commercial opportunity.

L9-044

3.1.4.2 Land Ownership – page 3-5
The NMSA has secured long term access for Spaceport America through agreements with the NMSLO, Sierra County, and two private ranch operations.
My Comment:

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Although it is probable that the NMSA contacted the Sierra County Commissioners with this news, to my knowledge the general public in Sierra County was not told. Why didn't the Sierra County Commissioners who are charged with the responsibility of knowing and looking after the people's business issues or the NMSA not make it a point to explain to the local residents the possible consequences of what was being given away? L9-045

Page 3-5 and con't on page 3-6
In addition to the base rent, which will be adjusted in time, the NMSLO will also receive payments in lieu of rights to develop mineral rights or to construct roads or grant other easements that might impair the operation of the spaceport.
My Comment:
The question I never saw answered nor allowed to be considered by the people (voters), but apparently agreed upon between county commissioners and NMSA is – will these in lieu payments reflect a reasonable compensation to the state/county/schools for the valuable minerals that should have been known to exist? Maybe the NMSA and other state agencies along with a few major mining companies have known for years that this area of Sierra County has a potential world class mining act at their door steps, which has been taken away from the people? Were the apparent negotiations between NMSLO & NMSA representative of realistic value of the minerals now and in the future, or was no consideration given for the potential? If not, then why didn't the state that supposedly has the best interests of the people at heart and/or mind do any exploration drilling to confirm or deny that valuable minerals were not contained beneath the proposed spaceport area that could or would not equal in lieu payments? L9-046

Page 3-6
A ranch/allotment management plan is in development by NMSA, the ranchers, NMSLO, and BLM in order to allow the ranchers to continue to graze State Trust lands and adjacent BLM lands under the terms of their existing grazing permits.
My Comment:
Why weren't the same rights extended to local mining claim owners of protecting their monetary interests in their past and future efforts and potential exploitable value of the minerals on/in their mining claims, because it appears that the over-all intention of the NMSA and the El Camino Real Trail organization objective is to eliminate any/all (including mining) in the Jornada and within a so-called multiple mile viewable buffer zone? L9-047

Page 3-6
The goal of these agreements and the plan is to identify specific range management practices necessary and appropriate for co-existence of spaceport and ranching operations and to mitigate potential impacts to wildlife and wildlife habitat. These practices may include such things as: range improvement projects; range fire prevention and management; location of fencing, cattle guards, or other security and control features; and identification of ground hazard areas within existing allotments. The process would be dynamic and ongoing, with modifications as necessary to adapt to changes either in spaceport operations or ranching practices.
My Comment:
What a wonderful goal that just happened to exclude ming claim stakeholders. Mining Claim owners should have been granted similar compensation, but it appears that the NMSA felt that mining claim stakeholders were expendable? L9-048

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3.1.4.4 Economic Land Use – page 3-6
Continuation of grazing on Federal grazing allotments, or some other economic use consistent with the proposed Spaceport America use and the multiple use policies of BLM, would be determined.
My Comment
Obviously, this whole sentence and specifically the words "*consistent & be determined*" indicates there are unmentioned plans that will become realities at a later date. This type of planning is an apparent direct threat against any activity that the NMSA deems unfit (commercial mining activity) to coexist within the multiple use policy of BLM land(s). This bold statement needs bold clarification instead of the implied threat before any acceptance of this EIS and a FAA license. Hopefully, this EIS will be found unacceptable by the FAA. Therefore, I suggest that the NO ACTION ALTERNATIVE be implemented till a new EIS is constructed that reflects specifics and the interests of mining claim stakeholders.

L9-049

Page 3-7
Although numerous leasable, locatable, and salable minerals claims have been explored in the past, there are no patented mineral lands or active mining claims within the proposed boundary of Spaceport America or the immediately adjacent lands. Some minerals claims on BLM administered land several miles to the south have been active as recently as 1992. Much of the area has been leased for drilling and seismic exploration, but all oil and gas leases had expired by 1991. The last active geothermal lease expired in 1975. The agreements between NMSA and the NMSLO include payments to the NMSLO in lieu of rights to develop mineral rights on NMSLO lands. A more comprehensive look at mineral resources is presented in Appendix E.
My Comment:
Because this is the only time that the terminology "*proposed boundary*" and "*immediately adjacent lands*" is used only once in the entire EIS I am forced to ask –
what exactly is meant by "*proposed boundary*" and "*immediately adjacent lands*" ? Are these peculiar, unspecified terms going to be expanded upon sometime in the future? It seems rather clear that the NMSA has an agenda not being adequately defined in this EIS that causes me considerable mental anguish, because all the circumstantial evidence points to the elimination of the mining claim owner who has not been given a voice in the over-all process of this proposed spaceport and this EIS.

L9-050

El Camino Real de Tierra Adentro National Historic Trail – page 3-8
Specific policies and actions that are relevant to the proposed Spaceport America include a 5-mile visual impact zone around the Trail and proposed interpretive sites.
My Comment:
Assuming that the proposed spaceport becomes licensed and based upon the this page 3-8 nomenclature – any other potential commercial enterprise that may be located within visual range would also be afforded the same exemptions to operate independent of what may occur regarding this trail's sphere of political influence. If this is not the case the spaceport licensing would represent a distortion of what a commercial enterprise is, whether operated by the state, individual or large corporation. Of course, I am specifically stating such in regards to the time honored, historic use of the land—mining—that various agencies and NGO's would like to see abolished in a free America.

L9-051

3.2.2.2 National Trails System Act, Section 7(g) – page 3-10
Section 7(g), 16 U.S.C. 1242(g), of the National Trails System Act (as amended through P.L. 95-625)
My Comment:

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After reading this whole section I remain confused as to the purpose of this 3.2.2.2 being a part of this EIS. However, recognizing that there is or must be a specific reason for stating what is contained in this section of the EIS I am suspicious as to the potential intent of those who placed this section at this EIS juncture. For instance – I suspect that the NMSA is going to use this particular section (Department of Transportation Act (49 U.S.C. 303[f])) to curtail, limit or eliminate any/all vehicular traffic on any of the gravel roads in the Jornada del Muerto that may be within visual range of the spaceport under the pretense of some obscure or ambiguous The National Trails System Act, at 16 U.S.C. § 1242(a)(3) 1(The El Camino Real de Tierra Adentro National Historic Trail CMP/EIS) interpretation within the 4(f). If the spaceport is granted a license from the FAA, then the spaceport ought to also specifically state/define their intentions of future actions, as well as make specific determinations that all commercial enterprises, particularly mining activity are just as valid in this general area as the spaceport is. If the NMSA is unwilling to so define their intentions before obtaining a FAA license then the FAA should not issue a license on the grounds of preferential treatment at the exclusion of just as important if not more important mining related activities. The NO ACTION ALTERNATIVE is the only reasonable option. L9-052

3.2.3 Region of Influence – page 3-11
The ROI for prime and unique farmland would include the direct disturbance area of any designated farmland or indirect or secondary effects on other off-site farmland that would result from the Federal action.
My Comment:
I find this section confusing and ambiguous, which makes me suspicious as to whether or not this section is incorporated to get around the probability the Rocket gasses would settle upon the food crops, which would be eaten by the general population and based upon the CDC's www site could, over time cause people and animals to become ill. L9-053

3.3 Noise – pages 3-13 through 3-16
My Comment:
Perhaps I overlooked or could not comprehend this section, because I could not find what the noise level was anticipated to be once rockets began launching every day. L9-054

3.4 Visual Resources and Light Emissions
3.4.4.1 VRM Classifications – page 3-21
Spaceport America would be developed on State-owned land and would not be governed by BLM VRM objectives on acceptable visual change. However, by agreement among the FAA, BLM, and NPS, the VRM classes and objectives are used here in describing the resource and are treated as a reference point for assessing impacts.
My Comment:
As far as I am aware these agreements were not made public to mining claim stakeholders. Because the NMSA and the BLM saw fit to bypass mining claim stakeholders by granting what appears to be special treatment, then mining claim owners should have the same rights and if not this EIS should not be found acceptable. L9-055

3.4.4.2 Existing and Updated Inventory Description – page 3-21
Foothills of the Caballo Mtns Moderately distinctive
My comment:
Not only do I find this designation offensive, but is probably purposely planned so that future L9-056

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mining in the general area would have considerable difficulty in developing. If this designation was done during the same time frame that the spaceport was officially announced with I-25 road signs then this designation becomes all the more suspicious as to why this was done. This EIS ought to have designated when and why the foothills of the Caballo Mts was designated "*moderately distinctive*".

L9-056

3.5.4.6 El Camino Real de Tierra Adentro National Historic Trail – page 3-39
Trail Management: Historic Corridor Management Plan page 3-42
My Comment:
In my opinion this NHT and Corridor Management Plan are ultimately designed to eliminate the public, including politically non-connected small mining claim stakeholders from ever developing their mining claims. The NMSA should have been completely transparent as to the long-term objectives. Therefore this EIS does not deserve the reward of a FAA license.

L9-057

3.6 Air Quality – page 3-46
3.6.2.5 General Conformity – page 3-50
The General Conformity Rule, promulgated by the EPA at 40 CFR Parts 51 and 93, requires that the Federal government may not engage, support, or provide financial assistance for permit or license, or approve any activity that fails to conform to the State Implementation Plan (SIP).
My Comment:
I recognize that baseline standards may have been set, but I cannot locate exactly how much of the emitted gasses from these rockets at the projected number of flights after construction of infrastructure will actually affect air quality. Obviously, it will not be the same as a so-called baseline. Plus, I see a bunch of fancy words, such as: *promulgated within attainment, nonattainment* **and maintenance areas that somehow are within state guideline maximums if I read this entire section correctly.**
The current NM governor does not want more CO2 emmitted by his own initiatives, yet he wants these rockets promulgating (dumping/spreading) a various brew to be exhausted by rocket engines that will be diluted in the atmosphere and settle upon plants and soil over a wide area. If a mining company tried to do this same thing as exhibited herein I'd bet that an EIS would fail. Although there may not be 2 sets of standards publically, there ought to be in this clean air section a specific amount of each gas each projected rocker engine will emit and then added up to reflect a daily or yearly total so that the people can intelligently make an informed comment instead of having to bob and weave through this tangled web of words that only a lawyer could have put together to fight over the meaning a year or 2 from now. This EIS should be trashed and a new one constructed that allows the people to understand what will eventually occur. Therefore the NO ACTION ALTERNATIVE should be the choice.

L9-058

In addition to the preceding according to FAA Order 1050.1E found at:
www.faa.gov/regulations_policies/orders_notices/media/ALL1050-1E.pdf
are: **13.1 REQUIREMENTS - 13.1a**. and **13.1b**., which ought to be read to understand why it's important that I have included the *www* site.

3.6.4.3 Site Air Quality – Page 3-53
It is highly unlikely that any of the above sources would result in nonattainment of criteria pollutant standards at the proposed Spaceport America. In the proposed Spaceport America area, current

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vehicular traffic on unpaved roads is as low as 20 vehicles per day.

My Comment:

I am unsure what the purpose of trying to establish nonattainment standards by stressing current vehicular traffic to base the future upon? If the thousands of tourists arrive at or around the spaceport was sold by NMSA to the voters for economic reasons then it is obvious that nonattainment will be an issue. Therefore, because of my suspicious nature and the hints flying around this last year I presume that the state will somehow manage to curtail or eliminate all vehicular traffic in the Jornada del Muerto.

The NMSA has not publically stated this likely a reality, but there is sufficient evidence that both the NMSA in combination with El Camino Real (NHT) will demand curtailment of tourism under the premise that tourists will damage the pristine qualities of the area, which in my opinion is a bunch of hog-wash. Furthermore, I strongly suspect that the NMSA and the NGO for the El Camino Real will also say that no mining activity, can go on in the general area, which would include trucks.. Consequently, this supposedly clean air section is not only resting upon unspoken assumptions and implied threats to future tourism and mining this section alone ought to be enough to disqualify a favorable decision of this EIS. Consequently, if Americans cannot come to this area of the Jornada del Muerto without being stopped by state police, BLM rangers, sheriffs, or special security agents then the agenda of the NMSA is at best questionable and needs long-term defining. Therefore, due to the constant unspecified cryptic terminologies used this EIS should not be found acceptable and the NO ACTION ALTERNATICE implemented.

L9-059

3.7 Water Quality, Wetlands, Wild and Scenic Rivers, Coastal Resources, and Floodplains

3.7.1 Definition and Description – 3-53

The water resources to be considered in this EIS are those related to ephemeral surface water (such as arroyos, draws, and other drainages that contain water only during and after precipitation events), floodplains, and ground water.

My Comment:

I have witnessed on several occasions flash floods in the Joranda del Muerto, some of which were fascinating to behold or just plain scary. Tremendous quantities of water can and does gather quickly, which can wash away and destroy a car in a few minutes. A lot of this water that begins near the south end of the Caballo mountains washes south, east and north, and a lot of this water empties west through Apache canyon/gap and Polomas gap, ultimately emptying in the Rio Grande River. Therefore, the monsoons in the Jornada will carry whatever contaminates that are generated by rocket exhaust that settles upon the land into the Rio Grande River. Consequently these rocket exhaust contaminates will not only affect fish but the wildlife, livestock and the farms from Arrey, NM to Las Cruces, El Paso all the way down to Bownsville, TX. Therefore, because this Rio Grande water that is used by both the USA and Mexican farmers the food crops will disseminate these contaminates world wide. Therefore, this whole section on water quality requires considerable specific SIP explanation before this EIS is approved. The NO ACTION ALTERNATIVE is the only logical choice till Congress and/or EPA rules on the toxicity of the Rocket Exhaust contaminates.

L9-060

3.7.2.1 Surface Water and Floodplains – Page 3-54

3.7.2.2 Ground Water – Page 3-54

The National Pollutant Discharge Elimination System storm water program, as authorized in Section 402 of the Clean Water Act,

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My Comment:
The question becomes—How long will it take for the rocket engine exhaust chemicals to infiltrate the ground water (Aquifers & Rio Grande River)? The NM Governor has requested that no oil/gas drilling be permitted in Otero and Sierra Counties due to the possibility that these activities MIGHT contaminate ground water. Therefore, how can this EIS be justified to be found acceptable and a license issued to possibly pollute the area ground water and River? Clearly, this EIS is not specific enough and needs clarification based upon how the state treats mineral exploration (oil/gas & metal mining). Consequently the NO ACTION ALTERNATIVE should be invoked till these questions are adequately dealt with.

L9-061

Below is an interesting news article that coincides amazingly well with the biased point of view against the fundamental American ideal that freedom and liberty is paramount. The American people want commodities, food, metals and gas/oil at considerably lower prices, yet political forces seem to want American's to be poor by being forced to pay more and at same enrich foreigners. By reading this recent news article it ought to be clear that bureaucracies' could care less what the American people want or need. In addition this article describes how the NM Dept of Game and Fish still believes that human activity is bad and must be eliminated, which means no natural resource production. Also apply this news article at *Sonic Boom Impacts at the Spaceport – page 4-17*

http://www.lcsun-news.com/ci_8780976
NM officials protest upcoming BLM oil and gas lease sale By SUSAN MONTOYA BRYAN Associated Press Writer, Article Launched: 04/02/2008 05:28:19 AM MDT
ALBUQUERQUE, N.M.—The New Mexico Department of Game and Fish and conservationists are protesting the Bureau of Land Management's upcoming oil and gas lease sale, saying the federal agency should reconsider nearly half of the parcels up for bid because of potential impacts on wildlife and their habitats.
The BLM is offering dozens of parcels covering thousands of acres in New Mexico, Texas and Oklahoma as part of the agency's quarterly sale on April 16. Protests over the planned sale were due Tuesday afternoon.
The Department of Game and Fish is particularly concerned about 49 parcels in southeastern New Mexico, the **Caballo Mountains** of Sierra County and an area along the New Mexico-Arizona border.
Game and Fish director Bruce Thompson said Tuesday the protest is aimed at getting the BLM to take into account the state's comprehensive wildlife conservation strategy, which identifies key habitats and species of concern, when approving parcels for lease.
"There is no apparent urgency associated with any of the proposed leases," Thompson said in a letter to the BLM. "There is adequate time to engage in more productive review and collaboration between BLM and (Game and Fish) to assess parcels like these with respect to more recent information available."
It was only recently that a survey by state biologists turned up two dozen endangered desert bighorn sheep living in the Caballo Mountains. More than 30 of the protested parcels are adjacent to the mountain range.
However, concern over the Sierra County parcels became moot late Tuesday when BLM state director Linda Rundell decided that no parcels in Sierra or Otero counties would be offered during the sale because the agency's environmental impact statement for the two counties is involved in litigation.
"We can now say without question that these are withdrawn until such a time that the EIS appeal is resolved," said Donna Hummel, a BLM spokeswoman.
The planned lease sale also has drawn criticism from the national nonprofit Theodore Roosevelt Conservation Partnership. The group filed its protest Tuesday, citing concerns over the bighorn sheep.
Oscar Simpson, conservation chair of the New Mexico Wildlife Federation, said his group and other sportsmen would sign on to the protest.
Simpson, who also is a member of the state Game Commission, said the bighorn herd in the Caballos is a sign that the species is recovering. Allowing oil and gas development in the area would be "bad advice,"

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he said.
"We think we need to do everything we can to make sure that we understand the area good enough to make sure that if there is oil and gas development in the area, it's got a big enough buffer zone and it won't impact this herd or its migratory paths," Simpson said.
Elise Goldstein, a bighorn sheep biologist with Game and Fish, said the parcels initially proposed for lease were close to sheep habitat and could have interrupted potential migration paths that ensure the species' genetic diversity.
"To me that's the biggest concern, if you start building all kinds of stuff out there you're just basically putting up a lot of obstacles to that migration route," Goldstein said.
In addition to the sheep, the Game and Fish protest cites concerns over key habitats and species of concern in southeastern New Mexico and Catron County. The protest also argues that oil and gas drilling near the Bottomless Lakes State Park could impact the aquifer as well as contaminate groundwater wells at the park.

3.8 Fish, Wildlife, and Plants – page 3-66
The Bald and Golden Eagle Protection Act specifically protects the two species from unauthorized capture, purchase, transportation, etc. of the birds, their nests, or their eggs. If any action that might disturb the eagles is foreseeable, the USFWS would be notified for appropriate mitigation measures.
My Comment:
The ending of the sentence with "etc." fails to include that any disturbance of eagles can be considered harassment and has been used to stop mining activities. Therefore, this EIS needs clarification as to what the "etc" means/contains. Furthermore, why should the spaceport be afforded special privilege that the USFWS seldom or never allows the mining community by mitigating disturbance? Over the last several years I and many others have seen, multiple times the big eagles resting on the power transmission lines in the Jornada. And, recently (May & June 08), these eagles have been seen on these power transmission lines. L9-062

3.9 Hazardous Materials, Pollution Prevention, and Solid Waste – page 3-78
My Comment:
I see no provision of possible reclamation of accumulated rocket exhaust contamination that may build-up in the soil. Is it possible that this whole area become a costly super-fund clean-up site? Clearly, this EIS has not adequately addressed this possibility and needs clarification. L9-063

3.10 Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks – page 3-80
This section describes the existing socioeconomic environment, environmental justice environment, and environment to evaluate children's health and safety risks of the areas in the vicinity of the proposed Spaceport America site.
My Comment:
The cancer causing rocket exhaust (perchlorates) that will float to near-by low income farming communities will likely contaminate crops thereby maybe creating long-term health problems for millions of people. It is reported at various www sites that children are more likely to be affected by perchlorates than adults because thyroid hormones are essential for normal growth and development. I found it amazing that this EIS did not attempt to discuss the potential adverse health affects of perchlorate and the related chemicals of rocket engine exhaust that will become accumulative over the years that this proposed spaceport suggests it will be in operation. Therefore, more clarification should be done before a license is granted the NMSA. More on this subject in the next comment. L9-064

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3.10.3 Children's Environmental Health and Safety Risks—Page 3-91
3.10.3.1 Definition and Description
Agencies must ensure that their policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.
My Comment:
In addition to the previous couple related comments there are numerous www sites describing the toxic effects of perchorates, such as http://dx.doi.org/, www.ehponline.org (Perchlorate and Thyroid Function, NHANES 2001-2002, Page 5 & 6) perchlorate exposure from the diet is probable, because of the contamination of milk (Kirk et al. 2005), as well as vegetables (Sanchez et al. 2005), fruit (Sanchez et al. 2006a), grain (Sanchez et al. 2006b), and forage crops (Jackson et al. 2005).
Severe hypothyroidism due to iodine deficiency during pregnancy is a preventable cause of cretinism, a permanent cognitive impairment of the developing fetus (CDC 2005; Glinoer 2000).
And according to what I read California is adopting perchlorate drinking water standards of 6ppb, Plus, New Jersey is apparently proposing to limit perchlorates to 5ppb this month. Plus, Massachusetts has already adopted 2ppb for their drinking water.
This government (CDC) site http://www.atsdr.cdc.gov/tfacts162.html#bookmark02 explains how perchlorates affect the ability of the thyroid gland to take up iodine.

In addition to the preceding data I sure find it curious that the environmental NGO's that constantly attack any proposed mining permitting process have remained silent about this spaceport's various rocket exhaust chemicals. Is it possible that the NMSA a state taxpayer funded agency has told their progeny (environmental, wilderness and the NHT organizations) to not speak out against the spaceport? Just as amazing is how silent the BLM, New Mexico game and fish department along with the wildlife NGO's are about the possibility of rocket exhausts contaminating the public lands that wildlife depends upon for food.

L9-065

3.10.3.3 Region of Influence – Page 3-92
The ROI for children's environmental health and safety risks consists of three Census tracts surrounding the proposed Spaceport America site. These Census tracts were included because they are the areas most likely to experience any potential impacts of the Proposed Action.
My Comment:
What is presented in this specific section is accurate, however, the spaceport's affects on the environment and socioeconomic conditions of both adult and children was based the promoted thousands of tourists and workers in the over-all general area. Therefore, this portion of the EIS is incomplete and does not reflect the original stated goals of the NMSA when it was being promoted to the voting public prior to voting for the spaceport tax. Therefore, clarification is required before this EIS should be approved. Furthermore, it should be an obvious reality—with more people coming into the area—more localized and unforeseen business opportunities will emerge causing even more likelihood that this specific section is not totally accurate. Consequently, this EIS is not sufficient and requires a new study and new EIS.

L9-066

4.1 Compatible Land Use – page 4-1
- *The NMSA has issued a letter to BLM establishing a policy of not seeking to close access to the public lands surrounding the proposed location (Sumpter, 2006).*
- *The NMSA has committed to working with BLM, other government agencies, and landowners to allow current uses to coexist with Spaceport America. A ranch management plan is being developed that will outline measures to ensure that the current grazing, habitat restoration, and other*

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activities consistent with the multiple use philosophy of these land management agencies will continue to the extent that is practical.
Current local land use plans do not account for the expected changes in land use, but the affected counties and the State have been actively involved with the development and planning for Spaceport America. The environmental consequences of the Proposed Action and Alternatives on compatible land uses are not considered significant.

My Comment:

From my perspective the NMSA says it is not seeking to close access to public lands, yet says "*... extent that is practical.*", which clearly leaves open the door to road or access closure of the Joranda, including the Caballo Mts from the Jornada.
This EIS is supposed to be specific yet uses assumptions or possibilities, without specifically saying such, which is unacceptable. Of course, the NMSA won't likely be the henchman to shut down access to the Jornada, it will be the state via funding (new tax district) for roads or the El Camino Real (NHT) demanding only limited access to protect the so-called fragility of the area, despite the fact that very few people want to be in this desert area. This EIS should not be acceptable to the public nor the FAA to grant a license without specifics that at a minimum allow the public and commercial enterprises the same options the spaceport wants to enjoy.
The NMSA indicates that the current local land use plan does not account for expected changes in land use, but the state has been active behind the scenes and concludes that this spaceport and facilities land use is not "*considered significant*". Like the NMSA states – the state has been working with counties to develop land use plans, which I strongly suspect will be worded in such a way as to limit accessibility into the Jornada and have the consequence of stopping any possible mining activity. Thus, based upon my discoveries will rob the local population of meaniful jobs, a robust economy and a brighter future. Therefore this EIS should be scraped and re-constructed to reflect reality and the prospects of mining. So, the NO ACTION ALTERNATIVE should be implemented.

L9-067

This same segment goes on to state at page 4-2:
In designing and siting facilities, the NMSA has committed to minimizing the amount of change to existing land uses to the extent possible. The total land area disturbed by Spaceport America development and operations is a very small fraction of the State-owned land area available in the geographic region, and the impacts on Federal land use and lands with special designations in the surrounding areas would be reduced or eliminated by the actions described above and other measures to be developed.
The environmental consequences of the Proposed Action and Alternatives on compatible land uses are not considered significant.

My comment:

The NMSA is saying it is committed to minimizing the amount of change to existing land uses as possible, which on the surface sounds ok, except, that, here again ambiguity is rampant by not specifically stating what these commitments and changes will be. Worse yet is contained in the last sentence, which is what the blatant unspecified meaning of "*reduced or eliminated*" or "*other measure to be developed*". Clearly, this whole segment leaves a wide-open door as to what the NMSA in collaboration with State agencies, NMEMD, NMDGF, archeological, NHT organization and the BLM might do to unrelated spaceport commercial activities, such as mining on associated/adjacent BLM land. This EIS ought to be found unacceptable due to non specificity that SIP requires, as well as the implied threats to the just as important commercial enterprises of mining activity that could provide similar or better socioeconomic conditions for the state, federal govt and the American people.
That last sentence is another of the NMSA's intentional ambiguities declaring that compatible land uses are not considered significant. Who is making this determination and what proof is offered to

L9-068

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substantiate this decidedly biased conclusion? L9-068

4.1.1 Proposed Action – page 4-2
4.1.1.1 Construction – page 4-3
In some areas access would be restricted to protect facilities and for safety concerns, but recreational use would continue.
My Comment:
This section sentence fails to specify what areas – state land where spaceport is to be located or adjacent BLM land or even roads within the Jonada basin? This lack of specificity as to what lands might or will be affected or restricted access is another example of what I suspect is purposely designed ambiguity and therefore this EIS does not deserve approval by the FAA. L9-069

Page 4-4
Air emissions from the proposed launch operations at Spaceport America are discussed in Section 4.6. Consideration of deposition from a ground cloud near a launch site is found in Geology and Soils, Appendix D. These analyses indicate that normal vertical launch activities present no major air quality issues that would result in a substantial impairment of current land uses. These analyses do indicate, however, that a potential health threat from HCl (and perhaps Al_2O_3) potentially could exist around and downwind from an accident site involving an LV using solid propellants (e.g., small Concept V1 LV's).
My Comment:
This paragraph admits that aluminum powder and hydrochloric acid could be potential health risks from an accident, but, yet, somehow these same chemicals, combined with other solid rocket propellants present no major air quality issues during a launch. This is another rather significant ambiguioty that deserves clarification as to exactly why these chemicals released in the air pose no serious long-term environment (land use) threat when it is clear to any rational mind that rocket propellants can only be diluted with the mass of air in the general area, but nonetheless settle back to earth. Furthermore, I seriously doubt that a mining company would be allowed to emit similar amounts of acidic gasses or aluminum powder into the atmosphere that are known to cause thyroid problems. Consequently, this EIS should have set-out specific safeguards the NMSA will utilize to protect the people, wildlife, cattle and land like the state and BLM would require from mining operations. Therefore, till another EIS is created that details these specifics the NO ACTION ALTERNATIVE is the only current choice. L9-070

4.2 Section 4(f) Lands and Farmlands – page 4-6
The NMSA is conducting surveys, NRHP evaluations, and impact analysis and is working with consulting parties on an agreement to avoid, minimize, or mitigate impacts on cultural resources.
MyComment:
The above statement suggests that by using some-kind of non-defined "*working with*" nomenclature that agreements can be achieved. Maybe this is accurate and ok, but I honestly believe that if a mining company attempted this same procedure it would meet with an immediate no and abundant laughter from state environment agencies. Therefore, the question must be asked – why has this EIS failed to specifiy how such agreements are to be achieved and justified so that a commenter, such as myself can not only be informed but make informed comments to this EIS? Consequently, this EIS should not be approved unless the same standards are allowed to all other commercial enterprises, including mining activities. The NO ACTION ALTERNATIVE is therefore applicable in this instance. L9-071

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4.3.1.2 Operation
Vertical Launch and Recovery – page 4-15
Even if it is assumed that high sound levels would have duration of 2 minutes, this is a very small part of the 4,320 minutes in 3 days.
Also, the communities of Hatch and Truth or Consequences would be shielded from the launch and test firing sites by the Caballo Mountains and not be exposed to peak noise levels.
My Comment:
I am not critiquing noise levels, but the above sentence seems to be purposely creating a scenario that I doubt would be tolerated if a mining company wanted an approved EIS. A rocket launch that made x amount of noise for 2 minutes is one reality, but to somehow justify this noise within a period of 3 days appears to me as trying to pull the wool over people's eyes, because as I read the projected number of launches there would likely be at least one vertical or horizontal launch every day by/during year 2011..
Although this last sentence does not take into account of the possibility that mining activity will be subjected to this noise I find it curious as to why any commercial mining activity on the eastern flanks of the Caballo Mountains or adjacent BLM lands is intentionally left out?

L9-072

Estimates of Sonic Boom Impacts at the Spaceport – page 4-17
My comment:
I have been on the top of the Caballo Mts and experienced the sonic boom by a dive-bombing jet. So I know the sensation. Although I personally believe that wildlife must learn to co-exist with man or they should go the way of the dinosaur there is not a doubt in my mind that sonic booms would, at a minimum, cause wildlife to leave the area. Therefore, having said the foregoing why the NMDGF has not objected to this noise baffles me when they claimed in 1992 that any human, especially occasional dynamit booms in their desert bighorn sheep habitat would cause them severe mental anguish. Thus, if the game & fish dept was being truthful I can only wonder why these sheep and other wildlife can now tolerate such noise. Therefore, what the NMDF&G is saying with their silence is that noise does not cause problems for critters and the environmental NGO's have no standing to fight against mining activities in the areas near or within eyesight of the proposed spaceport.

L9-073

4.5.1.3 Summary of Impacts from the Proposed Action – page 4-48.
Developing a State management plan for those portions of the NHT located on State Trust Land;
My Comment:
It seems to me that a management plan would have been already completed prior to this EIS. If a mining enterprise were to use this methodology I have no doubt that such an EIS would be dismissed as laughably incomplete. There, I ask why this same standard is not applicable towards the proposed spaceport? This EIS does not deserve acceptance due to an obvious biased intent in favor of NMSA.

L9-074

Climate Change – page 4-61
CO_2 is by far the most abundant pollutant generated by combustion of these propellants (FAA, 2001). For an assumed 125 vertical launches and 797 horizontal launches in year 2013, a total of 721 tons of CO_2 would be released into the stratosphere by the launch activities. By comparison, the total annual CO_2 emissions from all U.S. sources for 2005
were nearly 6.6 billion tons (EPA, 2008). Although CO_2 emissions could affect climate change, the CO_2

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emissions from the Proposed Action would be negligible compared to the rest of the CO_2 emissions sources in the U.S

My Comment:

Personally, I place absolutely no value of the claims that Carbon Dioxide is a man made pollutant causing global warming. Nevertheless, because the state of New Mexico claim that CO2 is a pollutant I am forced to suspect that the designers of this EIS are utilizing the quoted words "*negligible compared to the rest of the CO_2 emissions sources in the U.S.*" as a justifiable comparison to circumvent the so-called harmful effects of man made CO2.that the entire environmental community has seen fit to demonize. Also, it is interesting that this proposed spaceport projected rocket launches will emit 721 tons of CO2, yet, oddly, in a March 08 news article www.gallupindependent.com/2008/March/032008desertrock.html **a proposed coal fired electrical generating plant in the northwestern NM -- according to the New Mexico Environment Department this plant will generate 12 million tons of unacceptable CO2. Furthermore, the news article indicates that this coal fired plant "…would increase New Mexico greenhouse gas emissions by about 15 percent, making Gov. Bill Richardson's aggressive greenhouse gas reduction goals difficult — if not impossible — to meet…" I agree that 721 tons is miniscule compared to 12 million tons. Nonetheless, something is out-of-whack and requires clarification because according to a news article** www.lcsun-news.com/latest/ci_7224163 **Governor Richardson said "We must start by instituting a nationwide, market-based cap and trade system that reduces carbon emissions in the U.S by 80 percent by 2040,". So the question becomes – any additional release of CO2 will cause NM CO2 reductions to become harder or maybe impossible to meet. Furthermore, according to the NM Climate Change Advisory Group final report 2006 "Governor Bill Richardson signed Executive Order 05-33 on June 5th, 2005, establishing the New Mexico Climate Change Advisory Group (CCAG).1 The Governor directed the CCAG to prepare a report that includes a projection of the State's future GHG emissions and policy recommendations for reducing New Mexico's total greenhouse gas emissions to 2000 levels by the year 2012, 10% below 2000 levels by 2020 and 75% by 2050."** L9-075

These few articles indicate that CO2 levels in the state MUST be drastically reduced, but how can that happen if this proposed spaceport is issued a license?

Another issue that seems to be totally missing from this EIS is that this proposed spaceport is not being criticized by the entire environmental community like they would to any other business activity including mining. I wonder if the NMSA will have to jump through the quagmire of regulations found at http://www.nmenv.state.nm.us/permits.html and http://www.nmenv.state.nm.us/aqb/permit/app_form.html

The obvious question that needs clarification is – Is it possible that a privileged few can do what they want while telling the rest of humanity that only the rich are allowed to do these deeds? In other words do as I say not as I do. The NO ACTION ALTERNATIVE is the only possible solution till this issue is clarified.

Summary of Impacts from the Proposed Action – Page 4-90 through
Summary of Impacts from the Proposed Action – Page 4-92
There are no anticipated significant adverse impacts arising from the proposed Project that would disproportionately impact minority or low-income populations. There are no disproportionate high and adverse impacts to minority or low-income populations expected from the construction or operation of the proposed Spaceport America. Therefore, there are no significant environmental justice impacts as defined by FAA Order 1050.1E because identified significance thresholds are not expected to be reached.

My Comment:

Because of the verifiable discovery of the Platinum Group Metals on lands & near the proposed L9-076

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spaceport it is entirely possible that a 1849 gold rush could well happen in this area. Therefore, all the suppositions made in this section are unreliable. Therefore, a new EIS must be constructed and the NO ACTION ALTERNATIVE initiated.

L9-076

4.11 Energy Supply and Natural Resources – Page 4-95
My Comment:
According to FAA Order 1050.1E found at:
www.faa.gov/regulations_policies/orders_notices/media/ALL1050-1E.pdf
304. EXTRAORDINARY CIRCUMSTANCES. Some actions that would normally be categorically excluded could require additional environmental analysis to determine the appropriate NEPA documentation.
I believe that the discovery of Platinum Group Metals there will be the distinct probability that huge numbers of prospectors and possible mining companies will come to the area, which will result in impacting the available energy and natural resources of the area. Therefore, this EIS cannot be found acceptable and must be re-constructed to demonstrate the potential impacts to demands upon housing and electricity needs in the months ahead, especially if mining activity would commence.

L9-077

4.13 Secondary (Induced) Impacts – Pages 4-103& 4-104
Economic activity and regional land use in the region would not change due to the implementation of the Proposed Action. Therefore, no secondary or substantial induced impacts are expected to result from the Proposed Action or Alternatives analyzed in this EIS.
My. Comment:
I disagree, because when the news gets out about the discovery of the PGM's in the general area life and circumstances will likely change radically. Therefore, a new EIS should be begun to reflect reality.

L9-078

5.2 – Page 5-3
The leasing and development of oil and gas resources by the BLM could change land use in the vicinity of the Project area, but there are no active applications or pending leases.
My Comment:
Even though Oil & gas drilling occurred in the past and apparently no discoveries were made to justify further exploration I seriously doubt that with today's technology that economical oil and gas discoveries cannot be found. Therefore, basing conclusions upon the historical facts does not preclude a new discovery and thus this type of logic is at best faulty.

L9-079

Page 5-8
BLM leasing and development of oil and gas resources - The potential for development of these resources in the region of influence exists. The environmental documentation for
the proposed resource development determined that impacts to cultural resources could be significant (BLM, 2008). Although develop of such resources would not be allowed
within 0.25 mile of the NHT, there would likely be impacts to the settings of the NHT and El Camino Real-related resources.
Development of NHT visitor facilities – Development of visitor facilities along El Camino Real NHT would result in increased visitor use and access. This could result in increased vandalism, inadvertent damage, or illegal artifact collecting along this historic property and to other historic properties nearby.
My Comment:

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Surprisingly, this EIS continues to fail at suggesting that mining claims, along with exploration and discoveries are not mentioned. I wonder why? Could it be that the NMSA plans to eliminate the mining claim stakeholders in the near-future?
I suspect that the El Camino Real NHT with all the theoretical vandalism, inadvertent damage will ultimately be used in some manner to help eliminate mining activity.
Because this EIS fails to mention the potential of mineral discoveries and has obviously not taken into account the possible associated impacts in the general area this EIS should not be found acceptable and the NO ACTION ALTERNATIVE be implemented till the discovery of the PGM's are part of a new EIS.

L9-080

The CONCLUSION of My Comments is meant to help the FAA understand the enormity of the PGM discovery, which is intimately associated with this EIS.
In 1983 when I began staking mining claims I heard rumors that platinum group metals (PGM's) were present in the Caballo Mountain area. Although this was interesting my mindset was to locate a silver deposit and did not begin to understand the ultimate meaning of these vital metals to the American economy and National Security Interests. In fact these metals were primarily just curiosities. Within a couple years my knowledge of the PGM's began to grow exponentially regarding the importance, value and chemical complexity. I was accumulating a lot of data via laboratory analysis, which were consistently found to be of no interest to the major mining community; even the School of Mines in Socorro head honcho's poo-poohed my PGM data. By the mid to late 80's it was common knowledge that anyone suggesting they had PGM's was considered to be crazy or some kind of con-artist. Nevertheless, I and others continued trying to crack the enormous problems of proving-up the existence of these mysterious PGM's. Needless to say, by not quitting as most prospector's & mining claim owners did and despite abundant frustration and considerable amounts of financial chaos I finally found an affordable way to prove the existence of the PGMs that the experts at the Socorro School of Mines said could not exist in New Mexico. Now, after all the previous body blows I find myself again confronted by a Goliath bent on stopping any mining in the area.

L9-081

Perhaps the FAA will recognize the possibility/probability that America's National Interests also include an in-house abundant supply of critical metals that will help us become energy and metal independent?

Respectfully,
Joseph Cummins

7/24/2008

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Response to comment letter L9:

L9-001

The FAA is not involved in the acquisition of land for an Applicant's proposed facility and is not part of any negotiations regarding restrictions on use of that land. The Applicant provides the information regarding the property to FAA for use in the EIS analysis.

The New Mexico State Land Office administers the property (with the exception of the private holdings) within the proposed Spaceport America boundaries. NMSA has negotiated a lease of that property with the State Land Office – the lease contains stipulations negotiated by the State Land Office and the NMSA. The FAA was not a part of those negotiations.

L9-002

Appendix E of the EIS reports the current commercial mining activity and resources, which is based on information obtained from the BLM. There are currently no prospects nor production of mineral resources within the project boundaries. The consideration of alternative sites for the proposed Spaceport America is discussed in Section 2.4.2 and Appendix C.

L9-003

The EIS reports on the current knowledge about mineral resources and extraction thereof in the project area in Appendix E.

L9-004

Thank you for your comment.

L9-005

Appendix E of the EIS reports on the current knowledge about mineral resources and extraction thereof in the project area.

L9-006

The FAA provided opportunities for the involvement of stakeholders with regard to the environmental analysis conducted for this EIS. A Notice of Intent was published in the Federal Register on January 24, 2006. Public scoping meetings were held in Truth or Consequences, New Mexico on February 15, 2006, and in Las Cruces, New Mexico on February 16, 2006. The BLM, as a cooperating agency, was involved extensively in the development of the EIS and was a key source of information regarding mining and mining resources in and near the project area.

L9-007

The FAA provided opportunities for the involvement of stakeholders with regard to the environmental analysis conducted for this EIS. A Notice of Intent was published in the Federal Register on January 24, 2006. Public scoping meetings were held in Truth or Consequences, New Mexico on February 15, 2006, and in Las Cruces, New Mexico on February 16, 2006. The BLM, as a cooperating agency, was involved extensively in the development of the EIS and was a key source of information regarding mining and mining resources in and near the project area. The EIS reports on the current knowledge regarding mineral resources and extraction thereof in the project area. The Spaceport America boundaries encompass land owned by private landowners and land administered by the NM State Land Office. There is no BLM land within the proposed boundaries.

L9-008

Thank you for your comment.

L9-009

The statement describes the NMSA's purpose for the action, and does not make mention or comparison with other types of commercial activity.

L9-010

The FAA's purpose addresses commercial launch and reentry activities. It does not address all commercial activities, such as mining.

L9-011

Mineral resources and mining activities are addressed in Appendix E.

L9-012

References are placed throughout the document so that the reader can examine the source material themselves.

L9-013

Mineral resources and mining activities are addressed in Appendix E.

L9-014

During consultation with the consulting parties, it was determined that a Programmatic Agreement would be better suited to this project than a memorandum of agreement. As described in Section 4.5.1.3, the Programmatic Agreement to address adverse effects to historic

properties was developed in consultation with the NM State Historic Preservation Officer and the consulting parties. It is attached as Appendix P.

L9-015

The socioeconomic information in Section 4.10.1 supports the analysis results as reported in the EIS.

L9-016

Environmental effects to children are discussed in Section 4.10.3. Health and safety are discussed in Appendix G. Air quality is discussed in Section 4.6. These analyses support the finding that there would be no significant adverse impacts to public health.

L9-017

Thank you for your comment.

L9-018

Section 4.11, Energy Supply and Natural Resources does not address mineral resources or mining activities. Mineral resources and mining activities are addressed in Appendix E.

L9-019

The statement is based on the analyses presented in the body of the EIS. The FAA collected information on mineral resources and mining activities from various federal and state agencies, including the BLM.

L9-020

The statement applies to the Spaceport America project site. As stated in Sections 4.1.1.1 and 4.1.1.2 of the EIS, NMSA cannot block access to BLM-administered lands.

L9-021

The statement applies to the Spaceport America project site. As stated in Sections 4.1.1.1 and 4.1.1.2 of the EIS, NMSA cannot block access to BLM-administered lands.

L9-022

As described on page ES-16 under **Mitigation Measures**, the measures presented here are conceptual. Specific measures to address significant adverse effects to historic properties will be developed through the Section 106 process of the National Historic Preservation Act, which is

regulated by 36 CFR Part 800.6. This process includes development of a Programmatic Agreement (attached in Appendix P) and associated mitigation plans.

L9-023

As described on page ES-16 under **Mitigation Measures**, the measures presented here are conceptual. Specific measures to address significant adverse effects to historic properties will be developed through the Section 106 process of the National Historic Preservation Act, which is regulated by 36 CFR Part 800.6. This process includes development of a Programmatic Agreement (attached in Appendix P) and associated mitigation plans. The development of these mitigation measures address impacts to cultural resources, and are not associated with mineral resources or mining activities.

L9-024

The FAA collected information on mineral resources and mining activities from federal and state agencies, including the BLM, and this information is included in Appendix E of the EIS.

L9-025

The FAA's analysis is based on the best available information regarding the availability of mineral resources at the Spaceport America project site, and this information is included in Appendix E of the EIS.

L9-026

Thank you for your comment.

L9-027

The MOAs referred to are between the FAA and each of the cooperating federal agencies, BLM, NPS, NASA, and WSMR, and address each agency's role in the development of the EIS. These MOAs have been added to the EIS in a new Appendix O. A reference to Appendix O has been added to Section 1.3.2.

L9-028

Thank you for your comment.

L9-029

Thank you for your comment.

L9-030

This EIS only addresses the proposed activities at the proposed site in the Jornada del Muerto valley. Effects of mining to wildlife populations are not the subject of this EIS.

L9-031

This EIS only addresses the proposed activities at the proposed site. Because future expansion of mining activities in the general area is not forecasted, the analysis of cumulative effects from mining traffic in addition to Spaceport America traffic was not conducted.

L9-032

NMSA is developing an MOU in consultation with the BLM that addresses procedures to be implemented for vehicle recovery when a launch vehicle inadvertently lands on BLM-administered lands.

L9-033

As stated in Sections 4.1.1.1 and 4.1.1.2 of the EIS, NMSA cannot block access to BLM-administered lands.

L9-034

The FAA's analysis is based on the best available information regarding the availability of mineral resources at the Spaceport America project site. The FAA considers the analysis to be valid.

L9-035

Thank you for your comment.

L9-036

The FAA is not involved in an Applicant's acquisition of land for a project. The FAA was not part of the negotiations between the NM State Land Office and the NMSA.

L9-037

The FAA's Notice of Intent for the Spaceport America (previously known as the Southwest Regional Spaceport) EIS was published in the Federal Register on January 24, 2006. Scoping meetings were held in Truth or Consequences, New Mexico on February 15, 2006, and in Las Cruces, New Mexico on February 16, 2006.

L9-038

The FAA defined land use per FAA Order 1050.1E, Change 1.

L9-039

Thank you for your comment.

L9-040

Thank you for your comment.

L9-041

Thank you for your comment.

L9-042

Thank you for your comment.

L9-043

Immediately adjacent lands are those sharing a border with the proposed Spaceport America boundaries.

L9-044

The discussion of Section 4(f) in Section 3.2 of the EIS now reflects that the proposed action does not result in any direct or constructive use of Section 4(f) lands. This statement has been removed from Section 3.1.

L9-045

Opportunities for local residents to learn about the project and the EIS analysis were provided by the FAA in accordance with Council on Environmental Quality and FAA regulations. The FAA's Notice of Intent for the Spaceport America (previously known as the Southwest Regional Spaceport) EIS was published in the Federal Register on January 24, 2006. Scoping meetings were held in Truth or Consequences, New Mexico on February 15, 2006, and in Las Cruces, New Mexico on February 16, 2006. In addition, the NMSA conducted its own outreach to local residents regarding the proposed project.

L9-046

The FAA is not involved in an Applicant's acquisition of land for a project. The FAA was not part of the lease negotiations between the NM State Land Office and the NMSA.

L9-047

The FAA is not involved in an Applicant's acquisition of land for a project. The FAA was not part of the negotiations between the NM State Land Office and the NMSA.

L9-048

Thank you for your comment.

L9-049

Thank you for your comment.

L9-050

Proposed boundary is a term used throughout the EIS to describe the boundary surrounding the approximately 26 square miles of the proposed Spaceport America project site. *Immediately adjacent lands* are those lands sharing a border with the proposed Spaceport America boundaries.

L9-051

Thank you for your comment.

L9-052

Thank you for your comment.

L9-053

As described in Section 3.2.2.3, the Farmland Protection Policy Act is intended to minimize the unnecessary and irreversible conversion of farmland to nonagricultural uses. FAA has determined in its guidance for NEPA implementation that the potential effects to prime and unique farmland need to be addressed in their NEPA documents.

Potential health impacts are addressed in Section 4.6 and 4.7 of the EIS.

L9-054

The anticipated noise levels during operations are presented and addressed in Section 4.3.1.2 of the EIS.

L9-055

The FAA consulted with BLM and NPS to determine the methodology to use to assess visual resource impacts. BLM is commonly regarded as the federal agency with the most developed process for assessing impacts to visual resources, and it was agreed that the BLM VRM classes and objectives would be used for this EIS's analysis.

L9-056

The process for determining scenic quality is described in Section 3.4.4.2.

L9-057

Thank you for your comment.

L9-058

The air quality analysis of launches is presented in Section 4.6.1.2.

L9-059

This EIS uses the significance thresholds for air quality as defined in FAA Order 1050.1E, Change 1. Attainment and nonattainment measures are the standard metric used to determine if there would be a significant impact on air quality.

L9-060

The U.S. Army Corps of Engineers, Albuquerque District, has concurred with the FAA's determination that the Jornada del Muerto basin is a closed basin that is not hydrologically connected to the Rio Grande basin.

L9-061

The FAA analysis of potential impacts to ground water quality in Section 4.7.1.2 complies with FAA Order 1050.1E, Change 1.

L9-062

The FAA is not privy to the consultation between USFWS and the mining community.

L9-063

The FAA used significance thresholds as defined in FAA Order 1050.1E, Change 1 to determine that there would be insignificant levels of contamination.

L9-064

Perchlorate emissions and health risks are addressed in Section 4.6.3 "Impacts to the Atmosphere from Accidents." Perchlorates would only be used in solid rocket motors (SRMs). Under normal conditions, the ammonium perchlorate in SRMs would be consumed during the launch, resulting in emissions of chlorine and indirectly as HCl. These emissions are quantified in Section 4.6.1.2.

The probability of a catastrophic accident involving an SRM is very low. As discussed in Section 4.6.1.3, in the event of an accident, there is a potential for perchlorate to be deposited to vegetation and groundwater, which could in turn be used for human, bovine, or wildlife consumption. It is also possible that in unburned segments, the ammonium perchlorate (in a binder matrix) could fall into water bodies (standing water in arroyos or stock tanks) and slowly dissolve with only minimal local impacts. Because perchlorates are naturally occurring in the Southwest, it is likely that elevated perchlorate levels resulting from an accident would not be distinguishable above natural background levels.

As mentioned in Section 4.6.1.3, perchlorate can act as a competitive inhibitor of biochemical reactions, such as iodine transport in the human thyroid, but currently available information on the potential risk to human health from exposure to perchlorate is inconclusive. The National Research Council (NRC) recently completed a study that considered the health impacts from perchlorate exposure. The results of this study and an overview of additional relevant studies on the impacts of perchlorate on human health and the environment are discussed in Appendix M of the Ballistic Missile Defense System (BMDS) Programmatic Environmental Impact Statement (available at http://www.mda.mil/peis/html/resource.html). Neither the NRC study nor the BMDS analysis indicate a link between perchlorate exposure and cancer risk. In fact, some of the studies reviewed conclude that there is no cancer risk associated with exposure to perchlorates.

L9-065

Please see response to comment 064 above.

L9-066

The socioeconomic and children's health and safety risk analyses follow the requirements of FAA Order 1050.1E, Change 1.

L9-067

The land use analysis conforms to FAA Order 1050.1E, Change 1 requirements.

L9-068

The last sentence states that the potential impacts of the proposed project on land use would not be significant. It does not declare that compatible land uses are not significant.

L9-069

Certain facilities would be fenced for security and safety reasons, including the fuel storage area, horizontal launch area, and wastewater treatment facility.

L9-070

The FAA considers the air quality analysis (Section 4.6.1.2) and geology and soils analysis (Appendix D) to be valid.

L9-071

The agreement referenced is now the Programmatic Agreement described in Section 4.5.1.3.

L9-072

The FAA considers the noise analysis (Section 4.3.1.2) to be valid as presented, as it meets all requirements in FAA Order 1050.1E, Change 1.

L9-073

The FAA noise analysis (Section 4.3.1.2) and wildlife analysis (Section 4.8.1.2) were based on the best available information and followed the requirements of FAA Order 1050.1E, Change 1.

L9-074

The mitigation measures listed are conceptual. As stated in the Programmatic Agreement attached in Appendix P, mitigation plans will be developed that detail the measures to be implemented.

L9-075

The FAA considers the air quality analysis presented to be valid, as it conforms to the requirements of FAA Order 1050.1E, Change 1.

L9-076

The FAA considers the environmental justice analysis presented to be valid, as it conforms to the requirements of FAA Order 1050.1E, Change 1.

L9-077

Thank you for your comment.

L9-078

Thank you for your comment.

L9-079

Thank you for your comment.

L9-080

The FAA collected information on mineral resources and mining activities from various federal and state agencies, including the BLM. There was no evidence for future mineral development in the vicinity except for oil and gas.

L9-081

Thank you for your comment.

Comments on the Draft EIS.

Spaceport America Draft EIS license request:

1- **License Request:**
Includes both alternative 1 and 2. The license is good for 5 years and than must be renewed!
a. Note vertical launches are up/ down sub-orbital only, no orbital launches would be allowed because of the dangers associated with falling debris. Yes even up/ down launches have the dangers associated with falling debris, just closer to NM. L10-001
b. The Spaceport is funded at $200,000,000+ by the windfall profits tax on NM oil production.
c. The Spaceport will be funded by an additional gross receipts tax of $9,000,000 a year from Dona Ana County alone. Some or all of this could be returned to the citizens.
2- **Alternative (1):** Would allow horizontal launch vehicles only (Virgin Galactic or one of their many competitors now using some of the many of the other US (8) and world wide (30) Spaceports).
a. Some of the windfall profits taxed on oil would be returned to the general fund and hopefully the taxpayers as gas tax relief.
3- **Alternative (2):** Vertical Launch vehicles only (land at the Spaceport or WSMR).
a. Some of the windfall profits taxed on oil would be returned to the general fund and hopefully the taxpayers as gas tax relief.
4- **No Action Alternative**: No Spaceport would be built.
a. What is left of the windfall profits taxed on oil would be returned to the general fund and hopefully the taxpayers as gas tax relief.

Summary of the Draft EIS:
1- 501 pages, 13.30 Megabytes of repetition and poor layout. L10-002
2- The draft EIS fails to note the other **existing FAA licensed US Spaceports** All of whom are not doing well financially
a. State of California (2): Edwards for Orbital vertical launches and Mojave for Horizontal and sub-orbital vertical launches.
b. State of Alaska (1): Orbital and sub-orbital vertical and horizontal launches.
c. State of Virginia (1): Orbital and sub-orbital vertical and horizontal launches. L10-003
d. State of Florida (1): Orbital and sub-orbital vertical and horizontal launches.
e. State of Texas, (1), Blue Origin Spaceport, Private: Sub-orbital vertical launches.
f. State of Oklahoma (1): Sub-orbital horizontal launches.
g. Boeing "Sea Launch"(1): Orbital and sub-orbital Vertical launches from international waters.
3- The draft EIS also fails to mention the 30+ spaceports world wide who are not encumbered by US laws, regulations and legal tort system and who are heavily funded by their governments.

Other overlooked problems with the Draft EIS:
1- WSMR is listed as an area which the vertical launch rockets and payloads could land.
a. WSMR is growing along with Fort Bliss. The opportunity to be dropping items in thru their airspace and onto their land will be declining as WSMR, Fort Bliss and Holloman become the largest military bases in the free world within the next several years.
b. UP Aerospace proved dramatically with its two vertical sub-orbital launches that it could not predict, track or locate launched payloads for several weeks each of its two times. This is a reckless endangerment not only to the users of "Our Public Lands" which surround the small state spaceport, but also to any populated area within the 60+/- mile range of a wild suborbital shot gone bad! L10-004
2- Recreational land use (3.1.4.5) studies have been limited to the State land to be occupied by the spaceport.
a. The BLM managed Public Lands around the Spaceport would be adversely affected by falling debris from vertical launch vehicles. L10-005

Comment L10. Page 1 of 2

b. **"OUR PUBLIC LANDS"** have users that include all citizens of the US and not just local residents. Our Public Lands are used by:

i. **Hikers**
ii. **Bikers**
iii. **Pleasure drives**
iv. **Motorcycle and ATV riders**
v. **Birders**
vi. **Rock hounds**
vii. **Photographers, artists**
viii. **Astronomers**
ix. **Hunters**
x. **Geologists, prospectors**
xi. **Horseback riders**
xii. **Historians**
xiii. **Archeologists**
xiv. **Campers**
xv. **Picnickers**
xvi. **Etc, Etc**

Requests and Alternatives not compatible with safety and the use of Our Public Lands:

1- Vertical launches would endanger the safety of the general public in a 60+/- radius of the site. L10-006
2- Vertical launches would be inconsistent with the growth of WSMR. L10-007
3- Vertical launches would interfere with the most common use of Our Public Lands: Recreation. L10-008

Only Alternative 1 (Horizontal launches) would have a degree of safety and predictability.

Comment L10. Page 2 of 2

Response to comment letter L10:

L10-001

Commercial launch operators would be required to obtain a license or permit to conduct launches from the site. Commercial launch operators would be required to provide the FAA with flight hazard information. The FAA would analyze the hazards as appropriate.

L10-002

Thank you for your comment.

L10-003

The existence of other spaceports and their financial condition are not considered germane to the purpose of the EIS, which is the analysis of potential environmental impacts from the proposed Spaceport America.

L10-004

Spaceport America would be required to schedule and coordinate all launches with White Sands Missile Range because WSMR controls the airspace in which operations would occur. Coordination with WSMR is addressed in Section 2.1.3.4 of the EIS, under Support Services.

Up Aerospace is considered an amateur launch. Commercial space launch operators would be required to apply for a license or permit from the FAA to conduct launches at Spaceport America. Commercial launch vehicle operators would be responsible for providing the FAA with the flight hazard or operating area. The safety hazards would be analyzed as appropriate.

L10-005

The analysis of potential impacts to recreational land use addresses both BLM and State Trust Lands.

The potential health and safety impacts to members of the public from launch operations are discussed in Section G.2.1.4.

L10-006

Thank you for your comment.

L10-007

Thank you for your comment.

L10-008

Thank you for your comment.

Spaceport America Environmental Impact Statement (EIS) – COMMENTS & QUESTIONS submitted to the public record

August 4, 2008

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Questions submitted to the FAA concerning the DEIS process for Spaceport America:

1. There was an initial EIS Spaceport public meeting held in Truth or Consequences on February 15th 2006.Why has it taken 2 ½ years for the FAA to schedule and hold this Public Scoping Meeting? L12-001
2. I understand that the 2006 Spaceport EIS effort that was being handled by New Mexico State University Physical Science Laboratory (PSL) was scrapped. I am concerned that the EIS process might have been tainted for political or other reasons. What are the exact reasons the 2006 spaceport EIS process being handled by PSL was scrapped? (see Attachment "A" for more detail) L12-002
3. I understand that the 2006 Spaceport EIS effort that was being handled by New Mexico State University Physical Science Laboratory (PSL) was scrapped. Where there improprieties or potential conflicts of interest identified? (see Attachment "A" for more detail)
4. What assurances does the public have that the current EIS process being handled by Tetra Tech (a California-based engineering firm) is not providing biased or inaccurate information concerning the EIS process or is being minuplied by politicians, government agencies or entities, queasy-municipal organizations, corporations or others? (see Attachment "A" for more detail) L12-003
5. The FAA has a recent pattern of safety and regulation oversight. Recent new reports have identified that the FAA does not have a very good track record concerning their responsibilities, safety inspections and proper process regarding airliner safety inspection requirements. I understand that the FAA admits a breakdown in safety regulations, oversight of Southwest Airlines. What assurances does the public have that commercial spaceflight safety inspections at Spaceport America will be handled properly and all safety regulations will be followed? (see Attachment "B" and "C" for more detail) L12-004
6. What written policies are in place to handle possible FAA oversight and/or FAA regulation oversight? (see Attachment "B" and "C" for more detail) L12-005

Page 1 of 2

JEFFREY W. HANSON

Monday, August 04, 2008.max

7. Will operations at Spaceport America be handled professionally and responsibly by the FAA? If not the FAA, what agency or entity will be responsible? (see Attachment "B" and "C" for more detail) L12-006
8. Human impact data (way of life/ quality of life) is very important to me concerning the Spaceport America EIS process/ NEPA requirements. What assurance does the public have that the human population affected by Spaceport America is being considered in a positive way and in their best interest? L12-007
9. The human impact is important to the citizens living and working near Spaceport America. What allowances will be in place that provides the public, individuals, families, ranchers and businesses compensation if they are negatively affected or displaced or there is a deviation from NEPA requirements concerning this EIS process and Spaceport America? L12-008
10. I understand that the FAA provides a license and the authority to launch commercial spacecraft from Spaceport America. Has the FAA received a launch site operator's license application concerning Spaceport America? Has an operator's license or temporary operator's license been issued to Spaceport America? L12-009
11. Does the FAA allow public comment regarding an operator's license for Spaceport America? Has the FAA received an application or provided Spaceport America a launch site operator's license? L12-010
12. When will the Record of Decision (ROD) be signed for Spaceport America? L12-011
13. Will the public be allowed to comment on the final EIS and the ROD concerning this EIS process for Spaceport America? L12-012

Respectfully submitted.

Jeffrey W. Hanson

Page 2 of 2

FAXed + EMAILed and mailed 4-4-08 9:30 AM

TOTAL OF 9 PAGES SUBMITTED including ATTACHMENTS

Monday, August 04, 2008.max

Comment L12. Page 2 of 9

LAS CRUCES SUN-NEWS.com

Space launch facility on hold

By Jose L. Medina Sun-News reporter

Article Launched: 01/02/2008 12:00:00 AM MST

LAS CRUCES Groundbreaking for Spaceport America has been pushed back to November 2008 after the facility's environmental impact statement, or EIS, had to be scrapped, a spaceport official said. The time line for opening the facility, however, has not changed, a spaceport official said.

Officials had said earlier this year that a groundbreaking ceremony could have taken place in the first quarter of 2008. But New Mexico Spaceport Authority Chairwoman Kelly O'Donnell said the Federal Aviation Administration expressed concerns about a potential conflict of interest with the environmental impact statement by another state agency: the New Mexico State University Physical Science Laboratory.

The EIS is a part of the FAA licensing process. Tetra Tech a California-based engineering firm has been contracted to perform the EIS.

"In that transfer of data, there were some balls dropped, meaning that some of the work that had been done, had to be redone," O'Donnell said.

O'Donnell said the facility is still on track to open in early 2010, which has been intended to match Virgin Galactic's time line for when their technology is ready to launch.

Virgin Galactic is the spaceport's anchor tenant. The company has yet to sign a lease, but is expected to do so in the coming months.

O'Donnell also said more unannounced launches like one in early December from the spaceport site in southern Sierra County were likely, due to the sensitivity of emerging technologies.

The only company to launch from the spaceport site recently completed its third launch attempt from the site in an unannounced launch Dec. 19. The noon-time launch by UP Aerospace of Connecticut reached its planned altitude of 2,500 feet, the NMSA said in a news release after the launch.

"Essentially, these are very early-stage technologies they are testing," O'Donnell said. "As such, they don't want people to see them because they are trade secrets."

UP Aerospace said the launch was for the purpose of testing proprietary technology for one of its clients. UP Aerospace President Jerry Larson declined to get into the specifics of the Dec. 19 flight.

"The details of the launch that we just had are going to be released at some point," Larson said. "Folks down there will get a chance to find out who it was that we were working with, what it was all about and actually seeing video and photographs."

The company had tried twice before. The first, in September 2006, launched successfully but fell far short of its goal of reaching space. The second attempt, in April 2007, surpassed its goal and reach an altitude of 73 miles.

Jose Medina can be reached at jmedina@lcsun-news.com

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ATTACHMENT "B"
4-PAGES

FAA admits breakdown in safety regulation, oversight of Southwest

11:05 AM CDT on Friday, April 4, 2008

By DAVE MICHAELS / The Dallas Morning News
dmichaels@dallasnews.com

WASHINGTON – Under tough questioning from Congress, top federal regulators admitted Thursday to an embarrassing, years-long breakdown in their oversight of Southwest Airlines.

The Federal Aviation Administration's top safety officer, Nicholas A. Sabatini, acknowledged that "we didn't know the gravity of what was going on" in the Irving office supervising Southwest. One FAA manager fought with other supervisors and repeatedly blocked his inspectors' investigations of the airline.

That pattern came to a head last year, when the manager allowed Southwest to continue flying planes after it disclosed a failure to completely inspect dozens of planes. The manager permitted Southwest to escape penalty by self-reporting the error, even though his inspectors had questioned the airline's internal controls for preventing such failures.

"It is misfeasance, malfeasance, bordering on corruption," said Rep. James Oberstar, D-Minn., chairman of the House Transportation and Infrastructure Committee, which held the hearing. "If this were a grand jury proceeding, I think it would result in an indictment."

The FAA admitted to serious lapses only a day after asserting that its oversight model was strong and saying that Mr. Oberstar's investigation was irrelevant to reforms it announced Wednesday. Dallas-based Southwest faces a $10.2 million fine for its role in the controversy.

"What has happened here was egregious, and we will apply the full measure of the law," said Mr. Sabatini, associate administrator for air safety.

Herb Kelleher, the airline's executive chairman and co-founder, apologized for the airline's lapse but said the company never risked the safety of passengers.

"While there was clearly a mistake with our regulatory compliance, we wanted to assure ourselves that safety of flight was not an issue, and we have done that," Mr. Kelleher said.

The stars of Thursday's hearing were clearly two FAA maintenance inspectors who blew the whistle on problems at Southwest, Charalambe "Bobby" Boutris and Douglas E. Peters.

Mr. Boutris said he raised questions for years about the airline's internal controls before supervisors removed him from his job based on anonymous allegations that a federal watchdog later called "baseless." Mr. Boutris later reported a death threat that is being investigated by the FBI. On Thursday, Mr. Sabatini called him a "hero."

"There is no accountability through the ranks in the FAA," Mr. Boutris told the lawmakers.

Mr. Peters said an FAA manager tried to discourage him from filing a complaint about the treatment Southwest received and "unethical actions" by inspectors.

He said the manager pointed to a photo of Mr. Peters' wife and children and suggested that an attempt to push the issue could "jeopardize yours and her career trying to take down a couple of losers."

Mr. Peters filed his complaint anyway, and later alerted congressional investigators to the problems. He said Thursday that "senior FAA management knew about the issues within the Southwest" oversight office for years and didn't do anything about them.

The inspectors' allegations were mostly supported by independent investigations by the U.S. Department of Transportation's inspector general and the U.S. Office of Special Counsel.

Calvin L. Scovel III, the inspector general, told lawmakers that the FAA's Irving office was in turmoil.

"A bigger struggle was being waged for the heart and soul of that organization," Mr. Scovel said. "Not much, if anything, was coming up to [FAA] headquarters."

One inspector who requested a transfer from the Southwest office reported seeing his manager "giving the middle finger" to another supervisor and complained about "militant attitudes" that undermined the group's work.

Mr. Scovel's review also raised questions about the FAA's approach to oversight. He highlighted abuses of the FAA's regulatory partnership programs, which allow airlines and air crews to escape punishment by self-reporting errors.

The inspector general's review found that the FAA allowed Southwest to self-disclose errors without making sure that previous problems were fixed.

"A partnership program that does not ensure underlying problems are corrected is less likely to achieve the objective of improving the margin of safety," Mr. Scovel said.

The former top manager in Mr. Boutris' office, Michael C. Mills, blamed Mr. Boutris' former supervisor, Douglas T. Gawadzinski, for abusing the partnership programs.

Mr. Gawadzinski was "unusually lenient with the carrier in several areas, especially in investigating and documenting violations of the federal aviation regulations," Mr. Mills said.

The inspector general found that Mr. Mills ordered reviews of Mr. Gawadzinski's decisions as early as 2005. Those reviews found problems, but the FAA didn't remove Mr. Gawadzinski until last year, when he was transferred during an investigation of the Southwest issues.

Mr. Gawadzinski was not called to testify and has declined to comment.

Several lawmakers appeared nonplussed by how the FAA's top leaders in Washington couldn't have known about the problems roiling the Irving office.

"What do you have to do to get fired there?" asked Rep. Eddie Bernice Johnson, D-Dallas.

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Mr. Kelleher and Gary Kelly, the airline's chief executive, both said they were unaware until this week of widespread problems in the FAA office that monitored Southwest.

Recognizing how the controversy has shaken the airline, Mr. Kelleher began his remarks by reminding lawmakers of its "superlative, 37-year" safety record, and the impact of its business model in reducing airline fares over the years.

Mr. Kelleher criticized reports that his airline failed to inspect the jets. The problem was much smaller, he said.

Because of a record-keeping error, Southwest has said the airline failed to survey a piece of fuselage that amounted to less than 1 percent of the area that needed to be checked.

"That was our mistake, but nobody realized it for quite some time," Mr. Kelleher said. The carrier wasn't just "rumbling around the skies ... not having inspected cracks on its airplanes."

Mr. Kelleher also said Southwest's Boeing 737 jets were manufactured so that small cracks would not become large ones.

In a briefing with reporters, Mr. Boutris suggested that it wasn't clear how serious the risk was.

"I would be concerned, especially when the airplane has cracks in it," he said. "There is no data that shows how long an airplane can fly with cracks in the fuselage."

Speaking to reporters after the hearing, Mr. Kelleher suggested that lawmakers had used Southwest's mistakes to raise larger questions about the FAA's oversight model.

"This of course, with respect to Southwest, happened to pop up at an appropriate time to raise that issue," he said.

The witnesses appeared split about whether the problems in the Irving office demanded a wider look at oversight offices. Several inspectors said that office was unique in terms of the atmosphere that prevented inspectors from doing their work.

"What I have been told is that it could potentially be systemic, and I take that very seriously," Mr. Sabatini said.

TIMELINE

Federal investigations traced a four-year period during which regulatory supervision of Southwest Airlines in North Texas broke down. Investigations by Congress, the U.S. Department of Transportation's inspector general and the Federal Aviation Administration found:

Dec. 2003 –An FAA maintenance inspector who supervised Southwest, Charalambe "Bobby" Boutris, informed his boss that he found discrepancies in Southwest's system for tracking its compliance with federal aviation regulations. He pushed for an investigation, but his manager didn't approve one.

Early 2005 –Mr. Boutris found that his manager, Douglas T. Gawadzinski, allowed Southwest to change its maintenance practices without formal FAA approval. A higher-ranking supervisor later confirmed it.

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Sept. 2005 –A new manager in the oversight office, Michael Mills, raised questions about Mr. Gawadzinski's decision to let Southwest escape penalties for regulatory lapses.

Dec. 2005 –An internal FAA review found that Mr. Gawadzinski misclassified five Southwest violations as "carrier notifications," which don't require the airline to fix the problem.

Jan. 2006 –Mr. Gawadzinski again prevented Mr. Boutris from starting an investigation of Southwest's compliance with airworthiness directives.

June 2006 –An FAA regional team found personnel conflicts in the office. One employee reported to federal investigators that "Southwest was using these relationship tensions to its advantage."

Jan. 2007 –Mr. Gawadzinski assigned Mr. Boutris to an audit of Southwest's procedures for following airworthiness directives. Southwest asked for him to be removed, but Mr. Boutris remained on the task.

March 15, 2007 –Southwest told Mr. Gawadzinski that some of its Boeing 737 fleet may have missed a federally required inspection. The airline found the error while preparing for Mr. Boutris' review.

March 19, 2007 –Mr. Gawadzinski allowed the airline to escape punishment for the violation. Southwest scheduled inspections for 46 jets but didn't stop flying them – a violation of federal rules.

March 23, 2007 –The inspections found cracks in the skin of six planes.

March 28, 2007 –Based on an anonymous complaint, Mr. Boutris was removed from his job and put under investigation. He was later cleared.

April 2007 –Another FAA regional team returned to the Irving office and found that "the office environment had actually worsened" over concerns about the way Southwest's problems were handled. The FAA began an investigation of Mr. Gawadzinski's handling of the case.

June 2007 –Another inspector, Douglas E. Peters, went to congressional investigators about problems with oversight of Southwest.

Feb. 2008 –Rep. James Oberstar, chairman of the House Transportation and Infrastructure Committee, announced a hearing expected to be critical of FAA oversight.

March 6, 2008 –The FAA announced a $10.2 million fine against Southwest for flying planes that missed some fuselage checks.

April 2, 2008 –The FAA announced reforms to address the safety lapses, including a rule to prevent inspectors from going to work immediately for airlines they supervised.

April 3, 2008 –Mr. Boutris and Mr. Peters testified at a hearing led by Mr. Oberstar.

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ATTACHMENT "C" 2-PAGES

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FAA NEEDS CONTINUED PLANNING AND MONITORING TO OVERSEE THE.

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FAA NEEDS CONTINUED PLANNING AND MONITORING TO OVERSEE THE.

(From GAO Reports)

Meanwhile, a trade association made up of space tourism companies and spaceports--called the Personal Spaceflight Federation--plans to commission standards for vehicles and their operation, including space flight participant safety, as the space tourism industry develops.[34] The federation believes that ensuring the highest-possible level of safety for the industry and sharing best practices will be essential to promote the safety and growth of the industry. The federation intends to commission an independent standards organization, such as the American Society for Testing and Materials, to develop accredited industry standards for voluntary testing and approval, much as Underwriters Laboratories, an independent organization that tests electrical devices, has done. According to an expert, while companies do not have to submit their products to Underwriters Laboratories for testing, market acceptance is low and liability exposure is high without the Underwriters Laboratories' stamp of approval. The expert believes that a similar approach will work for space flight participants, who are more likely to choose to fly on a launch vehicle that has been approved according to industry standards than on one that has not been approved.

FAA's Dual Role of Promotion and Safety May Pose a Challenge

FAA faces the potential challenge of overseeing the safety of commercial space launches while promoting the industry as the space tourism sector develops. According to our analysis, FAA's current promotional activities have not conflicted with its safety regulatory role; however, industry experts have noted that potential challenges may arise as the space tourism sector develops. FAA is mandated to regulate the commercial space transportation industry to protect public safety and property while encouraging, facilitating, and promoting commercial space launches. According to FAA, its promotional activities include sponsoring an annual industry conference, sponsoring Commercial Space Transportation Advisory Committee meetings and work groups, presenting space-related topics at various aerospace professional association conferences, creating forums at which industry elements network, publishing economic impact studies and launch forecast reports, and conducting outreach to potential license applicants. These are all activities that experts say, and we agree, do not conflict with FAA's safety oversight responsibilities. According to some experts, FAA's promotional activities have not conflicted with the agency's role as a safety regulator because the activities do not involve advocacy for the industry, nor do they increase demand in the industry.

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Furthermore, experts noted that some of these activities promote FAA's safety role. For example, outreach to potential license applicants is a means of ensuring that new launch companies know about and adhere to federal safety regulations. Experts also noted that industry conferences are a means by which FAA can have a dialogue with industry to ascertain new industry trends and issues. FAA also has provided an estimated $200,000 for Mojave Spaceport to complete its environmental impact study, which FAA deems a promotional activity. According to its statutory responsibility, FAA can take action to facilitate private sector involvement in spaceport infrastructure.

However, as the commercial space launch industry matures, there is a greater risk that FAA's role as both the regulator and a promoter of the industry may pose a conflict of interest. Experts told us, and we agree, that as the commercial space launch industry evolves, it may be necessary to separate FAA's regulatory and promotional activities. For example, one expert indicated that with the emergence of space tourism, FAA's dual role could pose a potential conflict of interest between creating an enabling business environment and not compromising safety with regard to the agency's determining when and if it would regulate crew and passenger safety on space launches. Other experts cited Congress's removal of FAA's promotional responsibilities for commercial aviation in 1996 as evidence of the importance of maintaining FAA's focus on safety oversight. In response to the ValuJet accident of May 11, 1996, the DOT Secretary...

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Response to comment letter L12:

L12-001

The EIS process and document follow the Council on Environmental Quality's regulations for National Environmental Policy Act implementation (40 CFR 1500-1508). Any perceived delays were caused by ensuring that all necessary steps were followed and that the EIS addressed all potential environmental impacts from the proposed project as planned.

L12-002

The FAA determined that the New Mexico State University did not meet the standard of being an independent third party capable of assisting the FAA with preparation of the EIS. CEQ regulations (40 CFR 1506.5(c)) require that any environmental impact statement prepared pursuant to the requirements of NEPA shall be prepared by or by a contractor selected by the lead agency (FAA). It is the intent of these regulations that the contractor be chosen solely by the lead agency to avoid any conflict of interest. Contractors are required to execute a disclosure statement prepared by the lead agency (FAA), specifying that they have no financial or other interest in the outcome of the project. PSL did not submit a proposal in FAA's contractor selection process, which was conducted in October 2006. Tetra Tech is the contractor selected by the FAA to prepare the EIS..

L12-003

The FAA's EIS contractor is based out of Albuquerque and the contractor's team is made up of environmental specialists who specialize in the preparation of NEPA documents.

The President's Council on Environmental Quality regulations at 40 CFR 1506.5(c) require that third-party consultants preparing an EIS execute a disclosure specifying that they have no financial or other interest in the outcome of the project. The term "financial interest or other interest in the outcome of the project" for the purposes of this disclosure is defined in the March 23, 1981, guidance "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations," 46 FR 18026-18038 at questions 17a and b. Tetra Tech signed such a disclosure statement before beginning work on the Spaceport America project.

All work conducted and deliverables prepared by Tetra Tech are reviewed multiple times by the FAA and the cooperating agencies. The FAA furnishes guidance and participates in the preparation and independently evaluates the environmental impact statement prior to its approval and takes responsibility for its scope and contents. Information used in the analysis is based on the best available data, which is referenced in the EIS.

L12-004

The FAA has the responsibility, under 49 U.S.C. subtitle IX, ch. 701, to encourage, oversee, and coordinate private sector launches, reentries, and associated services and, only to the extent necessary, regulate those launches, reentries, and services to ensure compliance with

international obligations of the U.S. and to protect the public health and safety, safety of property, and national security and foreign policy interests of the U.S. Further, under 14 CFR part 420 for a launch site operator and 14 CFR part 417 for a launch operator, the licensee must cooperate with the FAA to observe their activities and monitor compliance of the terms and conditions of the license. For each licensed launch, the FAA is present observing the launch operator's activities ensuring the safety of the uninvolved public. In addition, the FAA conducts at least one annual inspection of the launch site to verify launch site compliance of regulations.

L12-005

NMSA would be responsible for the operations of the launch site as required by 14 CFR part 420. The launch site operator licensee would be responsible for operation of its launch site in accordance with the representations in the application upon which the licensing determination is based. The launch vehicle operator would be responsible for ensuring safe conduct of licensed launches complying with 14 CFR § 417. The FAA would monitor compliance of license terms and conditions for both the launch site operator and the launch vehicle operator.

L12-006

NMSA would be responsible for operation of its launch site in accordance with the representations in the application upon which the licensing determination is based and as required by 14 CFR part 420. The launch vehicle operator would be responsible for ensuring safe conduct of licensed launches complying with 14 CFR part 417. The FAA would monitor compliance of license terms and conditions for both the launch site operator and the launch vehicle operator.

L12-007

Information used in the analysis of potential impacts is the best available data, and is referenced. Methods for conducting the analysis are up-to-date and meet the standards of the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of NEPA(40 CFR 1500-1508) and FAA Order 1050.1E, Change 1, *Environmental Impacts: Policies and Procedures*.

L12-008

(1) Section 3.1 Compatible Land Use of the EIS states that the proposed location is entirely on New Mexico State Trust Land except for two private properties and land adjacent to the proposed location belongs to either private holdings, BLM, or WSMR. NMSA has secured long-term access to about 16,000 acres for the proposed Spaceport America through agreements with the New Mexico State Land Office (NMSLO), Sierra County, and the two private ranch operations. The agreements would allow the ranching operations to co-exist with the proposed spaceport and would provide compensation for any losses. For more specific information concerning this compensation refer to Section 3.1.4.2 Land Ownership. Regarding third party compensation please refer to 14 CFR § 440.5, "Any covered claim of a third party for bodily

injury or property damage arising out of any particular licensed activity exceeds the amount of financial responsibility required under § 440.9(c) of this part and does not exceed $1,500,000,000 (as adjusted for inflation) above such amount, and are payable pursuant to 49 U.S.C. 70113 and § 440.19 of this part. A claim of an employee of any entity listed in paragraphs (1)(ii) through (1)(iii) in the Third party definition in § 440.3 of this part for bodily injury or property damage is not a covered claim."

(2) If NMSA requests a launch site license modification, the FAA environmental specialists and general counsel will determine what type of environmental review is required to evaluate those changes per the requirements of FAA Order 1050.1E, Change 1. Additionally, if an individual vehicle operator applies to the FAA for a launch or reentry license or an experimental permit, the FAA will follow all the requirements of the application review process, including an environmental and safety review per §413, License Application Procedures.

L12-009

Section 1.5 of the EIS explains that the action under scrutiny in this EIS is the proposed issuing of a Launch Site Operator License to NMSA to operate a commercial launch site for horizontal and vertical suborbital launch vehicles. A Launch Site Operator License would not authorize NMSA to conduct launches from the site. If the Launch Site Operator License is granted by FAA to NMSA, commercial launch operators would be required to obtain a launch license or experimental permit from the FAA in order to conduct launches at Spaceport America. More detail can be found on the statutory and regulatory requirements at 40 CFR Parts 400-450.

The FAA has received a Launch Site Operator License application from NMSA for the proposed Spaceport America. A decision on the application cannot be made until the appropriate reviews are completed. Amateur class rockets currently operate at the amateur launch site that exists in the proposed Vertical Launch Area.

L12-010

Under the National Environmental Policy Act (NEPA), the FAA is required to solicit public involvement and comment throughout the EIS process. The FAA has incorporated and responded to all of the comments received in this final EIS. The FAA ensures that the NMSA's application conducts a review to ensure that all hazards and risk fall within acceptable levels outlined in the established regulations. The public previously had an opportunity to provide comments during regulation development.

The FAA has received a Launch Site Operator License application from NMSA for the proposed Spaceport America. A decision on the application cannot be made until the appropriate reviews are completed. Amateur class rockets currently operate at the amateur launch site that exists in the proposed Vertical Launch Area.

L12-011

The FAA expects to sign a Record of Decision by the end of 2008.

L12-012

In accordance with FAA Order 1050.1E, Change 1 and the Council on Environment Quality's regulations, the Final EIS will be available to the public for 30 days before the Record of Decision can be issued. A Notice of Availability will be published in the Federal Register announcing when the Final EIS is available, and the FAA will distribute an announcement and copies of the EIS to interested parties on the project mailing list. The public is invited to provide comments on the Final EIS during that time. There is no review and comment period for the Record of Decision.

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THE HOPI TRIBE

CULTURAL PRESERVATION OFFICE

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L13-001

fax cover

Comment L13. Page 1 of 7

AUG-4-2008 08:08 FROM: 5037343665 TO:7869843351 PAGE.017

Ysleta del Sur Pueblo. The Pueblo of Isleta responded that there would be no impact to cultural resources affiliated with their tribe (see Appendix A, Agency and Tribal Correspondence). No responses were received from the other tribes.

The four tribes who responded with interest in the project are considered to have consulting party status in the Section 106 process. They received a copy of the draft on-site cultural resource inventory report; however, no comments were received from the tribes on that report. The consulting tribes have received copies of the draft on-site and well field inventory reports. Final inventory reports, as well as Draft and Final versions of this EIS, will also be made available to them for their review and comment. The FAA continues to contact these four tribes via telephone to inform them of the status of the Section 106 and NEPA processes, and to ensure that their concerns are addressed. This will continue throughout the EIS process.

3.5.4.4 Archaeological/Architectural Resources in the APEs

Archaeological, architectural, and engineering resources were identified within the two APEs from the background research and field surveys of the proposed Project area. Within the Physical APE, the inventory identified 64 archaeological sites and 622 isolated occurrences of artifacts. One of the archaeology sites includes architectural buildings and structures and a water control feature, and a non-visible segment of El Camino Real passes through it. This site, an archaeological site with a visible segment of El Camino Real, and two additional archaeology sites, have been grouped together to form the Aleman Draw Historic District. The resources in this District are related based on the common themes of water availability and transportation. The District is discussed in more detail in Section 3.5.4.7. In the Setting APE, the inventory identified an historic-aged ranch, the Aleman Draw Historic District, and 13 additional archaeological sites along the El Camino Real de Tierra Adentro NHT. El Camino Real is discussed in more detail in Section 3.5.4.6.

Exhibits 3.5-2 and 3.5-3 list the sites and resources identified in the APEs, their eligibility to the NRHP, and the portion of the project area where they are located. Twenty-six sites in the Physical APE are located in portions of the Project area that are not planned for use during construction. These sites are indicated in the table with "not in impact area" under Project Area Location.

All of the identified resources were recorded and evaluated to determine if they are eligible for listing on the NRHP. The FAA is consulting with the NMSHPO and the consulting parties regarding these eligibility determinations. Resources that are eligible are afforded consideration under Section 106 of the NHPA. If a Federal action would adversely affect an eligible resource, then measures must be considered to avoid, minimize, or mitigate the effect (see Section 4.5). NRHP eligibility is currently a recommendation; upon consultation with the consulting parties and the NMSHPO, the FAA will make final eligibility determinations. The 622 isolated occurrences were scattered across all areas of the Physical APE. They include ground stone artifacts, projectile points, other chipped stone tools, chipped stone flakes, ceramic artifacts, fire-cracked rock, and historic glass and metal artifacts. The isolated occurrences are not associated with any site context and are not eligible for listing on the NRHP.

Comment L13. Page 2 of 7

AUG-4-2008 12:35 FROM: 9887343633 TO:9172339313395 PP3513 P.3/7

THE HOPI TRIBE

Benjamin H. Nuvamsa
CHAIRMAN

Todd Honyaoma, Sr.
VICE-CHAIRMAN

June 9, 2008

Stacey M. Zee, Environmental Specialist
Department of Transportation, Federal Aviation Administration
Office of the Associate Administrator for Commercial Space Transportation
800 Independence Ave., SW
Washington, DC 20591

Dear Ms. Zee,

Thank you for your correspondence dated May 30, 2008, with an enclosed *Cultural Resources Survey of 462 Acres Offsite Fiber Optic and Transmission Lines for Proposed Spaceport America, Sierra County, New Mexico*, by Zia Engineering and Environmental Consultants, Inc. Pursuant to Hopi Tribal Council H-94-70, the Hopi Tribe claims ancestral and cultural affiliation to prehistoric cultural groups in New Mexico, including the Archaic and Mogollon prehistoric cultural groups, and therefore we appreciate the Federal Aviation Administration (FAA)'s solicitation of our input and your efforts to address our concerns.

The Hopi Cultural Preservation Office supports identification and avoidance of prehistoric archaeological sites and Traditional Cultural Properties and we consider the archaeological sites of our ancestors to be Traditional Cultural Properties. We have reviewed the enclosed survey report that identifies 18 prehistoric sites, 15 of which are National Register eligible and 2 of which are of undetermined eligibility. We understand 11 eligible or sites of undetermined eligibility will be adversely affected by this proposal, and three others may be adversely effected, including 9 sites described as structural. We have also reviewed *Appendix E (Volume III): Cultural Resource Survey of 181 Acres of Well Water Field and Pipeline Corridor* that identifies three prehistoric sites, one of which is National Register eligible and will be avoided by project activities.

We will be unable to send a representative to the meeting and site visit on July 19, 2008. However, we have determined that this proposal will adversely effect cultural resources significant to the Hopi Tribe and therefore we request continuing consultation. Please provide us with a copy of any draft treatment or data recovery plans for review and comment.

Should you have any questions or need additional information, please contact Terry Morgart at the Hopi Cultural Preservation Office. Thank you again for your consideration.

Respectfully,

Leigh J. Kuwanwisiwma, Director
Hopi Cultural Preservation Office

cc: New Mexico State Historic Preservation Office

P.O. BOX 123 KYKOTSMOVI, AZ 86039 (928) 734-3000

Comment L13. Page 3 of 7

FUL A TIME: 928723435829 TO:917235343951?#P013 #.007

THE HOPI TRIBE

Benjamin H. Nuvamsa
CHAIRMAN

Todd Honyaoma Sr.
VICE-CHAIRMAN

September 5, 2007

Stacey M. Zee, Associate Administrator
Federal Aviation Administration, Office of Commercial Space Transportation
800 Independence Ave., SW
Washington, DC 20591

Dear Ms. Zee,

Thank you for your correspondence dated August 31, 2007, with an enclosed cultural resources survey report, regarding the proposed Spaceport America near Upham, New Mexico. Because the Hopi Tribe claims ancestral and cultural affiliation to prehistoric cultural groups in New Mexico, and the Hopi Cultural Preservation Office supports the identification and avoidance of prehistoric archaeological sites and Traditional Cultural Properties, we appreciate the Federal Aviation Administration's continuing solicitation of our input and your efforts to address our concerns.

As the Hopi Cultural Preservation Office stated in our letter dated August 27, 2007, we will not be able to send a representative to the September 18th and 19th meeting in Truth or Consequences. However, we have reviewed the enclosed cultural resources survey report that identifies 41 prehistoric sites that are recommended as National Register eligible or of undetermined eligibility, including PaleoIndian, Archaic, and Mogollon sites. We note the rare and numerous PaleoIndian and Archaic sites in the project area.

We look forward to being provided with a copy of the determination of effect and hope that all identified and National Register eligible prehistoric sites can be avoided by project activities However, based on the agenda that identifies a proposed Memorandum of Agreement, we have determined that this proposal will likely adversely affect cultural resources significant to the Hopi Tribe.

Therefore, if any of the identified, eligible or undetermined prehistoric sites will be adversely affected by this proposal, we request further consultation and to be provided for review and comment with copies of any draft archaeological testing or data recovery plans.

If you have any questions or need additional information, please contact Terry Morgart at the Hopi Cultural Preservation Office. Thank you again for your consideration.

Respectfully,

Leigh J. Kuwanwisiwma, Director
Hopi Cultural Preservation Office

xc: New Mexico State Historic Preservation Office

P.O. Box 123 — KYKOTSMOVI, AZ — 86039 — (928) 734-3000

Comment L13. Page 4 of 7

AUG-27-2007 08:20 FROM: 9283743625 TO:917033433954PP613 P.5/7

THE HOPI TRIBE

Benjamin H. Nuvamsa
CHAIRMAN

Todd Honyaoma Sr.
VICE-CHAIRMAN

August 27, 2007

Stacey M. Zee, Associate Administrator
Federal Aviation Administration, Office of Commercial Space Transportation
800 Independence Ave., SW
Washington, DC 20591

Dear Ms. Zee,

Thank you for your correspondence dated August 15, 2007, regarding the proposed Spaceport America near Upham, New Mexico. Because the Hopi Tribe claims ancestral and cultural affiliation to prehistoric cultural groups in New Mexico, and the Hopi Cultural Preservation Office supports the identification and avoidance of prehistoric archaeological sites and Traditional Cultural Properties, we appreciate the Federal Aviation Administration's continuing solicitation of our input and your efforts to address our concerns.

In our February 24, 2006, and April 2, 2007, responses to Federal Aviation Administration correspondences from Grace Smith on this proposal, the Hopi Cultural Preservation Office requested a copy of the cultural resources survey report of the project area of potential effect for review and comment.

We will not be able to send a representative to the September 18th and 19th meeting in Truth or Consequences. However, to assist us in determining if this proposal may affect cultural resources significant to the Hopi Tribe, we reiterate our request and look forward to being provided with a copy of the cultural resources survey report of the project area of potential effect for review and comment.

If you have any questions or need additional information, please contact Terry Morgart at the Hopi Cultural Preservation Office. Thank you again for your consideration.

Respectfully,

Leigh J. Kuwanwisiwma, Director
Hopi Cultural Preservation Office

xc: New Mexico State Historic Preservation Office

P. O. Box 123 — KYKOTSMOVI, AZ. — 86039 — (928) 734-3000

Comment L13. Page 5 of 7

APR-4-2007 02:12 HOPI 9587343629 TO:9172393813512FPR61.3 P.6/7

Benjamin H. Nuvamsa
CHAIRMAN

Todd Honyaoma Sr.
VICE-CHAIRMAN

THE HOPI TRIBE

Hopi Cultural Preservation Office

April 2, 2007

Patricia G. Smith, Associate Administrator
Federal Aviation Administration, Office of Commercial Space Transportation
800 Independence Ave. SW
Washington, DC 20591

Dear Ms. Smith,

Thank you for your correspondence dated March 22, 2007, regarding the proposed Spaceport America near Upham, New Mexico. As you know from our February 24, 2006, response to your February 3, 2006, correspondence, the Hopi Tribe claims ancestral and cultural affiliation to prehistoric cultural groups in New Mexico, and therefore the Hopi Cultural Preservation Office appreciates the Federal Aviation Administration's continuing solicitation of our input and your efforts to address our concerns.

As you also know from our previous letter on this proposal, the Hopi Cultural Preservation Office supports the identification and avoidance of prehistoric archaeological sites and Traditional Cultural Properties. Therefore, to assist us in determining if this proposal may affect cultural resources significant to the Hopi Tribe, we reiterate our request to be provided with a copy of the cultural resources survey report of the project area of potential effect for review and comment.

If you have any questions or need additional information, please contact Terry Morgart at the Hopi Cultural Preservation Office. Thank you again for your consideration.

Respectfully,

Leigh Kuwanwisiwma, Director
Hopi Cultural Preservation Office

P.O. BOX 123 KYKOTSMOVI, AZ 86039 (928) 734-3000 FAX: (928) 734-3523

Comment L13. Page 6 of 7

FEB-4-2006 08:14 FROM: 9287343629 TO:9172393435513PP613 P.7/7

THE HOPI TRIBE

Ivan L. Sidney, Sr.
CHAIRMAN

Todd Honyaoma, Sr.
VICE-CHAIRMAN

Hopi Cultural Preservation Office

February 24, 2006

Patricia Grace Smith, Associate Administrator for Commercial Space Transportation
Federal Aviation Administration, Office of Commercial Space Transportation
800 Independence Ave., SW
Washington, DC 20591

Dear Ms. Smith,

This letter is in response to your correspondence dated February 3, 2006, regarding the New Mexico Economic Development Department proposed Southwest Regional Spaceport in Upham, New Mexico. The Hopi Tribe claims cultural affiliation to prehistoric cultural groups in New Mexico, and therefore we appreciate your solicitation our input and your efforts to address our concerns.

The Hopi Cultural Preservation Office supports the identification and avoidance of prehistoric archaeological sites and Traditional Cultural Properties. Therefore we request additional consultation on this proposal. Please provide us with a copy of the cultural resources survey reopirt of the area of potential effect for review and comment.

For your information and future correspondences, Ivan Sidney is now Chairman of the Hopi Tribe. If you have any questions or need additional information, please contact Terry Morgart at the Hopi Cultural Preservation Office. Thank you for your consideration.

Respectfully,

Leigh Kuwanwisiwma, Director
Hopi Cultural Preservation Office

xc: New Mexico State Historic Preservation Office

Comment L13. Page 7 of 7

Response to comment letter L13:

L13-001

Sections 3.5.4.3 and 3.5.4.5 have been revised to include responses received from the Hopi Tribe.

August 6, 2008
Pg 1 of 2

James M. Taylor

Ms. Stacey M. Zee
FAA Environmental Specialist
Spaceport America EIS
c/o ICF International 9309 Lee Highway
Fairfax, Va. 22031
E-mail: SpaceportAmericaEIS@icfi.com
Fax: (703) 934-3951

Questions submitted to the FAA concerning the DEIS process for Spaceport America:

1. What assurance does the public have that the current EIS process being handled by Tetra Tech is not inaccurate and biased due to political pressures applied by politicians and businesses with vested interest in Spaceport America. Could this process be compromised and manipulated by corporations, other government agencies, State-County-and Municipal officials, and other entities or individuals with vested interest in Spaceport America? L14-001

2. In view of the FAA's poor performance in applying their responsibilities to the Public (reference airline safety inspections), what assurance does the public have that the FAA has resumed fulfilling their public responsibility and reclaimed their integrity? In view of the FAA's past record, what guarantees do the public have that the FAA is capable and responsible enough to oversee commercial space flight (a new frontier). L14-002

3. How will volatile rocket fuels be transported and stored? What will the route Route of transport be? Will it travel through populated areas-and how will its movement be protected? L14-003

4. What safety precautions (trained fire departments, emergency medical personnel, environmental protection specialists, etc)will be in place before and during the course of business at SpaceportAmerica? I have questioned Sierra County, NM officials formally about this issue, with no reply. L14-004

5. Where will the funding for the training and addition of the safety personnel listed in question #4 come from? Again, formal questioning of Sierra County and N.M. L14-005

Comment L14. Page 1 of 2

State officials has failed to answer these questions. L14-005

6. The list of hazardous materials and their potential to damage not only the environment, but human and animal life is without end. What assurance does the public have that payloads carried by SpaceportAmerica are in fact environmentally friendly, non-toxic, and will not carry potential damage to the environment or the public? L14-006
7. Will their be any nuclear materials launched as part of experiments and included in payloads, and how will be public be notified of such launches-and protected from potential problems associated with those payloads? L14-007
8. What about noise pollution and its effects on humans, cattle, and habitat? Will there be any sonic booms and potential for home damage (broken windows, etc.)? L14-008
9. Human impact is a serious issue for me-and my neighbors. What assurance do we have that our lives, property, and environment are being fully considered and protected against any incursion or damage caused by SpaceportAmerica? L14-009
10. What system is in effect to compensate individuals, ranchers, or businesses that may be negatively affected, or even displaced, by SpaceportAmerica and their associated operations? L14-010
11. There will be a noticeable increase in highway traffic in the vicinity of Spaceport America. We in the immediate area are in a pristine desert environment. Will Spaceport America be responsible for the increased dust, trash, auto emissions, and other pollution caused by an increase in population and commuters in the area? What will be done to protect local land owners from "people pollution"? L14-011

Respectfully submitted

James M. Taylor

Pg 2 of 2

Comment L14. Page 2 of 2

Response to comment letter L14:

L14-001

The President's Council on Environmental Quality regulations at 40 CFR 1506.5(c) require that consultants preparing an EIS execute a disclosure specifying that they have no financial or other interest in the outcome of the project. The term "financial interest or other interest in the outcome of the project" for the purposes of this disclosure is defined in the March 23, 1981, guidance "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations," 46 FR 18026-18038 at questions 17a and b. Tetra Tech signed such a disclosure statement before beginning work on the Spaceport America project.

All work conducted and deliverables prepared by Tetra Tech are reviewed multiple times by the FAA and the cooperating agencies. The FAA furnishes guidance and participates in the preparation and independently evaluates the environmental impact statement prior to its approval and takes responsibility for its scope and contents. Information used in the analysis is based on the best available data, which is referenced in the EIS.

L14-002

The FAA has the responsibility, under 49 U.S.C. subtitle IX, ch. 701, to encourage, oversee, and coordinate private sector launches, reentries, and associated services and, only to the extent necessary, regulate those launches, reentries, and services to ensure compliance with international obligations of the U.S. and to protect the public health and safety, safety of property, and national security and foreign policy interests of the U.S. Further under 14 CFR part 420 for a launch site operator and 14 CFR part 417 for a launch operator, the licensee must cooperate with the FAA to observe their activities and monitor compliance of the terms and conditions of the license. For each licensed launch the FAA is present observing the launch operator's activities ensuring the safety of the uninvolved public. In addition the FAA conducts at least one annual inspection of the launch site to verify launch site compliance of regulations.

L14-003

Transport and storage of rocket propellants and other fuels is described in Section 2.1.3.2. The route of transport has not been determined, and would be somewhat dependent on the location of the provider. Security measures for the transport of propellants have not been determined by NMSA, but likely would be the responsibility of the provider or transporting contractor.

L14-004

Information on security, fire, and emergency response is presented in Section 2.1.3.4 under Support Services. As part of the Launch Site Operator License application, NMSA is required to develop a launch site accident investigation plan that contains the licensee's procedures for reporting, responding to, and investigating launch site accidents (14 CFR 4520.59).

L14-005

The FAA is not required to analyze the funding of the support services or other aspects of operation of Spaceport America.

L14-006

Section 3.9 and 4.9 of the EIS discuss impacts from hazardous materials as a result of the proposed action. Spaceport America must comply with the primary federal regulations governing the handling and disposal of hazardous materials, chemicals, substances, and wastes as well as regulations adopted by the State of New Mexico. Spaceport America is not expected to produce enough hazardous waste to warrant a permit required for generators of hazardous waste in New Mexico, and would qualify as a Conditionally Exempt Small Quantity Generator (CESQG). Hazardous materials and hazardous waste impacts are not anticipated because they would be handled, stored, and used in compliance with all applicable regulations.

L14-007

At this time, the proposed action for Spaceport America operations does not anticipate launches or other activities involving nuclear materials. If an individual commercial launch vehicle operator applies to the FAA for a launch license, the applicant's safety review document must identify the type and quantity of any radionuclide on a launch vehicle or payload per the requirements of 14 CFR part 415.115, Flight Safety. Per the requirements of 14 CFR part 417.411, the FAA may require a safety clear zone for hazardous operations of licensed launch activities, if necessary. The launch vehicle operator is responsible for establishing restrictions that prohibit public access to a safety clear zone during a hazardous operation. A launch vehicle operator's procedures must verify that the public is outside of a safety clear zone prior to a launch operator beginning a hazardous operation. Safety clear zone controls could include the use of security guards and equipment, physical barriers, and warning signs or other types of warning devices. To use safety clear zone controls outside of the Spaceport boundary the launch vehicle operator would be required to coordinate with the owners or managers of the property where the controls would be used and obtain their permission.

L14-008

The potential for noise impacts is addressed in Section 4.3.1. Sonic booms are discussed in Section 4.3.1.2, subsection Sonic Booms.

L14-009

Information used in the analysis of potential impacts is the best available data, and is referenced. Methods for conducting the analysis are up-to-date and meet the standards of the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of NEPA(40 CFR 1500-1508) and FAA Order 1050.1E, Change 1, *Environmental Impacts: Policies and Procedures*.

L14-010

The FAA will prescribe the amount of financial responsibility a launch operator licensee or permitee must obtain and any adjustments of the amount in a license or permit order issued concurrent with or subsequent to the issuance of a license or permit. Under 14 CFR part 440, the FAA will determine the maximum probable loss from covered claims by a third party for bodily injury or property damage, and the United States, its agencies, and its contractors for licensed activity. The maximum probable loss determination forms the basis for financial responsibility requirements issued in a license or permit order. Evidence of insurance must be provided to the FAA prior to a licensed launch.

L14-011

The central purpose of the EIS is to identify for the public and the agency decision-maker the potential impacts of the proposed action and measures that would mitigate the impacts. Impacts to traffic and transportation are discussed in Appendix H. Potential impacts caused by increased traffic are discussed within each of the resource analyses in Chapter 4. Mitigation measures are discussed in Chapter 6.

Spaceport America Environmental Impact Statement (EIS) – COMMENTS & QUESTIONS submitted to the public record

August 6, 2008

Ms. Stacey M. Zee
FAA Environmental Specialist
Spaceport America EIS
c/o ICF International
9300 Lee Highway
Fairfax, VA 22031
E-mail: SpaceportAmericaEIS@icfi.com
Fax: (703) 934-3951

Questions submitted to the FAA concerning the DEIS process for Spaceport America:

1. I am concerned that for the credibility of the FAA concerning this EIS process. I understand that the FAA is the lead agency for this EIS process. The commercial space business is new, especially when it comes to purpose built commercial spaceports. What assurance does the public have that this EIS process is creditable and the FAA has followed all laws and guidelines concerning the preparation, processing and research regarding the EIS for Spaceport America? Please see the attached news story (attachment(s) A1, A2, and A3 – total of 6-pages) concerning past practice of the FAA violating its own policy. L15-001
2. Hazardous commercial spacecraft cargo is a concern for me especially sense I live within 30 miles of Spaceport America. What emergency plan addresses a spacecraft incident/ accident that contains hazardous cargo? What assurance does the public have that insurance liability will be paid in a timely manor? Who will regulate the insurance company's accountability if there should be an event or accident? L15-002

Respectfully submitted.

Jeffrey W. Hanson

Page 1 of 1

Wednesday, August 06, 2008.max

Comment L15. Page 1 of 7

Deseret News (Salt Lake City): FAA admits violating policy in jet crash Page 1 of 1

ATTACHMENT "A1"

FindArticles > Deseret News (Salt Lake City) > Aug 30, 2006 > Article > Print friendly

FAA admits violating policy in jet crash

LEXINGTON, Ky. (AP) -- The lone air traffic controller on duty the morning Comair Flight 5191 crashed cleared the jet for takeoff, then turned his back to do some "administrative duties" as the aircraft veered down the wrong runway, a federal investigator said Tuesday.

Separately, the Federal Aviation Administration acknowledged violating its own policies when it assigned only one controller to the Lexington tower.

The commuter jet struggled to get airborne and crashed in a field before daybreak Sunday, killing 49 of the 50 people aboard, after taking off from a 3,500-foot runway instead of an adjoining one that was twice as long. Experts said the plane needed at least 5,000 feet for takeoff. The sole survivor, first officer James Polehinke, was in critical condition Tuesday.

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1-PAGE

ATTACHMENT "A2"

dallasnews.com
The Dallas Morning News

FAA admits it failed to respond to complaints about Dallas-Fort Worth air traffic control

3-PAGES

11:29 PM CDT on Thursday, April 24, 2008

By DAVE MICHAELS / The Dallas Morning News
dmichaels@dallasnews.com

WASHINGTON – The Federal Aviation Administration on Thursday acknowledged badly mishandling a whistle-blower's complaints that air traffic control managers in North Texas routinely covered up errors, almost a decade after the practice began.

It was the second time this month that top FAA officials conceded serious failures in a regional office and proposed changes to address the problems. The misconduct continued for two years even after the FAA said it would address the allegations of a controller, Anne Whiteman, who was transferred because colleagues harassed her for exposing the problems.

"We failed as an organization in executing those commitments," said Hank Krakowski, chief operating officer of the FAA's air traffic organization.

The FAA briefed reporters before an independent investigation about the operational errors and treatment of Ms. Whiteman was ready to be released. But the FAA released one finding – that FAA managers misattributed 62 air-traffic control errors to pilots or called them "non-events" between 2005 and 2007.

"Needless to say, the report is disturbing," FAA Acting Administrator Robert A. Sturgell said.

Ms. Whiteman, 51, said she remains "exhausted" and "sad" after nearly a decade of battling the FAA over a culture that permitted close calls and allowed her to be intimidated and threatened by colleagues. The FAA denied her account in 2005.

"There is a strategy to everything they are doing," Ms. Whiteman said Thursday. "Last time, they 100 percent lied to the public about everything that took place."

Expressing regret

FAA officials said they deeply regretted the way whistle-blowers have been treated, though they did not directly address Ms. Whiteman's claims of personal harassment. Earlier this month, the agency conceded that two air-safety inspectors in North Texas were retaliated against for pushing investigations of Southwest Airlines.

"We're not going to stand for this," Mr. Sturgell said. "It's an issue of integrity for me."

Ms. Whiteman reported dangerous actions by controllers in 2002. In 2004, she reported her concerns to the U.S. Office of Special Counsel, which reviews the complaints of whistle-blowers.

After an investigation largely supported her allegations, the FAA committed to make changes in 2005, including more audits and supervision of the Dallas/Fort Worth Terminal Radar Approach Control (Tracon), which handles air traffic throughout North Texas. Ms. Whiteman was transferred to another position out of concern for her safety.

The FAA failed to follow through, however, and Ms. Whiteman and another whistle-blower made new complaints last year of controllers issuing faulty instructions to pilots.

"These problems exist because of a culture of complacency and cover-up in FAA," Scott Bloch, the U.S. special counsel, said Thursday.

The FAA removed the manager and deputy manager at Dallas Tracon in January and assigned them to administrative duties at another station.

Mr. Bloch said Thursday he remains concerned about "a national trend" of suppressing controller errors and the "complicity of higher management" at the FAA.

But Mr. Krakowski said the investigation by the Department of Transportation's inspector general didn't find evidence of problems at other Tracon facilities. The investigation showed that 25 percent of errors were misclassified in Dallas; the rate was about 3 percent elsewhere, he said.

Still, Mr. Krakowski said he wasn't confident "that it can't happen elsewhere" and wanted to reduce the probability.

New measures

To that end, Mr. Krakowski announced new measures, including establishing an independent quality-assurance group to investigate possible errors and make determinations about them. FAA facility managers will no longer have the authority to determine whether an incident was caused by a controller.

The FAA also will introduce a computer system at Dallas Tracon by the end of 2008 that tells controllers how far apart to space planes.

A new vice president for air safety, a former Air Force brigadier general, is to "take a complete stem-to-stern look at the safety organization within air traffic – how it's organized, what we measure and how we hold people accountable," Mr. Krakowski said.

The National Air Traffic Controllers Association, which has fought the FAA over labor issues, blamed the errors on a shortage of controllers.

It called the staffing at Dallas Tracon, with 57 fully certified controllers, "atrocious and dangerously unsafe." The number was 99 in January 2006, according to the union.

"The FAA has no choice but to cook the books because they don't want to be seen as unsafe," said Darrell Meachum, southwest regional vice president of the National Air Traffic Controllers Association.

Ms. Whiteman said she appreciated a call from Mr. Sturgell on Thursday thanking her for her sacrifices. She still wants the agency to retract a letter written to her congressman several years ago that characterized her as "some crazy broad who was out of control," she said.

Comment L15. Page 4 of 7

"I have been ostracized beyond belief," said Ms. Whiteman. "I have my position and title only. I'm not a part of the FAA."

Rep. Michael Burgess, R-Flower Mound, said he recalled the tone of the FAA's letter as somewhat "dismissive."

"It has taken a long time to get an answer," Mr. Burgess said of Ms. Whiteman's complaints. "But I'm grateful that she came forward and she brought the facts to light."

Comment L15. Page 5 of 7

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The New York Times
Wednesday, August 6, 2008
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ATTACHMENT "A3" 2-PAGES

F.A.A. Chief Admits Mistakes on Valujet

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The head of the Federal Aviation Administration conceded today that his agency had reacted too slowly to safety problems it had discovered at Valujet Airlines even before the crash on May 11 in the Florida Everglades that killed 110 people.

"We did learn some lessons," said David R. Hinson, Administrator of the F.A.A., during a daylong Congressional hearing on the aviation safety issues raised by the Valujet crash. "It is apparent now that the extraordinarily rapid growth of this airline created problems that should have been more clearly recognized and dealt with sooner and more aggressively."

The crash has given rise to numerous suspicions and questions about the airline and the effectiveness of the F.A.A., and few of them were left unspoken at the hearing today. They included why the F.A.A. did not ground Valujet sooner; what led to the resignation of the F.A.A.'s top safety professional, and whether the mission of the F.A.A. to promote and regulate aviation creates a conflict.

Like few accidents before it, the Valujet crash has become a kind of Rorschach test, affording the opportunity for many people involved in aviation safety to see something in the accident and its aftermath that reflected long-standing concerns.

And in many cases, the concerns expressed today had little to do with what caused the crash, which by all appearances occurred as a result of volatile oxygen generators mistakenly placed in the cargo hold of Valujet Flight 592, leading to a crippling fire. But that mistake was, in a broad sense, the result of a breakdown in policy and procedure between Valujet and a subcontractor. And internal F.A.A. documents show that the agency had long-standing concerns about the airline, including its oversight of its many subcontractors.

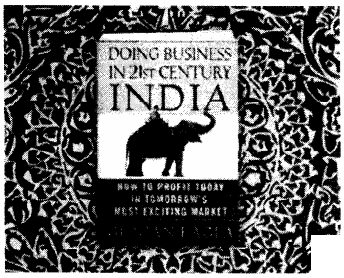
For this reason, the crash and its aftermath -- including the F.A.A. saying immediately after that Valujet was safe, only to change its mind last week by grounding the airline --- has weakened confidence in the F.A.A. and the airline industry, despite this country's strong record of flight safety.

The daylong hearing occasionally grew testy, with members of the House aviation subcommittee of the Committee on Transportation and Infrastructure receiving often technical or drawn-out answers to straightforward questions, such as why the F.A.A. did not shut down Valujet sooner given the F.A.A.'s concerns that date back to October 1994.

"I still don't understand," said Representative William O. Lipinski, Democrat of Illinois, after more than five hours of hearings. "It is my humble opinion that the evidence you had prior to the crash would have been sufficient to shut them down."

Mr. Hinson, along with the F.A.A.'s top safety professional, Anthony J. Broderick, associate administrator for regulation and certification, said that Valujet was considered

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to be in compliance with Federal aviation regulations, based on the information available at the time, even as F.A.A. inspectors found a growing number of safety-related problems with the airline before the crash.

But they said the crash prompted even greater scrutiny by the F.A.A., which turned up what Mr. Broderick said were "systemic," rather than isolated, problems.

But Mr. Hinson acknowledged that the answer may not lay to rest questions about why the F.A.A. initially vouched for Valujet, then later deemed the airline unsafe.

"It is a logic problem," he acknowledged.

Representative James L. Oberstar, Democrat of Minnesota, said that the F.A.A.'s explanation created the appearance that Valujet had been operating unsafely and that the F.A.A. did not know it. He said he was also concerned that certain F.A.A. internal memorandums about Valujet before the crash -- which he said would have caused him to "hit the roof" about the airline if had read them -- did not reach Mr. Broderick or Mr. Hinson until after the crash.

"That kind of thing is serious," he said.

Many other theories were raised during the hearing to explain the actions by the F.A.A., including whether political pressures played a role. But when Mr. Hinson explained that a meeting was held to brief White House officials on Monday, June 17, after the decision had been made to shut down Valujet, the issue was dropped.

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Comment L15. Page 7 of 7

Response to comment letter L15:

L15-001

The FAA has the responsibility, under 49 U.S.C. subtitle IX, ch. 701, to encourage, oversee, and coordinate private sector launches, reentries, and associated services and, only to the extent necessary, regulate those launches, reentries, and services to ensure compliance with international obligations of the U.S. and to protect the public health and safety, safety of property, and national security and foreign policy interests of the U.S. Further under 14 CFR part 420 for a launch site operator and 14 CFR part 417 for a launch operator, the licensee must cooperate with the FAA to observe their activities and monitor compliance of the terms and conditions of the license. For each licensed launch the FAA is present observing the launch operator's activities ensuring the safety of the uninvolved public. In addition the FAA conducts at least one annual inspection of the launch site to verify launch site compliance of regulations.

L15-002

NMSA would be required to comply with the requirements set forth in 14 CFR part 420, License to Operate a Launch Site, for both ground safety and flight safety, and any other applicable guidance or regulations from the FAA. Individual commercial launch vehicle operators would be required obtain a license or permit to conduct launches from Spaceport America. The application must specify the safety measures that would be applied to launches to minimize the occurrence of accidents and their impacts to the environment and safety. As part of the licensing process, the FAA determines the financial responsibilities of an operator, which includes a determination of a maximum probable loss and what type and amount of liability insurance is required per 14 CFR § 440, Financial Responsibility.

Farfel, Shaina

From:
Sent: Saturday, August 09, 2008 12:33 PM
To: Spaceport America EIS
Subject: SpaceportAmericaEIS@icfi.com

This email was sent through the Federal Aviation Administration's public website.
You have been contacted via an email link on the following page:
http://www.faa.gov/about/office_org/headquarters_offices/ast/licenses_permits/htm/sw_spaceport_eis/index.cfm

Message:

Dear Sirs,

Having grown up in Hot Springs (Truth or Consequences), while in grade school my father and I hiked sections of the Camino Real, not fully knowing what it was. As he was president of the Sierra County Mineral and Gem society in the early 50's we heard a lot of stories from the old timers about trails, mines, etc., and explored with enthusasem from about 1951 to 54. When CARTA was formed, I was a charter member, attending the dedication of the historical marker a mile West of Engle and hiking sections of the trail to the South that I had never before hiked. I certainly consider the preservation of this oldest major European trail to be of importance to future generations as well as a historic contact with Mexico for some of their tourist money to be brought back to the United States.

Though I know the closure of air space at White Sands to be a major component, and a logical one, for the location of the Spaceport, I am quite concerned that damage might be done to over 400 years of history in the process of development. I would hope that all discussion with respect to environmental impact consider the importance of preserving this trail, as original as possible, for both future generations in this country and for possible tourist utilization in the future. L17-001

Sincerely,

Theodore W. Cooley

1

Comment L17. Page 1 of 1.

Response to comment letter L17:

L17-001

The FAA has performed considerable research about the Trail, and conducted extensive consultations with Federal and state agencies and public organizations, including the El Camino Real de Tierra Adentro Trail Association (CARTA). This research and consultation was included in the analysis of potential impacts to El Camino Real and identification of potential mitigation measures to address those impacts. This analysis is found in Sections 3.5.4.6 and 4.5.

My name is George Jepson

I wish to comment on the impact of the proposed HVL, 10,000 foot long, 200 foot wide runway.

Please note from the outset that I am a strong supporter of the Spaceport and make the following comments to ensure its chances for an excellent safety record and for its financial success. Planning and design is always a compromise but runway alignment should be out of bounds.

There is no evidence in the Draft EIS, nor is there any reference to material outside the document, that site wind data was collected or used in locating the HVL runway. This is usually presented in the form of wind direction, speed and duration tables; and is generally summarized and presented in the form of a wind rose. Such wind data is thought to be essential to runway alignment, location and overall airport design. It is always presented in airport environmental impact statements, along with tables and graphics pertaining to expected noise levels. Without incorporating on-site wind data, into the airport design calculations, the proposed runway alignment and its location lacks the most basic technical justification. I call this to the attention of the FAA.

Each airport facility that I contacted was astonished that wind data had not been collected. It is likely that all the proposed Spaceport structures are located with regard to the alignment of, and therefore the location of, the HVL runway. If the location of this runway is critically misaligned, then safety issues arise and predictable scheduling of runway usage is compromised. Upon FAA review, should a different alignment be called for, noise level projections and impacts would have to be done over. Impact on the National Historic Trail would have to be revisited. And the layout of the Spaceport may have to be redesigned; the already compromised National Historic Trail not withstanding. L20-001

In checking out municipal and international airport runways in the region, I found that the major runways were aligned closer to 270 degrees from true north: Alamogordo at 210 deg. Carrizozo at 240 deg. Deming at 260 deg. Hatch at 290 deg. Las Cruces at 300 deg. Dona Ana at 280 degrees and T or C at 310 deg.

Comment L20. Page 1 of 5.

There must be a good reason that they all avoided the nearly 350 degree north-south major runway alignment, as is proposed for the Spaceport.

Why such a large discrepancy from regional experience and wisdom? The proposed runway is at a 40 degree to 80 degree variance with regional designs. While this probably won't bother the powerful, cargo aircraft and commuter jets, what will it do to the elegant, however well designed, White Knight?

L20-001

Pilots in the region are not concerned with normal north-south wind patterns. They are predictable and they behave themselves. The problem winds are those that burst out of the east and west. They would deliver violent and sudden crosswinds to the proposed runway alignment. I do not want to see the White Knight get sand-bagged in a 50 to 60 mph burst during the critical take-off period.

I strongly encourage the FAA to ask that a proper wind study be undertaken, and that the design layout of the runway and other Spaceport elements be modified, if and where necessary, before a license is granted.

Thank you for your patience and the opportunity to be heard.

Comment L20. Page 2 of 5.

2/ OF 4

To: The Federal Aviation Administration
Fairfax, Virginia

From George T. Jepson

Comment on the Spaceport America Draft Environmental Impact Statement; Specifically on the Horizontal Vehicle Launch Runway

Having reviewed Environmental Impact Statement(s) professionally, as an Urban and Regional Planner in the Northeast, I was curious as to what the wind data looked like in the subject Valley. This Valley has different wind conditions from that of the parallel but separate Valley to the east that contains the White Sands Missile Range and that of the parallel but separate Rio Grand Valley to the west. The three parallel valleys are separated by north-south running mountain ranges. Each valley has its own fluky crosswinds.

To my great dismay, **I found only a brief mention of wind.** Please see **Section 3.6.4.1 Climate and Meteorology, on page 3-52 thru 3-53. There is no mention of wind direction, speed or duration. It is impossible to argue for or against the proposed orientation of the Horizontal Launch Runway without wind data sufficient to construct a proper Wind Rose. The proposal could be "dead on" or "dead wrong".** L20-002

Spaceport America is to be located at a specific site. This site has a broad arroyo with both elevated land and flat land just to the west of the proposed complex. There is a mountain range to the east. These topographic features do influence wind speed and direction unique to this site. **We are constructing a runway here which must serve** (according to the EIS) **the take-off and landing of a wide variety of aircraft types. The orientation of the runway must be such that it provides the maximum level of safety possible. Reliable wind data is absolutely necessary to achieve this.** The only mention of a weather station is of one located on a ranch just north of the Spaceport.

Two criteria are given for the proposed orientation of the runway: To distance the complex from the National Historic Trail and; To keep the runway parallel to the 356KV Transmission Line. These criteria (and I respect them) appear to have wholly dictated the orientation of the runway. Are we subjecting the proposed runway to unnecessary exposure to unknown crosswinds? Unfortunately, we cannot know this without proper wind speed, direction and duration data. A Spaceport proposal for this site has been churning around for years and **no one thought to collect the crucial data on the wind?**

George T Jepson
8/6/08

Comment L20. Page 3 of 5.

3 of 4

Comment to be made at the Hearing

My comment pertains to the location of the
Horizontal Vehicle Launch Runway

Upon review of the Draft Environmental Impact Statement
I was dismayed at not finding wind data
Or references to same
Or the presentation of a Wind Rose
Both normally thought essential
To Runway alignment considerations

You can't tell me that the Runway alignment
Will be just fine because you don't have the
Data to back it up

You can't tell me that Missile Range
Wind data was used If you did
you would have least made reference to it

Runway alignment is a safety issue
And a logistical issue

The location of all other structures hinge
On the location of the Runway

Logistics and scheduling hinge on
Proper Runway alignment

George T Jepson
8/6/08

Comment L20. Page 4 of 5.

4/ of 4

Letter to the Editor
The Spaceport

On April 22 we will get a chance to vote Up or Down on the proposed Spaceport. It will come in the form of a vote to increase taxes by 25 cents for every hundred dollars we spend on non-essential items. For me that's two dollars a month. That's a cup of coffee and a muffin. Twenty-five percent of the tax will go back to our schools in the form of expanded math, science, communications and engineering classes; necessary if our students are to meet the demands of the good job opportunities that will be coming along. We are being asked to invest in our children's future and the future of our young families. We are being offered a chance to participate in commercial space travel and the jobs it will create. One area of frontier technology will be the development of more efficient engines and less polluting fuels. This will benefit all air and ground transportation systems.

Private enterprise will be paying a hefty user fee; eventually returning to us monies we have advanced. Building the Spaceport will be our chance to be in on this historic First: Commercial flights into space. It is going to happen somewhere, so it might as well happen here. And if great jobs are just down the road, our youngsters will be motivated to study hard for them. And they will have to study hard if they want a piece of the action.

If we bring this into reality it will change every one of us in profound and positive ways. It will change our schools and our ambitions, our jobs and our families and, most importantly, give us a strong sense of pride. By voting for the Spaceport it will give us added competitive rights. Our community will be "on board" from the start. In the beginning the journey will be rough and uneven but that is part of the adventure, part of what it is to be in on something big and bold. We don't want to pass this up.

340 words
George Jepson

George T Jepson
8/6/08

Comment L20. Page 5 of 5.

Response to comment letter L20:

L20-001

See response to L8-001.

L20-002

See response to L8-001.

0021

COMMENT FORM

Federal Aviation Administration
Comments on the
Spaceport America Draft Environmental Impact Statement

If you would like to receive a copy of the Final Environmental Impact Statement, please include your name and contact information.

Thank you for taking the time to provide us with your comments.

Name: JAMES G. HAYHOE

Would you like to be added to the Mailing List? Yes ☒ **No** ☐

If yes, you will receive a paper copy of the Executive Summary and a CD-Rom of the Final EIS.

Please provide comments on the Draft EIS by August 18, 2008. Comments should be as specific as possible and address the analysis of potential environmental impacts and the adequacy of the proposed action or merits of alternatives and the mitigation being considered. Reviewers should organize their participation so that it is meaningful and makes the agency aware of the viewer's interests and concerns using quotations and other specific references to the text of the Draft EIS and related documents.

I BELIEVE MORE ATTENTION SHOULD BE FOCUSED ON THE USE OF THE BNSF RAILROAD AND ITS RIGHT OF WAYS AND CROSSINGS. MORE USE OF EXISTING RIGHT OF WAYS WOULD MINIMIZE IMPACT ON THE ENVIRONMENT. PRIVATELY OWNED VEHICLES AND HAZARDOUS CARRIERS COULD BE MINIMIZED.

L21-001

Comment L21. Page 1 of 1.

Response to comment letter L21:

L21-001

Thank you for your comment.

COMMENT FORM

Federal Aviation Administration
Comments on the
Spaceport America Draft Environmental Impact Statement

If you would like to receive a copy of the Final Environmental Impact Statement, please include your name and contact information.

Thank you for taking the time to provide us with your comments.

Name: Jeffrey W. HANSON

Would you like to be added to the Mailing List? Yes ☒ **No** ☐

If yes, you will receive a paper copy of the Executive Summary and a ~~CD-Rom of the Final EIS~~. NO I WANT A HARD COPY - NO D.V.D.'S / INFORMATION

Please provide comments on the Draft EIS by August 18, 2008. Comments should be as specific as possible and address the analysis of potential environmental impacts and the adequacy of the proposed action or merits of alternatives and the mitigation being considered. Reviewers should organize their participation so that it is meaningful and makes the agency aware of the viewer's interests and concerns using quotations and other specific references to the text of the Draft EIS and related documents.

- I REQUEST A HARD COPY (BOUND, PRINTED ON PAPER) OF FEIS. I DO NOT WANT any d.v.d.'s / COPIES
- I REQUEST A HARD COPY OF THE ROD when / IF ISSUED
- I REQUEST A COPY OF THE TRANSCRIPTS from ALL THREE EIS MEETINGS
- I REQUEST A COPY OF ALL QUESTIONS, ANSWERS and COMMENTS regarding EIS PROCESS.

THESE QUESTIONS / COMMENTS PROVIDED TO THE PUBLIC RECORD

Comment L22. Page 1 of 1.

Response to comment letter L22:

L22-001

Printed copies of the Final EIS and the Record of Decision will be mailed to you when available. The transcripts from the six public meetings are included in the Final EIS, in Appendix N. All public comments and responses are included in Appendix N.

THE HOPI TRIBE

Benjamin H. Nuvamsa
CHAIRMAN

Todd Honyaoma, Sr.
VICE-CHAIRMAN

August 4, 2008

FAA Spaceport America EIS
c/o ICF International
9300 Lee Highway
Fairfax, Virginia 22031

Dear FAA,

This letter is in response to your correspondence dated June 25, 2008, with an enclosed Draft Environmental Impact Statement for the Spaceport America Commercial launch Site in Sierra County, New Mexico. Pursuant to Hopi Tribal Council H-94-70, the Hopi Tribe claims ancestral and cultural affiliation to prehistoric cultural groups in New Mexico, including the Archaic and Mogollon prehistoric cultural groups, and therefore we appreciate the Federal Aviation Administration (FAA)'s continuing solicitation of our input and your efforts to address our concerns. The Hopi Cultural Preservation Office supports identification and avoidance of prehistoric archaeological sites and Traditional Cultural Properties and we consider the archaeological sites of our ancestors to be Traditional Cultural Properties.

In response to FAA correspondences, in the enclosed letters dated February 24, 2006, April 2, 2007, and August 27, 2007, we requested a copy of the cultural resources survey of the area of potential effect. In a letter dated September 5, 2007, we reviewed the survey report, which identifies 41 prehistoric sites that are recommended as National Register eligible or are of undetermined eligibility. We noted the rare and numerous PaleoIndian and Archaic sites in the project area. We stated that based on the proposed Memorandum of Agreement, we have determined that this proposal will likely affect cultural resources significant to the Hopi Tribe, and requested continuing consultation and to be provided for review and comment with any draft archaeological testing or data recovery plans.

In the enclosed letter to the FAA dated June 9, 2009, we reviewed the enclosed *Cultural Resources Survey of 462 Acres Offsite Fiber Optic and Transmission Lines for Proposed Spaceport America, Sierra County, New Mexico* that identifies 18 prehistoric sites, 15 of which are National Register eligible and 2 of which are of undetermined eligibility. We stated we understood 11 eligible or sites of undetermined eligibility will be adversely affected by this proposal, and three others may be adversely affected, including 9 sites described as structural. We determined that this proposal will adversely affect cultural resources significant to the Hopi

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Comment L23. Page 1 of 8.

Tribe and therefore we requested continuing consultation, including to be provided with a copy of any draft treatment or data recovery plans for review and comment.

We have also received a copy of a letter from the New Mexico Department of Transportation to the FAA dated July 18, 2008, regarding establishing the setting of the area of potential effect.

We have now reviewed the *Draft Environmental Impact Statement for the Spaceport America Commercial Launch Site (DEIS).* We consider the adverse effects to cultural resources from the Proposed Action to be significant. Data recovery excavations of prehistoric archaeological sites does not mitigate the adverse effects to those sites as Traditional Cultural Properties. L23-001

Contrary to page 3-30 of the *DEIS* that states, "no comments were received from the tribes on that report," as stated above the Hopi Tribe commented on the onsite and off-site cultural resources survey reports in the enclosed letters dated September 5, 2007, and June 9, 2008. L23-002

The *DEIS* in Exhibit 3.5-2 on pages 3-31-35 identifies 45 prehistoric sites or components of sites that are National Register eligible or undetermined eligibility. Of these 45 sites, 14 are not located in on site impact areas. The *DEIS* in Exhibit 3.5-3 on pages 3-36-38 identifies 27 prehistoric sites or components of sites that are National Register eligible or undetermined eligibility. L23-003

Therefore, we have determined that this *DEIS* identifies 58 prehistoric National Register eligible sites and sites of undetermined eligibility that are significant to the Hopi Tribe that may be adversely affected by this proposal, including numerous Paleoindian and Archaic prehistoric sites. We do not concur with the statement on page 5-8 that "All adverse impacts from the Proposed Action and these future projects could be individually mitigated to a level that is not significant..." And therefore, from a cultural resources preservation perspective, we support the No Action Alternative in this *DEIS.* L23-004

If either of the action alternatives is selected and as many as 58 or more prehistoric National Register eligible sites and sites of undetermined eligibility that are significant to the Hopi Tribe will be adversely affected by this proposal, including numerous Paleoindian and Archaic prehistoric sites, we reiterate our request for continuing consultation and to be provided for review and comment with copies of any draft archaeological testing or data recovery plans.

Should you have any questions or need additional information, please contact Terry Morgart at the Hopi Cultural Preservation Office. Thank you again for your consideration.

Comment L23. Page 2 of 8.

Respectfully,

Leigh J. Kuwanwisiwma, Director
Hopi Cultural Preservation Office

Enclosures: Letters to FAA: February 24, 2006, April 2, 2007, August 27, 2007, September 5, 2007, June 9, 2008

xc: New Mexico State Historic Preservation Office
Stacey M. Zee, FAA, Office of the Associate Administrator for Commercial Space Transportation,
800 Independence Ave., SW, Suite 331, Washington, DC 20591
Richard L. Wessel, NMDOT, P.O. Box 1149, Santa Fe, NM 87504-1149

Comment L23. Page 3 of 8.

THE HOPI TRIBE

Benjamin H. Nuvamsa
CHAIRMAN

Todd Honyaoma, Sr.
VICE-CHAIRMAN

June 9, 2008

Stacey M. Zee, Environmental Specialist
Department of Transportation, Federal Aviation Administration
Office of the Associate Administrator for Commercial Space Transportation
800 Independence Ave., SW
Washington, DC 20591

Dear Ms. Zee,

Thank you for your correspondence dated May 30, 2008, with an enclosed *Cultural Resources Survey of 462 Acres Offsite Fiber Optic and Transmission Lines for Proposed Spaceport America, Sierra County, New Mexico,* by Zia Engineering and Environmental Consultants, Inc. Pursuant to Hopi Tribal Council H-94-70, the Hopi Tribe claims ancestral and cultural affiliation to prehistoric cultural groups in New Mexico, including the Archaic and Mogollon prehistoric cultural groups, and therefore we appreciate the Federal Aviation Administration (FAA)'s solicitation of our input and your efforts to address our concerns.

The Hopi Cultural Preservation Office supports identification and avoidance of prehistoric archaeological sites and Traditional Cultural Properties and we consider the archaeological sites of our ancestors to be Traditional Cultural Properties. We have reviewed the enclosed survey report that identifies 18 prehistoric sites, 15 of which are National Register eligible and 2 of which are of undetermined eligibility. We understand 11 eligible or sites of undetermined eligibility will be adversely affected by this proposal, and three others may be adversely effected, including 9 sites described as structural. We have also reviewed *Appendix E (Volume III): Cultural Resource Survey of 181 Acres of Well Water Field and Pipeline Corridor* that identifies three prehistoric sites, one of which is National Register eligible and will be avoided by project activities.

We will be unable to send a representative to the meeting and site visit on July 19, 2008. However, we have determined that this proposal will adversely effect cultural resources significant to the Hopi Tribe and therefore we request continuing consultation. Please provide us with a copy of any draft treatment or data recovery plans for review and comment.

Should you have any questions or need additional information, please contact Terry Morgart at the Hopi Cultural Preservation Office. Thank you again for your consideration.

Respectfully,

Leigh J. Kuwanwisiwma, Director
Hopi Cultural Preservation Office

xc: New Mexico State Historic Preservation Office

P.O. BOX 123 KYKOTSMOVI, AZ 86039 (928) 734-3000

Comment L23. Page 4 of 8.

THE HOPI TRIBE

Benjamin H. Nuvamsa
CHAIRMAN

Todd Honyaoma Sr.
VICE-CHAIRMAN

September 5, 2007

Stacey M. Zee, Associate Administrator
Federal Aviation Administration, Office of Commercial Space Transportation
800 Independence Ave., SW
Washington, DC 20591

Dear Ms. Zee,

Thank you for your correspondence dated August 31, 2007, with an enclosed cultural resources survey report, regarding the proposed Spaceport America near Upham, New Mexico. Because the Hopi Tribe claims ancestral and cultural affiliation to prehistoric cultural groups in New Mexico, and the Hopi Cultural Preservation Office supports the identification and avoidance of prehistoric archaeological sites and Traditional Cultural Properties, we appreciate the Federal Aviation Administration's continuing solicitation of our input and your efforts to address our concerns.

As the Hopi Cultural Preservation Office stated in our letter dated August 27, 2007, we will not be able to send a representative to the September 18th and 19th meeting in Truth or Consequences. However, we have reviewed the enclosed cultural resources survey report that identifies 41 prehistoric sites that are recommended as National Register eligible or of undetermined eligibility, including PaleoIndian, Archaic, and Mogollon sites. We note the rare and numerous PaleoIndian and Archaic sites in the project area.

We look forward to being provided with a copy of the determination of effect and hope that all identified and National Register eligible prehistoric sites can be avoided by project activities However, based on the agenda that identifies a proposed Memorandum of Agreement, we have determined that this proposal will likely adversely affect cultural resources significant to the Hopi Tribe.

Therefore, if any of the identified, eligible or undetermined prehistoric sites will be adversely affected by this proposal, we request further consultation and to be provided for review and comment with copies of any draft archaeological testing or data recovery plans.

If you have any questions or need additional information, please contact Terry Morgart at the Hopi Cultural Preservation Office. Thank you again for your consideration.

Respectfully,

Leigh J. Kuwanwisiwma, Director
Hopi Cultural Preservation Office

xc: New Mexico State Historic Preservation Office

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Comment L23. Page 5 of 8.

THE HOPI TRIBE

Benjamin H. Nuvamsa
CHAIRMAN

Todd Honyaoma Sr.
VICE-CHAIRMAN

August 27, 2007

Stacey M. Zee, Associate Administrator
Federal Aviation Administration, Office of Commercial Space Transportation
800 Independence Ave., SW
Washington, DC 20591

Dear Ms. Zee,

Thank you for your correspondence dated August 15, 2007, regarding the proposed Spaceport America near Upham, New Mexico. Because the Hopi Tribe claims ancestral and cultural affiliation to prehistoric cultural groups in New Mexico, and the Hopi Cultural Preservation Office supports the identification and avoidance of prehistoric archaeological sites and Traditional Cultural Properties, we appreciate the Federal Aviation Administration's continuing solicitation of our input and your efforts to address our concerns.

In our February 24, 2006, and April 2, 2007, responses to Federal Aviation Administration correspondences from Grace Smith on this proposal, the Hopi Cultural Preservation Office requested a copy of the cultural resources survey report of the project area of potential effect for review and comment.

We will not be able to send a representative to the September 18th and 19th meeting in Truth or Consequences. However, to assist us in determining if this proposal may affect cultural resources significant to the Hopi Tribe, we reiterate our request and look forward to being provided with a copy of the cultural resources survey report of the project area of potential effect for review and comment.

If you have any questions or need additional information, please contact Terry Morgart at the Hopi Cultural Preservation Office. Thank you again for your consideration.

Respectfully,

Leigh J. Kuwanwisiwma, Director
Hopi Cultural Preservation Office

xc: New Mexico State Historic Preservation Office

P. O. Box 123 — KYKOTSMOVI, AZ. — 86039 — (928) 734-3000

Comment L23. Page 6 of 8.

Benjamin H. Nuvamsa
CHAIRMAN

Todd Honyaoma, Sr.
VICE-CHAIRMAN

THE HOPI TRIBE

Hopi Cultural Preservation Office

April 2, 2007

Patricia G. Smith, Associate Administrator
Federal Aviation Administration, Office of Commercial Space Transportation
800 Independence Ave., SW
Washington, DC 20591

Dear Ms. Smith,

Thank you for your correspondence dated March 22, 2007, regarding the proposed Spaceport America near Upham, New Mexico. As you know from our February 24, 2006, response to your February 3, 2006, correspondence, the Hopi Tribe claims ancestral and cultural affiliation to prehistoric cultural groups in New Mexico, and therefore the Hopi Cultural Preservation Office appreciates the Federal Aviation Administration's continuing solicitation of our input and your efforts to address our concerns.

As you also know from our previous letter on this proposal, the Hopi Cultural Preservation Office supports the identification and avoidance of prehistoric archaeological sites and Traditional Cultural Properties. Therefore, to assist us in determining if this proposal may affect cultural resources significant to the Hopi Tribe, we reiterate our request to be provided with a copy of the cultural resources survey report of the project area of potential effect for review and comment.

If you have any questions or need additional information, please contact Terry Morgart at the Hopi Cultural Preservation Office. Thank you again for your consideration.

Respectfully,

Leigh Kuwanwisiwma, Director
Hopi Cultural Preservation Office

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Comment L23. Page 7 of 8.

THE HOPI TRIBE

Hopi Cultural Preservation Office

Ivan L. Sidney, Sr.
CHAIRMAN

Todd Honyaoma, Sr.
VICE-CHAIRMAN

February 24, 2006

Patricia Grace Smith, Associate Administrator for Commercial Space Transportation
Federal Aviation Administration, Office of Commercial Space Transportation
800 Independence Ave., SW
Washington, DC 20591

Dear Ms. Smith,

This letter is in response to your correspondence dated February 3, 2006, regarding the New Mexico Economic Development Department proposed Southwest Regional Spaceport in Upham, New Mexico. The Hopi Tribe claims cultural affiliation to prehistoric cultural groups in New Mexico, and therefore we appreciate your solicitation our input and your efforts to address our concerns.

The Hopi Cultural Preservation Office supports the identification and avoidance of prehistoric archaeological sites and Traditional Cultural Properties. Therefore we request additional consultation on this proposal. Please provide us with a copy of the cultural resources survey reopirt of the area of potential effect for review and comment.

For your information and future correspondences, Ivan Sidney is now Chairman of the Hopi Tribe. If you have any questions or need additional information, please contact Terry Morgart at the Hopi Cultural Preservation Office. Thank you for your consideration.

Respectfully,

Leigh Kuwanwisiwma, Director
Hopi Cultural Preservation Office

xc: New Mexico State Historic Preservation Office

Comment L23. Page 8 of 8.

Response to comment letter L23:

L23-001

This information has been added to Section 4.5.1.3.

L23-002

Sections 3.5.4.3 and 3.5.4.5 have been revised to include responses made by the Hopi Tribe.

L23-003

Thank you for your comment.

L23-004

The wording of the subject paragraph in Section 5.6 has been revised to indicate that some impacts, such as to Traditional Cultural Properties, would remain. The FAA will continue to consult with the Hopi Tribe in the Section 106 process during development of the mitigation plans.

August 14, 2008

Ms. Stacey Zee
FAA Environmental Specialist
Spaceport America EIS
9300 Lee Highway
Fairfax, VA 22031

Dear Ms. Zee:

My name is Lynda Sanchez and I have lived and worked in innumerable places including California, Virginia, the Southwest and Washington D. C. in my lifetime. I am a former President of the Lincoln County Historical Society, Vice Chairman of the Governor (Richardson) appointed Fort Stanton Development Commission and presently a member of the Bureau of Land Management Resource Advisory Council. Today, however, I am writing this letter as a very concerned private citizen.

I have lived in NM for more than 40 years and am an author/historian and retired educator. I care for all things "New Mexico" and recognize the fragile and special cultural landscape we have within our state's boundaries.

I am also very much aware of how "los politicos" like to play games with the public on very important issues; sometimes even to the point of mis-leading folks to believe that their economic situations will improve if such and such is done. **Wrong**! Over and over we have seen our environment degraded and urban sprawl create pollution, noise and make our beautiful night skies disappear. While I recognize that this Spaceport site is isolated in some senses, it will also leave a huge foot print upon a fragile and special Chihuahuan desert environment.

Therefore, before your organization makes a final decision with regard to issuing this license, please consider some of the following:

1. The very prestigious NATIONAL TRUST FOR HISTORIC PRESERVATION that has been around for decades was so concerned about the location of the Spaceport that they placed the historically and archaeologically significant Camino Real de Tierra Adentro on their 11 most endangered sites for 2007.
2. Because of the location of this facility, inclusion as a UNESCO World Heritage Site which alone would bring many tourists and therefore economic development of a different and less intrusive and invasive type to the surrounding communities is endangered. These kinds of tourists would not leave such a huge and or elitist foot print upon the landscape!
3. During these tough economic times when infrastructure throughout our state is in bad repair because of severe flooding, fires and just poor maintenance and not enough funding to repair bridges, highways, and schools that are falling apart, adding this burden of expense to an over extended budget is of major concern. Allowing others to dictate what NM needs so they can have their "space" tourism

L24-002

Comment L24. Page 1 of 2.

games and fun is just not morally right! There are plenty of other sites where this can be, or is being done. Adding huge runways, and not considering the damage done to wildlife, habitat, migration routes and precious water resources is not serving the benefit of the state's population, but rather a few.

4. Within the information itself one has too many nebulous descriptions and parsed wording cleverly written to fool the general reader. This needs to be seriously edited and enforcement and respect need to be major factors as you move to your important decision. Requirements must be vociferously enforced should you decide to allow this licensing procedure to move forward.
5. Preference by many would be a "No Action Alternative" and a do not issue license. In the event that this alternative is not seriously considered then major consultation with NPS, BLM and New Mexico's SHPO would be of great significance. And that is to say, not to give "lip service" to these agencies and their concerns, but to listen to these folks whose job it is to consider all of the above and to plan for the future generations, not just a few playboys!
6. Relocate the site further from the actual Camino Real.
7. Allow for No fly days or even segments such as weeks to allow for a "rest" from the noise and other impacts made by any kind of rocket launches.

I therefore urge the FAA to carefully consider the alternatives, the information provided and to review major potential environmental effects, many of which will have a negative focus when noise, visual resources, light emissions, historical, architectural, archaeological and cultural resources, air quality and water availability are sincerely considered. Construction impacts also need to be considered in the fragile ecological environment known as the Chihuahuan desert. It takes centuries to erase the effects of significant roads; runways etc and at this point in time one should ask **if this is really a necessary facility at all!**

Sincerely,

Lynda A. Sanchez
Author/historian/Educator

Comment L24. Page 2 of 2.

Response to comment letter L24:

L24-001

Thank you for your comment. The National Trust for Historic Preservation is a consulting party in the National Historic Preservation Act, Section 106 process, which was conducted by the FAA for the proposed project.

L24-002

Thank you for your comment. The EIS considers the potential impact to wildlife, habitat, and water from the proposed project in Sections 4.7 and 4.8.

L24-003

The FAA has consulted with the BLM, NPS, and NM State Historic Preservation Officer, as well as 14 additional consulting parties, for over two years in the analysis of the potential impact of the proposed project on historic properties, in accordance with Section 106 of the National Historic Preservation Act and 36 CFR Part 800.

L24-004

Thank you for your comment. Section 2.4.2 and Appendix C describe alternative site locations that were considered and eliminated from further detailed analysis.

L24-005

Thank you for your comment.

COMMENT FORM

Federal Aviation Administration
Comments on the
Spaceport America Draft Environmental Impact Statement

If you would like to receive a copy of the Final Environmental Impact Statement, please include your name and contact information.

Thank you for taking the time to provide us with your comments.

Name: _____

Address: _____

Street: _____

City: _____

State: _____ **Zip:** _____

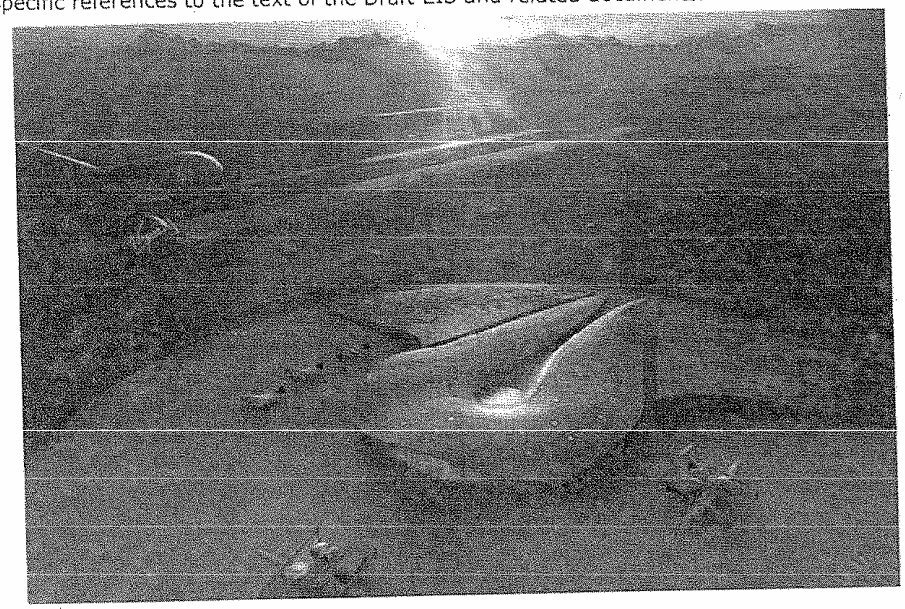
Organization: _____

E-mail Address: _____

Would you like to be added to the Mailing List? Yes ☐ **No** ☐

If yes, you will receive a paper copy of the Executive Summary and a CD-Rom of the Final EIS.

Please provide comments on the Draft EIS by August 18, 2008. Comments should be as specific as possible and address the analysis of potential environmental impacts and the adequacy of the proposed action or merits of alternatives and the mitigation being considered. Reviewers should organize their participation so that it is meaningful and makes the agency aware of the viewer's interests and concerns using quotations and other specific references to the text of the Draft EIS and related documents.



Comment L26. Page 1 of 2.

Otero Co. citizens won't benefit from this private venture 200 miles away so why should we be taxed?
A much better design should be considered.

What do ordinary folks know about the EIS + how it would involve HAFB, air space, FAA control?

L26-001

Comments may be submitted at a public meeting or via fax, e-mail, or mail (see address below) by August 18, 2008:

Fax: (703) 934-3951

E-mail: SpaceportAmericaEIS@icfi.com

(To mail, fold on dotted line and staple at bottom)

ALBUQUERQUE NM 871

11 AUG 2008 PM 3 L

Ms. Stacey M. Zee
FAA Environmental Specialist
Spaceport America EIS
c/o ICF International
9300 Lee Highway
Fairfax, VA 22031

22031+1200

Comment L26. Page 2 of 2.

Response to comment letter L26:

L26-001

Thank you for your comment.

L26-002

The FAA has followed FAA Order 1050.1E and the Council of Environmental Quality regulations (40 CFR Parts 1500-1508) in notifying the public about the EIS. The FAA's Notice of Intent for the Spaceport America (previously known as the Southwest Regional Spaceport) EIS was published in the Federal Register on January 24, 2006. Scoping meetings were held in Truth or Consequences, New Mexico on February 15, 2006, and in Las Cruces, New Mexico on February 16, 2006. The Notice of Availability for the Draft EIS was printed in the Federal Register on July 3, 2008. Public hearings were held to obtain public comment on August 5 (Alamogordo), August 6 (Truth or Consequences) and August 7 (Las Cruces), 2008. The Draft EIS was distributed to local libraries and notices were placed in local newspapers concerning the availability of the Draft EIS and the times and locations of the public hearings. The FAA also distributed this information to interested parties on the project mailing list.

Airspace is addressed in Appendix F.

Catherine López Kurland

August 13, 2008

Ms. Stacey M. Zee
FAA Environmental Specialist
Spaceport America EIS
c/o ICF International
9300 Lee Highway
Fairfax, VA 22031

Dear Ms. Zee:

As a resident of New Mexico, a member of CARTA, a preservationist and a citizen of Hispanic descent, I would like to voice my strong objection to the location of Spaceport America because it threatens to cause irreversible damage to the most pristine section of a highly significant cultural resource: El Camino Real de Tierra Adentro National Historic Trail. L27-001

I have walked along this section of the Camino in the Jornada del Muerto where the proposed spaceport is to be built. I experienced this place as the Spanish colonists did over four hundred years ago. I saw ruts and swales made by the wooden wheels of the ox-drawn carts. I could see, hear and feel what these first colonists, and others who followed their path for the next three hundred years, experienced as they trudged through the vast and unforgiving desert. It is a miracle that this historic artifact of our cultural landscape has survived unchanged.

El Camino Real is arguably the most significant link to the rich Hispanic history of the interior Southwest, and the proposed spaceport is sited on the most undisturbed section of it. If there is to be a spaceport, why must it be here? No amount of mitigation will restore the centuries-old sense of place once development begins. A spaceport in this section of El Camino Real is an affront to Hispanics throughout the Southwest. Once the site's integrity has been compromised, it cannot be restored.

Sincerely,

Catherine López Kurland

Catherine López Kurland

Comment L27. Page 1 of 1.

Response to comment letter L27:

L27-001

Thank you for your comment.

Individual Response to the FAA Draft EIS (18 August 2008)

REF. NO.	PAGE	FAA EIS TEXT (Emphasis Added)	RESPONSE/COMMENTS/RECOMMENDATIONS	
1.	ES-1	"*...or other* payloads..."	Will the design of each payload be made public? Will each be assessed for risk potential prior to launch?	L28-001
2.	ES-1	"*State-sponsored* studies have shown great potential benefits to the State..."	Please cite private or other non-State sponsored studies.	L28-002
3.	ES-2	Exhibit ES-1: "Location of the Proposed Spaceport America with Respect to Surrounding Areas"	Please add Camino Real de Tierra Adentro Historic Trail to this map, and to the proposed infrastructure maps.	L28-003
4.	ES-3	"... to ensure compliance with *international obligations* of the U.S. ..."	Note that a successful Spaceport may jeopardize Camino Real de Tierra Adentro's inclusion as a UNESCO World Heritage Site.	L28-004
5.	ES-4	"The construction of any future infrastructure beyond that discussed in this document *is not considered reasonably foreseeable* for purposes of this NEPA analysis."	Disagree that future construction is not foreseeable. NEPA analysis must accompany all future infrastructure construction, including those accompanying individual launch operator bases.	L28-005
6.	ES-4	"... would be under the administrative control of *individual Spaceport America launch operators*. These operators would be responsible for adhering to NMSA policies and procedures..."	NMSA policies and procedures must mitigate adverse environmental and cultural impacts caused by individual operators. NMSA should enforce written Tenant Covenants, a Draft of which should be open to public review and comment.	L28-006
7.	ES-5	"*No Action Alternative*: Under the No Action Alternative, the FAA would not issue a Launch Site Operator License to the NMSA."	In order to protect the most pristine section of the Camino Real de Tierra Adentro, I advocate a "No Action Alternative." Preference remains for the Spaceport to be located further away from the Camino Real. In the event that this Alternative is not selected, I will work with CARTA, the NMHPA, the FAA, and NMSA to eliminate or mitigate adverse impacts.	L28-007

Prepared by: Jean Fulton (Mesilla, NM) 1

Comment L28. Page 1 of 9.

Individual Response to the FAA Draft EIS (18 August 2008)

8.	ES-8	"Noise impacts are not expected to be significant."	Please cite the noise studies that were used to compile the Day-Night average sound level (DNL) results.	L28-008
9.	ES-9	"The visual impacts and light emissions resulting from construction and operation would be *less than significant*."	Disagree that visual impacts and light emissions will be "less than significant." Visual impacts will be intrusive.	L28-009
10.	ES-10	"The FAA *would* consult with the New Mexico State Historic Preservation offices (SHPO) prior to commencement of construction..."	For clarity and strength, the first sentence should read, "The FAA will consult with the NM SHPO..." Successful consultation with SHPO and implementation of agreed-to measures must be an explicit requirement prior to FAA licensing.	L28-010
11.	ES-10	"... pollutant and hazardous air pollutant (HAP) emissions from construction and operation would have a negligible impact on air quality and would not impair visibility along El Camino Real NHT."	Please cite the air quality studies that were conducted to achieve this conclusion, and/or cite the rationale behind the stated assumptions.	L28-011
12.	ES-11	"There could be small offsite water quantity (drawdown) effects in the immediate vicinity of the site..."	Please cite how projected long-term water use (quantity) was calculated for on-site and off-site use.	L28-012
13.	ES-14	"...it is likely that the cumulative visual impacts would be significant."	This statement appears to contradict "less than significant" visual effects finding on Page ES-9. Agree that cumulative adverse visual impacts will be significant.	L28-013
14.	ES-14	"However, the impacts would be mitigated to a level that is *not significant*."	This sentence contradicts the rest of the paragraph, and should be deleted. Impacts to physical historic properties and the surrounding cultural setting will be profound.	L28-014

Prepared by: Jean Fulton (Mesilla, NM) 2

Comment L28. Page 2 of 9.

Individual Response to the FAA Draft EIS (18 August 2008)

15.	ES-16	"Exhibit ES-3: Mitigation Measures and Other Measures..."	Although the proposed mitigation measures are excellent, including adherence to the NM Night Sky Protection Act, it is unclear how the mitigation measures will be mandated or enforced.	L28-015
16.	ES-17	"Developing a Cultural Resource Management Plan to ensure long-term protection of resources within the project boundaries."	The CRMP coverage area must be expanded to include areas immediately adjacent to Spaceport America boundaries, particularly to the west. Again it is not clear how the mitigation measures will be implemented and/or enforced. Language to this effect must be added as a necessary mitigation requirement.	L28-016
17.	ES-18	"Developing public activities in coordination with El Camino Real International Heritage Center and the New Mexico Museum of Space History."	Please include NM Farm and Ranch Heritage Museum (Las Cruces, NM) as a critical state-level public outreach partner.	L28-017
18.	2-1	"Exhibit 2-1: Location of the Proposed Spaceport America with Respect to Surrounding Areas"	Because El Camino Real de Tierra Adentro National Historic Trail is also a congressionally-designated area (equivalent in status to White Sands National Monument, etc.) it should be delineated on this map as well.	L28-018
19.	2-4	"Development of Spaceport America infrastructure would occur in two phases (see Exhibit 2-3)."	The Draft EIS states that the construction period of the Development Phase can begin 30 days after the Record of Decision (ROD) is filed. CARTA recommends that the construction period not be permitted to begin until 30 days after the Section 106 and Section 4(f) reviews are completed rather than the filing of the ROD.	L28-019
20.	EIS 16 & 2-4	Discussions regarding Memorandums of Agreement (MOA)s	Please outline a timeline for the development of MOAs, and discuss how they impact the ROD filing, the review process, the initiation of the Development Phase, and FAA licensing. What if MOA parties are unable to agree? Can construction and other activities proceed in the absence of MOAs? If so, why?	L28-020

Prepared by: Jean Fulton (Mesilla, NM) 3

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Individual Response to the FAA Draft EIS (18 August 2008)

21.	2-4 *et.al.*	"Short and long-term goals culminate in full support of X Prize Cup activities."	With the possible exception of the traffic analysis, the Draft EIS appears to substantially underestimate the impact of X Prize Cup activities at Spaceport America, despite the fact that NMSA projections estimate some 20,000 visitors daily for seven consecutive days. Assuming preparatory and clean-up activities could stretch the time of intense impact to 15 or 20 days.	L28-021
22.	2-4 *et.al.*	X Prize Cup	Are X Prize Cup transportation, security, vending, seating, cultural resources protection, and sanitation issues adequately addressed? Request that a fuller analysis of the potential impacts of the X Prize Cup activities be addressed in detail, including planning provisions in the event of a multiple casualty emergency.	L28-022
23.	2-6	"Exhibit 2-5: Proposed Spaceport America Infrastructure Components and Locations."	Please delineate the El Camino Real de Tierra Adentro footprint and viewshed on the infrastructure locator maps.	L28-023
24.	2-7	"...two additional concrete launch pads, a static rocket test stand, a vehicle assembly building, a permanent launch control facility, propellant storage facilities, and a general-purpose building."	Please depict primary and secondary roads, and projected Vertical Launch Facilities, on maps and artistic renditions (Appendix L) to show with more authenticity the proposed changes to the landscape.	L28-024
25.	2-7	"The airfield would include a 10,000 foot-long north-south runway, with associated taxiway and tarmac areas. Buildings and facilities would be constructed in a "campus" setting ... a terminal and hangar facility (THF), an aircraft rescue and fire-fighting facility (ARFF), and attached grounds maintenance facility."	Please depict the Horizontal Launch Area facilities, including the runway, taxiway, tarmac area, and associated buildings on maps and artistic renditions to accurately show proposed changes to the landscape. Please also add wastewater treatment plant, fuel storage, security fencing, cement batch plant, centrifuge, water immersion tank, and other referenced buildings to the existing artistic renditions (Appendix L). Are we to understand that the main runway doubles as an airstrip for small passenger jets and equipment deliveries, and that no additional landing strips will be necessary in the future?	L28-025

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Individual Response to the FAA Draft EIS (18 August 2008)

26.	2-10	"Lighting would be minimal at the airfield due to its use *almost exclusively* during the day."	Request that the FAA license for daylight launches only (one hour after sunrise to one hour before sunset) in deference to the NM Night Sky Protection Act.	L28-026
27.	2-19	"County Road A039, which provides access to Spaceport America, would serve as the entrance road. This road would be expanded to two lanes with paved shoulders during Phase 1 to provide an all-weather road."	As the single point of entry, will this road need to be widened in the future? If so, will this trigger future archaeological clearance activities?	L28-027
28.	3-7	"Current recreational use of the El Camino Real NHT in the vicinity of the proposed spaceport is probably light."	Please emphasize that BLM and NPS personnel are in the process of implementing the 2004 Comprehensive Management Plan (CMP) including archaeological clearance of selected areas, interpretive signage, etc. The CMP emphasizes a high-quality recreation experience, without intrusions, that allows visitors to vicariously share historic trail use experience.	L28-028
29.	3-8	"... considering proposals to prepare a formal National Register of Historic Places (NRHP) Multiple Property Documentation Form" on behalf of El Camino Real.	Please note that the Spaceport Authority has also made a commitment to assist with nominating El Camino Real de Tierra Adentro as a World Heritage Site.	L28-029
30.	3-15	"FAA Order 1050.1E states that special consideration needs to be given to the evaluation of the significance of noise impacts on noise-sensitive areas, including wildlife refuges."	El Camino Real de Tierra Adentro National Historic Trail should be included in the Class I wildlife refuge areas noted in the Draft EIS, and must be accorded special consideration as such. Currently, noise emanates from natural sources (i.e., wind, insects, bird calls, etc.). Visitors encounter few intrusive sounds, and air quality is unspoiled.	L28-030
31.	3-17	"No Federal laws specifically address visual and light impacts."	Even so, FAA licensing should dictate that NMSA and its tenants must adhere to the International Dark-Sky Association guidelines and the NM Night Sky Act to preserve the pristine Jornada del Muerto night sky.	L28-031

Prepared by: Jean Fulton (Mesilla, NM) 5

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Individual Response to the FAA Draft EIS (18 August 2008)

32.	3-39	"...to link Mexico City (the capital of New Spain) with *San Juan Pueblo*..."	San Juan Pueblo is now known as *Ohkay Owingeh* [verify] Pueblo.	L28-032
33.	3-44	"...appreciate what it was like for travelers going through Jornada del Muerto. For these reasons, *the setting* is considered an important historic feature of El Camino Real."	The Final EIS should mention the National Trust for Historic Preservation "11 Most Endangered Places" list (2007) and cite the reasons for El Camino Real de Tierra Adentro's inclusion on the list.	L28-033
34.	4-8	"... Anticipated impacts on potential Section 4(f) lands would be localized and temporary."	Disagree. At least ten Section 4 (f) resources associated with El Camino Real de Tierra Adentro National Historic Trail, and the Trail corridor itself, will be substantially, irrevocably, and adversely impacted by Spaceport activities despite the proposed mitigation measures.	L28-034
35.	4-20	"Civil Flight Operations: All X-Racers... would use the *Rocket Racing "race course" track* located southwest of the runaway..."	Is "Rocket Racing" an operation that is regulated or licensed by the FAA? What is the physical footprint of the race track? Access? Fencing? Seating? Restrooms? Why only scant mention?	L28-035
36.	4-26	"Exhibit 4.3-11: [Decibel] Contours Resulting from X Prize Cup Airspace Operations..."	The findings depicted in this chart, and the accompanying text, contradict NMSA assertions of low or insignificant auditory impact during daily operations and during the X Prize Cup event.	L28-036
37.	4-31	"Examples of project changes and commitments pertaining to visual resources, and in particular to the visual resources of the NHT and the Aleman Draw Historic District, include..."	Please add: (1) minimal and discreet fencing, (2) night launches, (3) publishing of all data recovery and research findings (archaeological, historical, scientific, and technical). Also please (4) create four to six two-week periods annually of "No Spaceport Activities" or "Quiet Days" to allow heritage tourists and nature enthusiasts an opportunity to experience the remote setting and wildlife without modern auditory or visual intrusions.	L28-037

Individual Response to the FAA Draft EIS (18 August 2008)

38.	4-47	"Indirect physical disturbance of historic properties could occur from changed erosion patterns, inadvertent impacts caused by Spaceport America workers or tenant organizations, and vandalism or illegal artifact collecting by workers or visitors."	These circumstances highlight again the need for SMSA-Tenant Covenants, and vigilant on-site resource protection during and between Spaceport activities; particularly during the X Cup Prize events.	L28-038
39.	4-47 & 48	"The impacts would be permanent, and, without mitigation, could accumulate over time to be significant."	Rather than using language throughout the Draft EIS suggesting that mitigation measures "could" be implemented, the FAA should *require* NMSA and their tenants to implement and comply with each mitigation measure. It is not enough to suggest or even recommend mitigation. Request that mitigation, including Tenant Covenants, be mandated as part of the FAA licensing process.	L28-039
40.	4-62	"All *non-amateur* commercial launches at the proposed Spaceport America would be licensed or permitted by the FAA."	Why are amateur launches not subjected to FAA licensing or permitting? Question: If one "non-amateur" uses the X-Racer racing track, for example, does that circumstance trigger FAA licensing or permitting?	L28-040
41.	4-63	"If wind conditions were such that the ground cloud from an accident might reach Spaceport America airfield or El Camino Real NHT, the launch *may* have to be rescheduled."	Safety precautions to contain the threat of toxic clouds should specify those wind conditions that would automatically scrub launches.	L28-041
42.	4-64	"To minimize the risk of accidents, Spaceport America will fully comply with the safety requirements set forth in 14 CFR Parts 415, 417, 420, 431, and 435, and any other applicable FAA regulations or guidance."	FAA safety standards must be a part of contractual obligations between NMSA and all tenants, equipment operators, transportation providers, vendors, etc. Public service announcements should be provided to ensure visitor safety; to educate how to respond in the event of an emergency; and to minimize vandalism and pot-hunting (looting of cultural resources).	L28-042

Prepared by: Jean Fulton (Mesilla, NM) 7

Comment L28. Page 7 of 9

Individual Response to the FAA Draft EIS (18 August 2008)

43.	4-65 & 66	"The first [construction] phase would require the withdrawal of approximately 88.4 acre-feet (76,800 gallons per working day) of water over a 1.5 year period. The second phase would require the withdrawal of approximately 10.9 acre-feet of water (14,250 gallons per working day) over a one year period."	These statistics and accompanying text and charts appear to contradict assertions that ground water withdrawal from the Jornada del Muerto will be inconsequential. Please define "per working day." Additional impacts to ground water levels (once construction activities have been completed, and launch operations begin) do not appear to be adequately assessed. Is further research and documentation pending? What about restroom facilities? What are the projected ground and space vehicle maintenance/cleaning needs? Will tenants be obligated to maintain a conservative level of water consumption?	L28-043
44.	4-104	"Although the Proposed Action would result in beneficial economic impacts to the region by supporting and facilitating limited growth, it would not induce growth."	This contradicts NMSA assertions to the contrary. Secondary development and growth (on private land, or Federal permitting, for example) are not adequately assessed or projected.	L28-044
45.	5-8	"Development of visitor facilities along El Camino Real NHT would result in increased visitor use and access. This could result in increased vandalism, inadvertent damage, or illegal artifact collecting along this historic property and to other historic properties nearby."	Disagree. Several organizations, including CARTA, are working with NPS and BLM to implement "site hardening" measures (artifact identification and surface collection/archiving as necessary). They also operate as successful Site Steward program that involves training. Development of visitor facilities will heighten public awareness, appreciation, and site protection.	L28-045
46.	5-8	"All adverse impacts from the Proposed Action and these future projects could be individually mitigated to a level that is not significant through compliance with the Section 106 process."	Disagree. Cumulative impacts to historic resources and to the Jornada del Muerto heritage and natural tourism experience will be significant and irrevocable.	L28-046

Prepared by: Jean Fulton (Mesilla, NM) 8

Comment L28. Page 8 of 9

Individual Response to the FAA Draft EIS (18 August 2008)

47.	6-2	"The following measures to avoid, minimize, or mitigate adverse effects *could* be considered and included in the MOA..."	Please change "could" to "should," and add additional suggestions to this list of mitigation measures, including the establishment of "No Spaceport Activities" or "Quiet" days.	L28-047
48.	8-3	"MariaSantiago"	Should read "MarkSantiago."	L28-048
49.	B-25	"The Federal Register Notice makes reference to "contingency landings" that may occur on BLM land. It is not clear on what this means or what it might entail. It definitely needs to be elaborated on in the EIS."	Agree with the Letter from Tim Sanders (BLM) that fencing and "contingency landings" need to be discussed with more detail and clarity in the Final EIS. Also request assurances from the FAA and NMSA that public access to the Yost Escarpment and other points along the County road near Upham will remain open (no locked gates).	L28-049

Thank you very much for this opportunity to respond to the FAA's Draft EIS regarding the proposed Spaceport near Upham, NM. I am not representing CARTA with this submission. CARTA's official stance has been delivered under separate cover. My views do not necessarily reflect those of Cornerstones Community Partnerships. Please know that I am responding as a public historian, a historic preservationist, and as a concerned Mesilla, NM resident. Thank you again.

Jean Fulton, M.A.
Secretary, El Camino Real de Tierra Adentro Trail Association (CARTA)
Preservation Programs Coordinator, Cornerstones Community Partnerships (http://www.cstones.org)

Comment L28. Page 9 of 9

Response to comment letter L28:

L28-001

For licensed launches, the FAA will evaluate the operation of each individual launch vehicle operator, including safety, risk, and indemnification. Under 14 CFR part 415 Subpart D Payload Review and Determination, the FAA is required to review a payload proposed for licensed launch to determine whether its launch would jeopardize public health and safety, safety of property, U.S. national security or foreign policy interests, or international obligations of the U.S. The design of the payload may or may not be publicly available, depending on whether or not the information is proprietary.

L28-002

The FAA is unaware of additional private or non-state sponsored studies regarding the economic benefits of the proposed Spaceport America to New Mexico.

L28-003

The El Camino Real route has been added to the infrastructure maps in Chapter 2.

L28-004

Thank you for your comment.

L28-005

In Section 2.1.2 page 2-4, the Draft EIS states that "Any proposed future infrastructure dissimilar to, or beyond the scope of, that included in this analysis would be analyzed in subsequent NEPA analyses, as appropriate."

L28-006

Thank you for your comment.

L28-007

Thank you for your comment.

L28-008

The noise analyses and references used are provided in Section 4.3.

L28-009

Please see the response for L29-006.

L28-010

Where a proposed action is being considered for implementation, the FAA and many other Federal agencies use "would" and not "will" to make it clear that an agency decision regarding the action has not been made at the time of the writing.

L28-011

The air analyses and references used are provided in Section 4.6.

L28-012

The water analysis and references used are provided in Section 4.7.

L28-013

This analysis is addressing visual resources or scenic attributes, not historic properties. The table in page ES-9 presents the impacts of the proposed action. The text on page ES-14 is describing the cumulative impacts of the proposed action when added to reasonably foreseeable future actions. The statement that starts this paragraph reiterates that "The visual impacts and light emissions resulting from construction and operation of Spaceport America would not be significant for the project area."

L28-014

The sentence has been changed to explain that some of the impacts could be mitigated.

L28-015

In accordance with FAA Regulations 1050.1E, Change 1, FAA considers mitigation measures for those resource areas where it has been determined in the NEPA document that significant impacts would occur. For this NEPA analysis, the only resource area with significant impacts is Historic, Architectural, Archaeological, and Cultural Resources. FAA has developed a Programmatic Agreement to address mitigation for possible impacts to this resource. For the other resource areas, where there are no significant impacts, the measures listed are conceptual, for consideration and possible implementation by NMSA or other agency.

L28-016

Resource investigations have not been finalized and details of the CRMP have yet to be determined; however, the boundaries of the management plan could not extend beyond the facility property.

L28-017

Thank you for the information. The Farm and Ranch Museum has been added here and in Section 4.5.

L28-018

Because of the scale and the amount of information contained on this map, the El Camino Real route will not be added. It has been added to the infrastructure maps contained in the rest of Chapter 2.

L28-019

The FAA has developed a Programmatic Agreement pursuant to Section 106 and in consultation with the New Mexico SHPO and consulting parties, which is attached as Appendix P. Per Section 106 of the National Historic Preservation Act, an agreement to resolve adverse effects must be signed prior to issuing the Record of Decision. The FAA is responsible for ensuring that the undertaking is carried out in accordance with the Programmatic Agreement.

L28-020

Please see response for L28-019. 36 CFR Part 800 outlines the process for development of the Programmatic Agreement.

L28-021

Thank you for your comment.

L28-022

The X Prize Cup event is addressed in all of the resource analyses with the best available information.

L28-023

The location of El Camino Real has been added to the infrastructure maps. The viewshed is not added. Viewshed impacts to El Camino Real are addressed in Section 4.5.

L28-024

Infrastructure elements with known locations and details have been depicted. Facilities that have not been specifically designed or located would be in the launch development areas.

L28-025

Infrastructure elements with known locations and details have been depicted. Facilities that have not been specifically designed or located would be in the launch development areas.

The proposed action includes just the 10,000 foot runway, which would be used for landing planes associated with Spaceport America operations.

L28-026

Thank you for your comment.

L28-027

The road, as described, is what is planned for the five-year term of the license. If NMSA determines a need for expanded facilities beyond that described in this EIS within the five-year license term, then FAA would review the plans and determine the need for additional Section 106 or NEPA compliance. Also, Spaceport America would be located on State Trust Lands, and would be subject to compliance with the NM Prehistoric and Historic Preservation Act.

L28-028

The affected environment describes the current condition of the various resource areas.

L28-029

Thank you for your comment.

L28-030

El Camino Real is not a national park, wilderness area, or wildlife refuge, thus is not included in the noise analysis. The potential for noise impacts to El Camino Real is addressed in Section 4.5.

L28-031

The Guidelines and the Act are both discussed in Sections 3.4 and 4.4. The bulleted list at the beginning of Section 4.4 shows that NMSA has already committed to the Guidelines and Act for the planned security and safety lighting.

L28-032

Thank you for this information. It has been added to the text.

L28-033

Thank you for your comment.

L28-034

Thank you for your comment.

L28-035

Rocket Racing is regulated by the FAA. The Rocket Racing "race course" is not a physical "track" on the ground within the facility, but instead refers to the flight path, or "course," that the rockets would use.

L28-036

Thank you for your comment.

L28-037

The items listed are those things that NMSA has already done or committed to do.

L28-038

Thank you for your comment.

L28-039

Thank you for your comment.

L28-040

The Government regulates only to the extent necessary to protect public safety and property. The FAA has determined that amateur rocket activities as defined under 14 CFR part 401.5 are not subject to the FAA licensing or permitting process because they are not expected to pose a risk to public health and safety, or the environment. Launches that exceed the parameters defined in 14 CFR part 401.5 would be subject to the FAA licensing or permitting process.

L28-041

Thank you for your comment.

L28-042

Thank you for your comment.

L28-043

Analysis of ground water impacts from withdrawal during construction and operation phases is based on water consumption data that include all uses during those phases.

L28-044

The FAA considers the analysis of secondary or induced impacts to be valid, as it conforms to requirements per FAA Order 1050.1E, Change 1.

L28-045

The FAA considers the analysis of cumulative impacts to cultural resources to be valid, as it conforms to requirements per FAA Order 1050.1E, Change 1.

L28-046

The sentence has been changed to read "Some of the adverse impacts from the Proposed Action and these future projects could be individually mitigated to a level that is not significant through compliance with the Section 106 process."

L28-047

The bulleted list presents some ideas that could be considered during development of the data recovery and mitigation plans under the Section 106 process. It is not meant to be an exhaustive list.

L28-048

Thank you for the information. The change has been made to the EIS text and to our mailing list.

L28-049

By law, NMSA cannot restrict access to public (BLM) lands. NMSA is working with BLM to develop recovery procedures for cases when launch vehicles or payloads inadvertently land on BLM land.

CARTA
EL CAMINO REAL DE TIERRA ADENTRO
TRAIL ASSOCIATION
P. O. Box 15162, Las Cruces NM 88004 USA

August 15, 2008

Ms. Stacey Zee
FAA Spaceport America EIS
c/o ICF International
9300 Lee Highway
Fairfax, VA 22031

Dear Stacey:

Thank you for the opportunity to comment on the Spaceport America Environmental Impact Statement (EIS). We appreciate Spaceport America and the Federal Aviation Administration for allowing CARTA to participate in the many planning sessions for Spaceport America. Some of our earlier concerns were addressed by Spaceport America staff and consultants. Particularly those of the Camino Real de Tierra Adentro viewshed from Yost Draw

The long term direct and indirect impacts of Spaceport America will be considerable to the Camino Real and the other cultural resources of the area. While they can mitigate the resources within the construction areas, those outside these areas will certainly be impacted as the Spaceport grows through the years. This future growth will also further impact the Camino Real, noise levels, scenic viewshed and the night time sky. L29-001

While it always has been our contention for Spaceport America to be relocated further east and south of its proposed location, this would have involved a land swap with the Bureau of Land Management. This measure would have moved the Spaceport further from direct and indirect impacts to the Camino Real and other cultural resources in the area, however this has been ruled out by this Environmental Impact Statement. We are still committed to work with the FAA and the New Mexico Space Authority to help identify, plan and implement these measures, including those comments and recommendations outlined in CARTA's attachment of this cover letter. L29-002

The accompanying attachment along with this cover letter constitutes our official response to the Spaceport America Environmental Impact Statement.

Patrick Lucero Beckett
President CARTA

Comment L29. Page 1 of 10.

El Camino Real de Tierra Adentro Trail Association (CARTA)
Response to the FAA Draft EIS (18 August 2008)

REF. NO.	PAGE	FAA EIS TEXT (Emphasis Added)	CARTA RESPONSE, COMMENTS, AND RECOMMENDATIONS	
1	ES-2, et al.	Exhibit ES-1: "Location of the Proposed Spaceport America with Respect to Surrounding Areas"	Please add Camino Real de Tierra Adentro Historic Trail to this map and to the proposed infrastructure maps.	L29-003
2	ES-4	"... would be under the administrative control of *individual Spaceport America launch operators*. These operators would be responsible for adhering to NMSA policies and procedures..."	NMSA policies and procedures must mitigate adverse environmental and cultural impacts caused by individual operators. Therefore **CARTA recommends that NMSA include written covenants in all tenant agreements regarding protections and mitigations and that NMSA should vigorously enforce those covenants**. Whenever possible, those agreements should be open to public review and comment prior to adoption.	L29-004
3	ES-5	Description of Alternatives and No Action Alternative	In the event that anything other than the No Action Alternative is the chosen course of action, **CARTA strongly recommends the implementation of all efforts possible to eliminate or mitigate adverse impacts identified in this document.** We are committed to working with the FAA and NMSA to help identify, plan, and implement these measures, including those outlined in these comments and recommendations.	L29-005
4	ES-9 & ES-14	"The visual impacts and light emissions resulting from construction and operation would be *less than significant*." "... it is likely that the cumulative visual impacts would be significant." "However, the impacts would be mitigated to a level that is *not significant*."	The statements in these sections appear to be in conflict, or in the last two examples provided possibly contradictory. CARTA disagrees that visual impacts and light emissions will be "less than significant." Visual impacts will be intrusive, cumulative, and significant. We also question whether impacts can be mitigated to a level that is "not significant." Physical impacts to historic properties and cumulative impacts (particularly in the long term) to the cultural setting will be profound. **CARTA recommends that these statements in the Executive Summary be re-evaluated for their accuracy and consistency.**	L29-006

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Comment L29. Page 2 of 10.

El Camino Real de Tierra Adentro Trail Association (CARTA)
Response to the FAA Draft EIS (18 August 2008)

5	ES-10, 6-2, et al.	"The FAA *would* consult with the New Mexico State Historic Preservation offices (SHPO) prior to commencement of construction..."	Throughout the Draft EIS, the text utilizes conditional verbs like "would" or "could" in reference to mitigation identification processes. **CARTA recommends that stronger verbs like "will" or "should" are needed to make clear that such actions should be mandatory.**	L29-007
		"The following measures to avoid, minimize, or mitigate adverse effects *could* be considered and included in the MOA..."	In the first example, the sentence should read, "The FAA will consult with the NM SHPO..." In the second example, the phrase should be changed to read "adverse effects should be considered and included".	L29-008
			In addition, **CARTA believes that consultation with SHPO and implementation of agreed-to measures must be an explicit requirement prior to or as a condition of FAA licensing.**	L29-009
6	ES-16	Exhibit ES-3: Mitigation Measures and Other Measures	Although the proposed mitigation measures are excellent, including adherence to the N.M. Night Sky Protection Act, it is unclear how the mitigation measures will be mandated or enforced.	L29-010
7	ES-17	"Developing a Cultural Resource Management Plan to ensure long-term protection of resources within the project boundaries."	**We believe the CRMP coverage area must be expanded to include areas immediately adjacent to the Spaceport America boundaries, particularly to the west along the Camino Real NHT.** It is unclear how any mitigation measures would be implemented and/or enforced. **CARTA contends this should be included as a necessary requirement in the mitigation process.**	L29-011
8	ES-18 4-49 6-2	"Developing public activities in coordination with El Camino Real International Heritage Center and the New Mexico Museum of Space History."	The text includes the State's institutions which interpret the Camino Real and space activities, but fails to include the one which interprets ranching and rural life as a potential partner. **CARTA recommends adding the New Mexico Farm & Ranch Heritage Museum** (in Las Cruces) **in all mentions of public activities and educational programming with state cultural organizations.**	L29-012

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Comment L29. Page 3 of 10.

El Camino Real de Tierra Adentro Trail Association (CARTA)
Response to the FAA Draft EIS (18 August 2008)

9	2-1	"Exhibit 2-1: Location of the Proposed Spaceport America with Respect to Surrounding Areas"	Because El Camino Real de Tierra Adentro National Historic Trail is also a congressionally-designated area (equivalent in status to White Sands National Monument, etc.) it should be delineated on this map as well.	L29-013
10	2-4, et al. (including ES-16)	"Development of Spaceport America infrastructure would occur in two phases (see Exhibit 2-3)."	The Draft EIS states that the construction period of the Development Phase can begin 30 days after the Record of Decision (ROD) is filed. However, the completion of all Section 106 and 4(f) reviews and the signing of MOAs are very critical.	L29-014
		and Discussions regarding Memorandums of Agreement (MOAs).	This document does not discuss the timeline for any of those activities, particularly in relation to the ROD filing or the issuance of an FAA license. We are aware that Section 106 reviews are underway during the comment period. The review findings and their implementation are critically important parts of the mitigation process.	
			Since it is not discussed, we must ask "What happens if all necessary parties fail to agree on an MOA?" Could construction and other activities proceed in the absence of MOAs? If so, why?	L29-015
			CARTA recommends that the EIS be rewritten to indicate that the construction period will not begin until 30 days after all Section 106 and Section 4(f) reviews are complete, all required MOAs are signed, or the filing of the ROD, whichever comes later.	
11	2-4, et al.	Discussions regarding X Prize Cup, including statements such as "Short and long-term goals culminate in full support of X Prize Cup activities."	Are X Prize Cup transportation, security, vending, seating, cultural resources protection, and sanitation issues adequately addressed? With the exception of the traffic analysis, the Draft EIS appears to substantially underestimate the impact of X Prize Cup activities at Spaceport America, despite the fact that NMSA projections estimate some 20,000 visitors daily for seven consecutive days. It is reasonable to assume that preparatory	L29-016

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Comment L29. Page 4 of 10.

El Camino Real de Tierra Adentro Trail Association (CARTA)
Response to the FAA Draft EIS (18 August 2008)

11 (cont.)			and clean-up activities could stretch the time of intense impact to 15 or 20 days. **CARTA requests that a fuller analysis of the impacts of the X Prize Cup activities be assessed and addressed in greater detail**. This would include outlining provisions for responses to "contingency landings" (see B-25) and multiple casualty emergencies. In the case of the latter, CARTA foresees that emergency responders might respond to a passenger crash (from either Spaceport launches, civilian flight operations, or "rocket racing") outside the Spaceport America boundaries in manners that would cause substantial and irreversible negative impacts to historic and cultural resources.	L29-016
			Provisions such as those outlined for crashes after tests on the White Sands Missile Range need to be developed and required as part of this process. **We suggest that this matter can be reasonably foreseen and rises to the level of being included in the EIS.**	L29-017
			Further, we suggest that safety regulations (such as those discussed on 4-63) be implemented that would require postponement or rescheduling of launches when projected flight paths or threat of toxic clouds (either directly or by wind conditions) would pass over the Camino Real NHT.	L29-018
12	2-6	Exhibit 2-5: Proposed Spaceport America Infrastructure Components and Locations.	Please delineate the El Camino Real de Tierra Adentro footprint and viewshed on the infrastructure locator maps.	L29-019
13	2-7	"... two additional concrete launch pads, a static rocket test stand, a vehicle assembly building, a permanent launch control facility, propellant storage facilities, and a general-purpose building."	Please depict elements like those described in these examples and projected Vertical Launch Facilities on maps and artistic renditions (such as in Appendix L) to show the proposed changes to the landscape with more accuracy.	L29-020

Comment L29. Page 5 of 10.

El Camino Real de Tierra Adentro Trail Association (CARTA)
Response to the FAA Draft EIS (18 August 2008)

13 (cont.)		"The airfield would include a 10,000 foot-long north-south runway, with associated taxiway and tarmac areas. Buildings and facilities would be constructed in a "campus" setting ... a terminal and hangar facility (THF), an aircraft rescue and fire-fighting facility (ARFF), and attached grounds maintenance facility."	*See comment on previous page.*	
14	2-7	"The airfield would include a 10,000 foot-long north-south runway, with associated taxiway and tarmac areas."	Do we correctly interpret and understand from the Draft EIS that the main runway doubles as an airstrip for small passenger jets and equipment deliveries, and that no additional landing strips will be necessary in the future?	L29-021
15	2-19	"County Road A039, which provides access to Spaceport America, would serve as the entrance road. This road would be expanded to two lanes with paved shoulders during Phase 1 to provide an all-weather road."	As the single point of entry, will this road need to be widened in the future? If so, will this trigger future archaeological clearance activities? This matter is of major concern because of the entry road's direct impact to the Camino Real NHT.	L29-022
16	3-7	"Current recreational use of the El Camino Real NHT in the vicinity of the proposed spaceport is probably light."	CARTA requests that greater emphasis be given in the narrative that NHT staff (with assistance from CARTA) is implementing the 2004 Camino Real de Tierra Adentro NHT Comprehensive Management Plan (CMP), including archaeological clearance of selected areas, interpretive signage, and other efforts. The CMP emphasizes implementing a high-quality recreation experience, without intrusions, that allows visitors to vicariously share historic trail use experience. Those efforts are underway and will be ongoing before and during Spaceport construction and operations. NHT officials expect that recreational use is steadily increasing.	L29-023

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Comment L29. Page 6 of 10.

El Camino Real de Tierra Adentro Trail Association (CARTA)
Response to the FAA Draft EIS (18 August 2008)

17	3-8	"... considering proposals to prepare a formal National Register of Historic Places (NRHP) Multiple Property Documentation Form" on behalf of El Camino Real.	In addition to supporting the submission of NRHP Multiple Property nominations for the Camino Real, the New Mexico Spaceport Authority has also publicly committed to supporting and assisting with the nominating of El Camino Real de Tierra Adentro (in the U.S. and Mexico) as a UNESCO World Heritage Site.	L29-024
18	3-15	"FAA Order 1050.1E states that special consideration needs to be given to the evaluation of the significance of noise impacts on noise-sensitive areas, including wildlife refuges."	While it is presently classified as a Class II wildlife refuge area, CARTA is aware of efforts to reclassify the Camino Real NHT as a Class I area. In light of this, **CARTA recommends that the Camino Real NHT be considered as if it were a Class I wildlife refuge area**. Currently, the only noise emanating in the area is from natural sources (i.e., wind, insects, bird calls, etc.). Thus, visitors presently encounter few intrusive sounds, and air quality is unspoiled. All efforts (through elimination or mitigation) should be made to preserve that.	L29-025
19	3-17	"No Federal laws specifically address visual and light impacts."	Although this statement is true, **CARTA believes that the FAA should include a requirement with the license that NMSA and its tenants adhere to guidelines published by the International Dark-Sky Association and the New Mexico Nigh Sky Act.** These measures would preserve the pristine Jornada del Muerto night sky.	L29-026
20	3-39	"... to link Mexico City (the capital of New Spain) with *San Juan Pueblo*..."	Several years ago San Juan Pueblo officially changed its name to its native designation, *Ohkay Owingeh*. **CARTA contends that it should be referred to by today's proper name.**	L29-027
21	4-8	"Anticipated impacts on potential Section 4(f) lands would be localized and temporary."	We disagree. At least ten Section 4 (f) resources associated with El Camino Real de Tierra Adentro National Historic Trail, and the Trail corridor itself, will be substantially, irrevocably, and adversely impacted by Spaceport activities despite the proposed mitigation measures. **These statements should be re-evaluated.**	L29-028

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Comment L29. Page 7 of 10.

El Camino Real de Tierra Adentro Trail Association (CARTA)
Response to the FAA Draft EIS (18 August 2008)

22	4-31, et al.	"Examples of project changes and commitments pertaining to visual resources, and in particular to the visual resources of the NHT and the Aleman Draw Historic District, include..."	**CARTA recommends the specific inclusion of these additional measures as explicit requirements or conditions of an FAA license:** (1) Fencing should be minimal and discreet. — Similar to included comments about minimal and discreet building design, fencing should be as opaque as possible. (2) Publishing of all data recovery and research findings (archaeological, historical, scientific, and technical). — There are several references to conducting data recovery or research, but there is no mention of reporting on the findings. Reporting is a necessary and needed function, particularly as a form of mitigating effects on the Camino Real NHT. (3) Scheduling at least four substantive periods of "No Spaceport Activities." — This would allow heritage tourists and nature enthusiasts multiple opportunities annually to experience the remote setting and wildlife of the Jornada del Muerto without modern auditory or visual intrusions.	L29-029
23	4-47 & 4-48	"Indirect physical disturbance of historic properties could occur from changed erosion patterns, inadvertent impacts caused by Spaceport America workers or tenant organizations, and vandalism or illegal artifact collecting by workers or visitors." "The impacts would be permanent, and, without mitigation, could accumulate over time to be significant."	In this section is extensive discussions which highlight the need for NMSA-Tenant covenants and vigilant on-site resource protection during Spaceport operations and particularly during X Cup Prize events. This includes the somewhat passive use of "could" or "would" when the imperative "will" is called for. It is not enough to suggest or even recommend mitigation measures. **CARTA requests that mitigation be mandated as a requirement or condition of the FAA license** (if issued).	L29-030

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Comment L29. Page 8 of 10.

El Camino Real de Tierra Adentro Trail Association (CARTA)
Response to the FAA Draft EIS (18 August 2008)

24	4-104	"Although the Proposed Action would result in beneficial economic impacts to the region by supporting and facilitating limited growth, it would not induce growth."	This contradicts public assertions in recent years by NMSA, state agencies, and other Spaceport proponents. It is logical to assume that wherever private enterprise can make it possible that there will be secondary impacts on private lands within the region being considered. Indeed, CARTA is aware that private companies have acquired all privately owned land in Engle and Cutter. **CARTA suggests that the analysis of secondary development and growth have not been adequately assessed, projected, or analyzed.** These results may impact the overall evaluation of the Proposed Action.	L29-031
25	5-8	"Development of visitor facilities along El Camino Real NHT would result in increased visitor use and access. This could result in increased vandalism, inadvertent damage, or illegal artifact collecting along this historic property and to other historic properties nearby."	We disagree for two reasons. First, this statement should have no bearing or significance on the issuance of the FAA license. Second, NHT officials and CARTA are implementing "site hardening" measures (artifact identification with surface collection and archiving as necessary) in areas throughout the Jornada del Muerto. We also operate a successful Site Steward program for training about and oversight of sensitive areas. These measures and NHT development of visitor facilities will heighten public awareness, appreciation, and site protection for historic properties in the region.	L29-032
26	5-8 (including similar discussions on 4-47)	"All adverse impacts from the Proposed Action and these future projects could be individually mitigated to a level that is not significant through compliance with the Section 106 process."	We disagree. The Proposed Action and future projects (including continued Spaceport operations beyond the currently considered five-year license) will be cumulative, significant, and irrevocable (even with mitigation efforts that reduce impacts to a level that is "not significant through compliance"). These will have negative impacts to historic resources, the heritage of the Jornada del Muerto, and natural tourism experiences.	L29-033
27	6-2		Please change "could" to "should," and **add CARTA's suggestions to this list of mitigation measures**, including the establishment of "No Spaceport Activities" or "Quiet" days.	L29-034
28	8-3	"Maria Santiago"	Should read "Mark Santiago."	L29-035

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Comment L29. Page 9 of 10.

El Camino Real de Tierra Adentro Trail Association (CARTA)
Response to the FAA Draft EIS (18 August 2008)

29	Assorted/ Misc.	**CARTA requests assurances (perhaps through a licensing requirement) from the FAA and NMSA that public access to the Yost Escarpment and other points along the county road near Upham will remain open (e.g., no locked gates) during regular Spaceport operations**, except in narrow instances (during launch operations) with advance notice to the public.	L29-036
30	Assorted/ Misc.	CARTA is generally concerned about the impacts of the presence and operation of Spaceport America on the physical and visual elements of the Camino Real NHT and on related heritage tourism efforts. These are among the reasons why the National Trust for Historic Preservation named the Camino Real de Tierra Adentro as one of the Eleven Most Endangered Sites in 2007 (which was not mentioned in the Draft EIS). The Camino Real de Tierra Adentro also has very high potential to be listed as a UNESCO World Heritage Site, which would increase heritage tourism. This possibility could be negatively impacted by the Spaceport—a contingency that has not been addressed in the Draft EIS.	L29-037

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Comment L29. Page 10 of 10.

Response to comment letter L29:

L29-001

Thank you for your comment.

L29-002

Thank you for your comment.

L29-003

The El Camino Real route has been added to the infrastructure maps in Chapter 2.

L29-004

Thank you for your comment.

L29-005

Thank you for your comment.

L29-006

This analysis is addressing visual resources or scenic attributes, not historic properties. The table on page ES-9 presents the impacts of the proposed action. The text on page ES-14 is describing the cumulative impacts of the proposed action when added to reasonably foreseeable future actions. The statement that starts this paragraph reiterates that "The visual impacts and light emissions resulting from construction and operation of Spaceport America would not be significant for the project area." FAA considers the analysis to be valid, as it conforms to requirements per FAA Order 1050.1E, Change 1.

L29-007

For the preparation of NEPA documents, where a proposed action is being considered for implementation, the FAA and many other Federal agencies use "would" and "could", and not "should" or "will" to make it clear that an agency decision regarding the action has not been made at the time of the writing.

L29-008

The bulleted list presents some ideas that could be considered during development of the data recovery and mitigation plans under the Section 106 process. It is not meant to be an exhaustive list. The Section 106 process will result in identification of appropriate mitigation measures.

L29-009

The FAA has developed a Programmatic Agreement pursuant to Section 106 and in consultation with the New Mexico SHPO and consulting parties, which is attached as Appendix P. In agreement with Section 106 of the National Historic Preservation Act, and the regulations implementing the Section 106 process (36 CFR 800), an executed Programmatic Agreement is evidence of the agency's compliance with Section 106, and must be signed prior to issuing the Record of Decision. The FAA is responsible for ensuring that the undertaking is carried out in accordance with the Programmatic Agreement.

L29-010

In accordance with FAA Order 1050.1E, Change 1, the FAA considers mitigation measures for those resource areas where it has been determined in the NEPA document that significant impacts would occur. For this NEPA analysis, the only resource area with significant impacts is Historic, Architectural, Archaeological, and Cultural Resources. The FAA developed a Programmatic Agreement for resolving adverse effects to historic properties – it is attached to this EIS as Appendix P.

L29-011

See response to L28-016.

L29-012

Thank you for the information. The Farm and Ranch Museum has been added here and in Section 4.5.

L29-013

Because of the scale and the amount of information contained on this map, the El Camino Real route will not be added to this map. It has been added to the infrastructure maps contained in the rest of Chapter 2.

L29-014

The FAA has developed a Programmatic Agreement pursuant to Section 106 and in consultation with the New Mexico SHPO and consulting parties, which is attached as Appendix P. In agreement with Section 106 of the National Historic Preservation Act, and the regulations implementing the Section 106 process (36 CFR 800), an executed Programmatic Agreement is evidence of the agency's compliance with Section 106, and must be signed prior to issuing the Record of Decision. The FAA is responsible for ensuring that the undertaking is carried out in accordance with the Programmatic Agreement..

L29-015

See response to L28-20.

L29-016

Thank you for your comment.

The X Prize Cup event is addressed in all of the resource analyses with the best available information. FAA considers the analysis of the X Prize Cup to be valid.

NMSA is currently developing a Memorandum of Understanding with the BLM to design recovery procedures for launch vehicles that inadvertently land on BLM-administered lands.

L29-017

Provisions for landings at WSMR are described in Sections 4.3.1.2, 4.5.1.2, 4.10.3.1, and elsewhere throughout the EIS.

L29-018

Commercial space launch operations would be required to apply for a license or permit for the FAA to operate from the launch site. Applicants would provide flight hazard information, which would be analyzed as appropriate.

L29-019

The location of El Camino Real has been added to the infrastructure maps. The viewshed has not been added. Viewshed impacts to El Camino Real are addressed in Section 4.5.

L29-020

Infrastructure elements with known locations and details have been depicted. Facilities that have not been specifically designed or located would be in the launch development areas.

L29-021

Infrastructure elements with known locations and details have been depicted. Facilities that have not been specifically designed or located would be in the launch development areas.

The proposed action includes just the 10,000-foot runway, which would be used for landing planes associated with Spaceport America operations.

L29-022

The road, as described, is what is planned for the five-year term of the license. If NMSA determines a need for expanded facilities beyond that described in this EIS within the five-year

license term, the FAA would review the plans and determine the need for additional Section 106 or NEPA compliance. Also, Spaceport America would be located on State Trust Lands, and would be subject to compliance with the NM Prehistoric and Historic Preservation Act.

L29-023

The affected environment describes the current condition of the various resource areas.

L29-024

Thank you for your comment.

L29-025

Thank you for your comment.

L29-026

The Guidelines and the Act are both discussed in Sections 3.4 and 4.4. The bulleted list at the beginning of Section 4.4 shows that NMSA has already committed to the Guidelines and Act for the planned security and safety lighting.

L29-027

Thank you for this information. It has been added to the text.

L29-028

Thank you for your comment.

L29-029

The items listed are those things that NMSA has already done or committed to do.

L29-030

In accordance with FAA Regulations 1050.1E, Change 1, the FAA considers mitigation measures for those resource areas where it has been determined in the NEPA document that significant impacts would occur. For this NEPA analysis, the only resource area with significant impacts is Historic, Architectural, Archaeological, and Cultural Resources. FAA has committed to following certain standards (e.g., trenching) and conducting certain biological surveys to ensure no additional significant impacts.

L29-031

The FAA considers the analysis of secondary or induced impacts to be valid, as it conforms to requirements per FAA Order 1050.1E, Change 1.

L29-032

The FAA considers the analysis of cumulative impacts to cultural resources to be valid, as it conforms to requirements per FAA Order 1050.1E, Change 1.

L29-033

The sentence has been changed to read "Some of the adverse impacts from the Proposed Action and these future projects could be individually mitigated to a level that is not significant through compliance with the Section 106 process."

L29-034

The bulleted list presents some ideas that could be considered during development of the data recovery and mitigation plans under the Section 106 process. It is not meant to be an exhaustive list.

L29-035

Thank you for the information. The change has been made to the text and our mailing list.

L29-036

As stated in Sections 4.1.1.1 and 4.1.1.2 in the EIS, NMSA cannot block access to BLM-administered lands.

L29-037

The listing of the Trail as one of the 11 Most Endangered Sites in 2007 by the National Trust has been added to Section 3.4.5.6 of the EIS, as well as the consideration of nomination as a UNESCO World Heritage Site.

John P. Wilson
ARCHEOLOGICAL AND HISTORICAL RESEARCH

August 12, 2008

FAA Spaceport America EIS
c/o ICF International
9300 Lee Highway
Fairfax, Virginia 22031

Dear Sirs:

This letter constitutes my comments on the Draft Environmental Impact Statement for the Spaceport America Commercial Launch Site in Sierra County, New Mexico.

With reference to your Section 3.1.4.6, p. 3-8, and Section 3.5.4.7, "Aleman Draw Historic District", also your Exhibits 2-10 through 2-15 and 3.4-1, among others, these show the Proposed Entrance Road (County Road A-21 at present) passing directly through the historic Paraje del Aleman, as identified on Map 4-C of the El Camino Real de Tierra Adentro National Historic Trail Final Environmental Impact Statement. From your own discussion, it appears that the Spanish-Colonial aspect of this important Historic District , the Paraje del Aleman, will be entirely compromised by construction of a modern paved access road through the site(s). Isn't there a better location for the access road? L30-001

Your Exhibit 3.4-1, by comparison with Exhibits 2-2 through 2-5 and others, shows the privately-owned quarter-section that includes the Aleman Draw Historic District bounded on the east and on the west by BLM lands. It has long been BLM policy to assert jurisdiction over the use and upgrades of roads that cross lands owned by other parties, where such roads pass from BLM lands to either side. My understanding is that the BLM's permission will be needed to improve a road at the location shown into a permanent access road. It is notable that on p. 3-5 the BLM is not included with the entities with whom the NMSA has secured agreements for long-term access for Spaceport America. Any such agreements would necessarily have to include the underground transmission line and fiber optic cables as well. Agreement with the BLM for a long-term access should be reached before this EIS is finalized. L30-002

With respect to the three surveys to identify and record cultural resources, it is stated (P. 3-28) that 3,364 acres were covered. There is no map that indicates the location(s) of the survey tracts, which amount to about 5 1/4 square miles in all. This is obviously much less than the "Project area", which is referred to a number of times but never defined or delineated on a map (Project boundary and Project site are similarly undefined). These survey tracts are about one-fifth of the extent of the 26 square mile proposed Spaceport America total area (your Exhibit 2-2 and 2-5 through 2-16) but presumably lie somewhere within it. Cannot these survey areas be added to a map such as your Exhibit 2-5 through 2-8? As it is, the impression is formed that a bare minimum of the Project area (whatever that is) has been examined by archeological surveys, and there is no basis for judging whether all of the areas that will be impacted by construction L30-003

Comment L30. Page 1 of 2

have been examined. We also have the terms Region of Influence, Area of Potential Effects (APE) (said on p. 3-25 to be the same thing) and Physical APE, which are not indicated on any maps but are referred to a number of times. At a bare minimum, the final EIS should reduce this confusion in terms by showing what areas were examined by the archeological surveys. L30-003

We see (p. 4-42) that 47 of 64 identified archeological, architectural and other cultural resources are already considered eligible for NRHP listing. Whatever the number that will be or may be impacted by the project, action should be taken as soon as a final EIS is agreed upon, if not before, to first sign a MOA and then prepare a Research Design for the mitigation of potentially impacted properties, in consultation with the New Mexico SHPO. This is not something done overnight; lead time is needed to draw up and approve a Research Design, then implement it by securing funding; advertise for bids; award a contract or contracts; and eventually approve the reports that result, all before construction begins. Drafting of a final EIS does not mean that earthmoving can begin, a point that may be overlooked. L30-004

Along this line, some of the terminology relating to the impacts of the Proposed Action are non-committal and even evasive. Comments about measures to avoid or mitigate effects that "could be considered" (pp. 4-47, 6-2) should be changed to "will be included in the MOA". This also has the effect of making the document more consistent, as we read on p. 5-7 that "the FAA will consult with the New Mexico SHPO to develop measures to avoid or mitigate the adverse effects,...". L30-005

Final, and this is primarily from a layman's perspective (I do have my B.S. degree in Mechanical Engineering, however), your Exhibit 3.7-2 indicates that at least half of the Vertical Launch Area at the proposed spaceport will lie within a 100-year floodplain. From our recent experiences in Doña Ana County, New Mexico and El Paso, Texas with storms that leave us with 100-year floods, this would appear to be a very bad design decision - barring the creation of some kind of buoyant concrete unknown to me. L30-006

Sincerely,

John P. Wilson

John P. Wilson, PhD

Response to comment letter L30:

L30-001

The exact location of Paraje de Aleman has never been determined or discovered. The entrance road would pass through the general area of the Paraje. The location of the access road was determined by NMSA in response to the concerns of stakeholders that there not be a new crossing of El Camino Real de Tierra Adentro. Thus, the entrance road will be constructed where there is an existing county road.

L30-002

As shown in Exhibit 2-3, the private Aleman Draw Historic District land is bounded by State Trust Land.

L30-003

The areas covered by the three surveys are described in Section 3.5.4.2 and show that all construction areas were covered in the surveys.

L30-004

The FAA has developed a Programmatic Agreement pursuant to Section 106 and in consultation with the New Mexico SHPO and consulting parties, which is attached as Appendix P. In agreement with Section 106 of the National Historic Preservation Act, and the regulations implementing the Section 106 process (36 CFR 800), an executed Programmatic Agreement is evidence of the agency's compliance with Section 106, and must be signed prior to issuing the Record of Decision. The FAA is responsible for ensuring that the undertaking is carried out in accordance with the Programmatic Agreement.

L30-005

During consultation with the NM SHPO and the other consulting parties, the FAA will develop the mitigation measures. The possible measures listed in the EIS are suggestions only. Specific mitigation measures will be determined through the Section 106 process.

L30-006

Thank you for your comment.

Farfel, Shaina

From:
Sent: Saturday, August 16, 2008 5:00 PM
To: Spaceport America EIS
Cc:
Subject: comments on draft EIS

Greetings:

Herewith my comments on the Spaceport America draft EIS.

Comment 1: At page ES-1, the EIS states, "[t]he proposed site is in Sierra County near Upham, New Mexico (NM) at a location approximately 45 miles north of Las Cruces . . . ." See also EIS, p. 2-1 (statement is repeated). The actual distance between Las Cruces (intersection of I-25 and US 70) and the proposed Spaceport America entrance is more like 51 miles. The 45-mile distance given in the EIS is thus off by over 13%. The distance between Las Cruces and the spaceport entrance is a basic fact, and easily verifiable. The fact that the EIS drafters did not verify such simple fact, taints the entire EIS, and leads one to wonder what other facts on which the EIS's conclusions are based are wrong.

Furthermore, even if 45 miles is accurate, the recited distance wrongly gives the illusion that the spaceport is accessible as a practical matter from Las Cruces by a relatively short drive. Accessing the spaceport from the south would be on a series of unpaved county roads (E071, E072, E070, and A013) from the Upham exit near Rincon on I-25. Such roads are dirt, and improvement of the roads is not part of the Proposed Action. Such route is not always easily passable in passenger cars due to mud, dust, sand, ruts, washboard, and arroyos. The speed limit on such road is 25 MPH, and even that speed is not possible at all times due to the condition of the road, including the presence of wandering cows. Nighttime collisions between vehicles and cows have occurred. Road conditions will only get worse with increased use. And, regular travel on such road would lead to increased vehicle repair and maintenance costs, including tire repair and replacement, which many people would not wish to incur. Therefore, a more accurate description of the road distance between Las Cruces and the spaceport would be that it is approximately 105 miles by reliable road. The EIS should be revised to reflect this. L31-001

Although the EIS recites that NMDOT has proposed a project to make permanent improvements to the series of county roads from the Upham exit near Rincon on I-25 to Spaceport America, EIS, p. 2-22, the cost of such improvements will conservatively be in the high tens of millions (the cost of improving 8.2 miles of county road A013 from Engle to the entrance of the spaceport is reportedly $10 million dollars, so one can easily see why making major improvements -- including several arroyo crossings -- to the approximately 36 miles of county roads from the Upham exit will be extremely expensive) and there is no guarantee that the New Mexico legislature (many members of which believe the spaceport is a boondoggle) will provide funding for such improvements. In any event, such improvements would occur, if ever, probably a decade or so in the future.

Comment 2: The analysis concerning the impact on community services in Sierra County is faulty because it is based on at least one faulty assumption and is, in any event, incomplete.

The EIS identifies 4 areas of "community services" that will be impacted by Spaceport America: fire services, law enforcement services, medical services, and education. See generally EIS, pp. 4-89 through 4-90. The quantitative analysis contained in the EIS is based on the assumption that all of the operational workers and one-third of the tourism and X Prize Cup workers will settle in Sierra County, thus raising its population by approximately 429 persons or by 2.7 percent. EIS, p. 4-88. L31-002

The assumption that only one-third of the estimated 927 in-migrating tourism and X Prize Cup workers will locate to Sierra County, and that the remaining 618 workers will reside equally in Otero County and Dona Ana County is logically flawed.

8/18/2008

Comment L31. Page 1 of 5

The flaw in the logic is demonstrated by this. First, the EIS assumes that all in-migrating construction workers would choose to live in Sierra County because Sierra County is "within commuting distance of the construction site." EIS, p. 4-84. This, of course, is a logical assumption, the logical corollary of which is that Dona Ana County (especially Las Cruces) and Otero County (Alamogordo) are NOT within commuting distance. The EIS contains an internal inconsistency by assuming on the one hand that all in-migrating construction workers will reside in Sierra County, and assuming on the other hand that two thirds of the 927 in-migrating tourism and X Prize Cup workers will live in Otero and Dona Ana counties. Adding to this inconsistency is the observation that "[n]o Otero County residents commute to Sierra County," at page 3-85.

Furthermore, the assumption that 309 tourism and X Prize Cup workers would reside in Otero County is logically flawed because it uncritically assumes that such workers would undertake the daily commute to and from Alamogordo (the nearest by road community in Otero County to Spaceport America). Because the paved-road (except for a short distance between Engle and the spaceport which is not yet paved) distance is approximately 175 miles from Alamogordo to the entrance of Spaceport America, then assuming an average traveling speed of 60 MPH, such commute would add approximately 6 hours to a worker's work day (or more if US70 is closed because of operations at WSMR). It is illogical to conclude that 309 workers (or any substantial number of workers) would choose to undertake a 6 hour daily commute. See EIS, p. 3-85 ("[n]o Otero County residents commute to Sierra County"). Moreover, conservatively assuming an average passenger vehicle fuel economy of 20 MPG, the daily commute would cost approximately $70 (assuming the price of gas is $4.00 per gallon) plus wear and tear and maintenance. It is illogical to assume that 309 or any substantial number of workers would choose to undertake this additional expense especially at the wage such workers could expect to earn. For example, at an hourly wage of $15, a worker would gross, after deduction for fuel, only approximately $50 for his or her eight-hour day of work and six hours of driving. A minimum wage job in Alamogordo would be more lucrative, and less time-consuming.

Although Las Cruces is closer to Spaceport America (approximately 105 paved road miles as compared to 175 paved road miles) the assumption that 309 workers (or any substantial number of workers) will make the daily commute is similarly flawed, as, assuming that the average traveling speed is 60 MPH, the daily commute would take approximately 3.5 hours and the daily fuel costs (again conservatively assuming an average fuel economy of 20 MPG and gas at $4.00 per gallon) would approximate $42. L31-002

Furthermore, any assumption that a sizable number of workers commuting from Las Cruces will use the more direct route of the series of county roads from the Upham exit near Rincon on I-25 to Spaceport America would be flawed. Such roads are dirt, and improvement of such roads is not part of the Proposed Action. Such route is shorter (51 miles from Las Cruces compared to 105 miles). However, the approximately 36 miles of county roads are not always easily passable in normal passenger cars due to mud, dust, sand, ruts, washboard, and arroyos. Many of these conditions would simply get worse with increased use. Also, traveling such route would take more time due to its lower speed limit (25 MPH) and mud, dust, ruts, sand, washboard, and arroyos. And, regular travel on such road would lead to increased vehicle repair and maintenance costs, including tire repair and replacement, which many people would not wish to incur. For the same reasons, the assumption at EIS, p. H-5, that half the traffic on A-013 would come from the north (from Truth or Consequences) and half from the south (from Dona Ana County communities) is fundamentally flawed, and thus the conclusions based on such assumption are fundamentally flawed.

As recognized above, although the EIS recites that NMDOT has proposed a project to make permanent improvements to the series of county roads from the Upham exit near Rincon on I-25 to Spaceport America, EIS, p. 2-22, the cost of such improvements will conservatively be in the high tens of millions (the cost of improving 8.2 miles of county road A013 from Engle to the entrance of the spaceport is reportedly $10 million dollars, so one can easily see why making major improvements -- including arroyo crossings -- to the approximately 36 miles of county roads from the Upham exit will be extremely expensive), and there is no guarantee that the New Mexico legislature (many members of which believe the spaceport is a boondoggle) will provide funding for such improvements. In any event, such improvements would occur, if ever, probably a decade or so in the future.

As a result of access issues from Otero County and Dona Ana County, instead of experiencing a population increase of only 2.7 percent, Sierra County will more likely experience a population increase between 4.64 and 6.59 percent. This of course, would place significant additional burden on Sierra County's police, fire, and medical services and education, which burden is not analyzed in the draft EIS.

The EIS recognizes that additional police, fire, and medical services, and educational staff may need to be

Comment L31. Page 2 of 5

hired, but uncritically concludes that the fiscal impact of hiring additional staff can be mitigated by the use of "tax revenues." EIS, p. 4-89 ("[t]he tax revenues could be used to mitigate impacts to community services as discussed below"). This conclusion is flawed because the EIS lacks a quantitative analysis regarding the issue of whether any additional monies disbursed by the state of New Mexico to the affected counties and municipalities derived from anticipated increased tax revenues will be of an amount sufficient to cover the increased cost of provision of additional police, fire, and medical services, and educational staff necessitated by a 2.7 percent, 4.64 percent, or 6.59 percent increase in population.

Furthermore, one of the stated tax revenues expected to increase is that of the gross receipts tax. EIS, p. 4-89. It is important to note that under NMSA 1978, 7-9-54.2, virtually all receipts received by companies as a result of spaceport operations are exempt from gross receipts tax. Accordingly, the resident taxpayers of Sierra and Dona Ana counties will be funding the facilitation of space tourism (as well as funding the concomitant increased demands on police, fire, and medical services and schools), but such counties will not be receiving gross receipts tax revenues from the space tourism operators. L31-002

Due to the lack of proper and complete analysis on the population increase to Sierra County and the increased burdens on "community services," the conclusion that "[a]dverse impacts to community services would be small," e.g., p. ES-16, is demonstrably in error. A quantitative analysis should be performed -- based on the more realistic anticipated population increase between 4.64 percent and 6.59 percent -- to determine the amount of money that will be funneled back to Sierra County by the State of New Mexico attributable to the anticipated increased gross receipts tax and income tax that is alleged will result from Spaceport America and compare it to the cost of the various municipalities or districts hiring, training, retaining, and equipping full time firefighters, additional police officers or deputies, teachers, and health care professionals, and providing other infrastructure based on the increased population between 4.64 and 6.59 percent.

Comment 3: The analysis of socioeconomic impact does not take into consideration the cost to the affected communities of acquisition of fire apparatus and hazardous materials response equipment necessary to adequately deal with an accident involving the ground transport of the hazardous materials identified in the EIS to be used in operations in Sierra County.

The hazards of rocket fuel are well known. According to the EIS, rocket fuel will be "transported to the site via truck." EIS, pp. 4-96, H-5. This means that the rocket fuel with be transported from I-25 to Spaceport America through the Sierra County communities of Williamsburg, Truth or Consequences, and Elephant Butte. The EIS recognizes that there are zero paid firefighters in Sierra County. EIS, p. 3-85. This means that there are zero full time firefighters available on a moment's notice. In the event of a mishap (of any type) volunteer firefighters must be paged out. Firefighters must then travel from their homes, jobs, etc., to the fire station to man apparatus and respond to the incident. Depending on a variety of factors, the number of firefighters that respond to a page can be low. Response times are delayed due to travel time to the fire station and waiting for enough firefighters to gather to man the apparatus. L31-003

The EIS completely fails to address the issue of whether the emergency equipment and personnel of the Sierra County fire departments is adequate to respond to an accident involving rocket fuel while being transported through populated areas, and if not, the socioeconomic impact of acquiring personnel, apparatus, and equipment. The EIS likewise lacks an analysis of the potential harm to the environment of a mishap involving the hazardous materials likely to be used in spaceport operations in the face of under-staffed, under-equipment local fire departments.

See Comment 4, below.

Comment 4: The EIS at page 3-85 recites that WSMR "is included as part of the socioeconomic study area or ROI because the emergency response personnel at WSMR would assist the county responders if called upon," and then recites that WSMR has 652 paid firefighters. That figure seems awfully high. Where did that figure come from? How was it verified? In any event, including WSMR's paid firefighters (whether they be 10 or 652) in the analysis concerning "emergency response and suppression services," EIS, p. 3-85, is disingenuous because WSMR is at least 130 paved road miles from Spaceport America, and the response time would be (assuming 60 MPH traveling average) over 2 hours. The response time would be longer if the responders utilized the unpaved county roads from the Upham exit on I-25. The response time would be much longer if US 70 happened to be closed for a missile launch at the time of the mishap. Were the drafters of the EIS aware that US 70 in the vicinity of WSMR is often shut down for hours at a time during missile launch operations? In 2 or more hours, the damage to humans, property, and the environment resulting from a mishap involving L31-004

Comment L31. Page 3 of 5

hazardous materials would be near complete, and the arrival of firefighters from WSMR likely superfluous. Including WSMR in the ROI was in error, and the analysis should be re-conducted without including WSMR in the ROI. L31-004

Comment 5: The children's environmental health and safety risks were not adequately analyzed.

The basis for the conclusion that impacts would not disproportionately affect children is that "the distance to the nearest school is 18 miles." See, e.g., EIS, p. 4-94. However, the EIS recognizes that rocket fuel will be "transported to the site via truck." EIS, p. 4-96. This means that the hazardous rocket fuel with be transported from I-25 to Spaceport America through the Sierra County communities of Williamsburg, Truth or Consequences, and Elephant Butte. The roads through such towns are in close proximity to homes, parks, and schools were children congregate. The analysis concerning the impact of Spaceport America on children should be re-performed taking into consideration the transportation of ultrahazardous materials through Sierra County communities in close proximity to homes, parks, and schools were children congregate, especially in light of the all volunteer fire departments in Truth or Consequences and Sierra County. L31-005

Comment 6: The EIS fails to consider or analyze the likelihood of property tax increases due to both anticipated increase in property values and likely increases in the tax rate and the effect of such increased taxes on minority or low-income populations who may be unable to pay the increased property taxes and thus lose their homes.

As a result of the strain on Sierra County's fire, police, and medical services, and public schools, resulting from an increase in population of between 4.64 and 6.59 (the 2.7% figure is based on faulty assumptions/analysis) a future increase in Sierra County property taxes is a near certainty. It is common knowledge that a large part of Sierra County's population is low-income and fixed-low income. According to the EIS, 21% of Sierra County's residents are living below the poverty level (EIS, p. 3-89) and almost 28% of Sierra County's population is aged 65 or older, meaning many of them are on fixed income or retired. EIS, p. 3-93. The EIS should be revised to include an analysis on whether increased property taxes will have a disproportionate impact on the low-income or minority populations of Sierra County. L31-006

Comment 7: Information is missing in Section 4.4.1.1.

The first sentence at the top of page 4-39 states, "Approximately miles of transmission line would be built off-site . . . ." Obviously, the number of miles of transmission line is missing. L31-007

Comment 8: Although the EIS recognizes that cumulative noise impacts will be significant (e.g., ES-14) the EIS fails to analyze and assess how these noise impacts will affect wildlife. L31-008

Comment 9: Although the EIS recognizes that cumulative impacts to historic properties will be significant (e.g., ES-14) the EIS fails to require mitigation. L31-009

Comment 10: The conclusion that "[u]nder the Proposed Action, impacts would be beneficial for population, economics, employment, housing, and tax revenues," EIS, p. ES-16, is unsupported by a quantitative analysis of whether expected increased tax revenues will offset the increased burden on Sierra County and the communities of Williamsburg and Truth or Consequences related to the provision of police, fire, medical and educational services. Similarly, there is an unexplained inconsistency between the conclusion that impacts would be beneficial for employment and the statement at page ES-20 that "[o]peration of the spaceport would not support a substantial number of workers." L31-010

Comment 11: The EIS recognizes that X Cup Prize activity will have an impact on the public lands in the vicinity of the spaceport, e.g., EIS, p. 4-5, but does not analyze the environmental impact that such activity will have. For example, X Cup Prize generated traffic on the local dirt roads is sure to negatively impact air quality. Furthermore, at-large camping on BLM land by potentially thousands of people is bound to result in littering, dumping, and damage to terrain and plant life. The EIS does not analyze this impact or explain how the impact can realistically be mitigated. L31-011

Thus concludes my comments. Please ensure that the EIS drafters address these comments in an intellectually honest manner in subsequent drafts and the final EIS.

Please do not hesitate to contact me if you have any questions.

8/18/2008

Comment L31. Page 4 of 5

I wish to be informed of developments in the EIS process such as availability of subsequent drafts and the anticipated date of the final EIS.

Daniel D. James

Looking for a car that's sporty, fun and fits in your budget? Read reviews on AOL Autos.

8/18/2008

Comment L31. Page 5 of 5

Response to comment letter L31:

L31-001

The distance is described as "approximately" because it is dependent on where the start and stop points are located. Also, the distance described is not road distance. There are no statements in the document to assert the ease or difficulty of getting from Las Cruces to the project area. The NM Department of Transportation has already commenced with the preliminary design and environmental analysis for improving the route from I-25 north to Engle.

L31-002

The socioeconomic analysis is not based on an assumption that all workers would be assigned to Spaceport America. The tourism industry workers the analysis estimated would in-migrate into the Region of Influence (ROI) are additional workers at a hotel that a tourist would stay at in the ROI as he or she visits the area (from a hotel at the Las Cruces International Airport on his first or last day in the area, to a hotel in Truth or Consequences when he or she visits Spaceport America, to a hotel in Otero County as he visits the Museum of Space History). The analysis also includes additional rental car attendants at the Las Cruces International Airport, workers at any new attractions added to the area to capitalize on the Spaceport America visitors, additional workers at existing points of interest within the ROI needed to accommodate an increase in attendance as Spaceport America visitors also visit these attractions. Workers specifically associated with the X Prize Cup event would not necessarily be working on a daily basis at Spaceport America or its immediate surrounding area except during the event. Given these different types of workers and their potential work location assignments, the socioeconomic analysis assumed that all operations workers would reside in Sierra County since their work location assignment would likely primarily be at Spaceport America and that workers in-migrating to work in the tourism industry and those related to the X Prize Cup event would reside equally in the three counties of the ROI. The socioeconomic analysis then assessed impacts on this assumption on multiple levels, including impacts to the ROI and impacts to the individual counties, especially Sierra County. These assumptions were also used in the Traffic and Transportation analysis presented in Appendix H. The FAA considers the socioeconomic analysis, and the assumptions upon which it is based, to be valid as they conform to FAA Order 1050.1E, Change 1.

L31-003

Thank you for your comment. The socioeconomic analysis acknowledges that there could be additional needs in the local fire and police departments, but does not attempt to detail all the needs that could result from the construction and operation of Spaceport America. As to specific concerns about an accident involving a transport vehicle carrying rocket fuel, accident analyses are beyond the scope of topics addressed in this EIS; however, the risk of transportation of hazardous materials is discussed in Appendix H (pages H-5 and H-6).

L31-004

Information on the emergency response personnel at WSMR was included in the affected environment portion of the EIS to comprehensively describe the available resources in the ROI. The WSMR personnel were not considered in the impact analysis and the description of the impact analysis specifies Sierra County (page 4-89).

L31-005

Thank you for your comment. The children's environmental health and safety risks analysis builds from the impact analyses, socioeconomic analysis, as well as all the other analyses, included in the EIS. Accident analyses are beyond the scope of topics addressed in this EIS.

L31-006

The comment expresses concern over property tax increases stemming from two sources: (1) increase in value of existing homes due to increased demand perpetrated by the in-migration of Spaceport America workers and (2) government officials increasing the tax rate. The analysis concludes that existing housing inventory is more than adequate to accommodate in-migrating workers, both the entire operations workforce and one-third of the workers estimated to be added to the tourism industry. Therefore, though demand for housing would increase and the supply of vacant housing would decrease, the supply is considered great enough that a shortage in supply would not occur to put upward pressure on prices. To address the second concern, tax rates are influenced by the jurisdiction's budget needs and anticipated revenues. Speculation on the actions of government officials with regard to the tax rate is beyond the scope of the EIS.

L31-007

Thank you for your comment. The number has been inserted.

L31-008

Cumulative impacts to wildlife are addressed in Section 5.9.

L31-009

Any required mitigation would be conducted when implementing the future projects.

L31-010

The FAA considers the socioeconomic analysis, and the assumptions upon which it is based, to be valid and to meet the requirements of FAA Order 1050.1E, Change 1. Beneficial impact for employment includes employment outside of Spaceport America. The statements compared in the comment describe two different things.

L31-011

Potential impacts associated with the X Prize Cup event are analyzed in each resource area in Chapter 4.

Farfel, Shaina

From: Cindy Goetz
Sent: Sunday, August 17, 2008 7:41 PM
To: Spaceport America EIS
Cc:
Subject: SPA draft EIS comment

As the nearest neighbor to SPA I would like to express my concerns.

#1 The safety of experimental flights over my home concern me. L32-001

#2 The threat of fire caused by launches is also a big concern. L32-002

#3 Water in this area is scarce. The amount SPA will use could deplete the nearby wells. The study done in the EIS is a vague estimation. L32-003

#4 The noise that will come with SPA is unwelcome to human and animals alike causing stress to both. L32-004

#5 We have already seen our quiet historic area being trashed by all the new traffic. When the rest of the world is trying to "go green" SPA is taking what was naturally green & turning it into an unnatural play area for the rich. L32-005

Our business of ranching and our personal lives will be negatively affected for the above reasons.

Cindy Goetz
Cutter Cattle Company Inc.

8/18/2008

Comment L32. Page 1 of 1.

Response to comment letter L32:

L32-001

Thank you for your comment.

L32-002

Thank you for your comment.

L32-003

The ground water quantity analysis is based on well data collected in 2007 and 2008 from the well field that could be used to supply Spaceport America if the Scenario 2 water supply (wells in the vicinity of Yost Draw) is implemented.

L32-004

Thank you for your comment.

L32-005

Thank you for your comment.

MESILLA VALLEY AUDUBON SOCIETY

PO Box 1645
Las Cruces, NM 88004

Stacey M. Zee
FAA Environmental Specialist
Spaceport America EIS
c/o ICF International
9300 Lee Highway
Fairfax, VA 22031

Dear Ms. Zee:

These comments on the FAA Spaceport America Draft EIS are submitted by the Mesilla Valley Audubon Society (MVAS). We will focus on those parts of the EIS that deal with wildlife and habitat especially as it affects birds.

The BLM is currently updating the Resource Management Plan's (RMP) for Sierra, Otero and Dona Ana counties. Although the Spaceport does not occupy Federal land it does affect a large portion of Federal land. The FAA Spaceport America EIS should comply with the updated RMP's. Therefore, we believe the final EIS should be delayed until the final RMP information is available. L33-001

Why are roads and transportation in an appendix? The roads are an integral part of this project and should be dealt with in the body of the EIS. Roads and increased use of roads create fragmentation. Fragmentation is not addressed as related to roads. Roads should be dealt with as a separate section and part of the cumulative effects. L33-002

The EIS contains many very well done maps dealing with a variety of issues but no maps showing the location and size of the three vegetation types mentioned in this EIS. What is the proportion of each of these vegetation types in the affected area? It is difficult, if not impossible, to evaluate impacts on wildlife and their habitat without these maps. The maps should cover not only the 16,000 acres of the Spaceport (page 91) but also the 8 mile wide area (Region of Influence, page 152) around the perimeter of the Spaceport that is included in the area impacted by this facility. This document should show how many acres are included in this Region of Influence. We estimate that this would include an area of at least 300,000 acres of wildlife habitat that would be affected. L33-003

It appears that throughout this EIS, wildlife and wildlife habitat are glossed over and addressed as part the grazing issue. It is alarming that, on page 92, the document states that the Spaceport and surrounding area is primarily undeveloped open ranch land. This seems to exclude the needs of wildlife and it should be referred to as range land. The EIS further states that if these lands are not available, adjustments may need to be made to adjacent BLM grazing permits; what about wildlife habitat? These are only a couple of example of how this document emphasizes ranching needs and fails to emphasize wildlife needs. Just as the needs of ranchers need protection so do the needs of wildlife. Domestic animals and their habitat needs must be dealt with completely separately from wildlife and their habitat needs. L33-004

Comment L33. Page 1 of 2

MVAS is particularly concerned with grassland bird species. The constant decline of desert grasslands over the past several decades has resulted in a dramatic decrease in the numbers of birds who are tied to this habitat type. According to The Nature Conservancy Prairie Wings Project, 70% of grassland birds species are in decline. Therefore, it is essential that all possible acres of desert grassland are protected or mitigated. L33-005

The Project area is within the Jornada del Muerto region, "which has a high degree of biological diversity in comparison to other regions of the U.S./Mexican Chihuahuan Desert with similar elevation, climate, topography, and water resources" (page 154). According to the EIS the Spaceport footprint is located within a high quality remnant Chihuahuan Desert Grassland habitat (page 91). This document mentions in several place the high quality of the grasslands in the Spaceport area. NMDGF considers semi-desert grasslands to be a "key terrestrial habitat" in need of preservation and restoration (page 153). The proposed Spaceport America Project is situated on NMSLO lands near the center of BLM's Jornada del Muerto Wildlife Habitat Management Plan area (WHA 037-9) (BLM, 1982) (page 95). This is an area that BLM has designated as high quality warranting special attention. L33-006

The document states that the BLM's habitat management objectives for this area focus on maintaining and enhancing habitats for the benefit of pronghorn antelope and other grassland obligate species. What are those "other grassland obligate species"? Many of them are birds which are species of concern or are offered other types of protection. Birds surveys were only conducted at one point in time and thus only produced forty species. If done properly these surveys should be done at various times of the year to include the breeding birds, spring and fall migrants and wintering birds. The impacts of this project on those species must be dealt with individually and separately from ranching issues. Different bird species react to disturbance in different ways. L33-007

If indirect land use impacts could occur within the Spaceport area as well the BLM-administered lands surrounding the proposed Spaceport America Project area that would result in loss of "high quality wildlife habitat (page 182, Sec 4.1.1.1)" then there should be mitigation in addition to the BLM Wildlife Habitat Management Plan. Mitigation of wildlife habitat loss should be addressed separately and not be part of a ranching management plan as indicated on page 182 and 301 of the EIS. In fact, on page 301 mitigation consists entirely of consulting with BLM, NMDGF, and NMSLO to develop measures within a ranch management plan. Any wildlife mitigation should not be part of a ranch plan. We would also like to know what the mitigation is before a license is issued. L33-008

MVAS believes the finding of no significant effect on wildlife is not substantiated. This document does not adequately address the Spaceport impacts on wildlife and the wildlife habitat values described by BLM and New Mexico Department of Game and Fish. L33-009

Sincerely,

Robert Tafanelli
Conservation Chair
Mesilla Valley Audubon Society

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Response to comment letter L33:

L33-001

Thank you for your comment.

L33-002

Transportation and traffic are not environmental impact categories that the FAA analyzes in accordance with FAA Order 1050.1E. However, due to stakeholder concerns regarding these issues, analysis of the impacts in this resource area was included as an appendix in the EIS.

L33-003

Mapping of vegetation communities within the Region of Influence of the proposed project is beyond the scope of analysis needed to characterize the impacts.

L33-004

Ranching is addressed under the Compatible Land Use resource category, Section 3.1 and 4.1. Potential impacts to wildlife and habitat are addressed under the Fish, Wildlife, and Plants resource category, Section 3.8 and 4.8. The text has been revised throughout the EIS to read range land.

L33-005

Thank you for your comment.

L33-006

Thank you for your comment.

L33-007

Potential impacts to birds, including species of concern, are addressed in Section 4.8.

L33-008

Mitigation includes avoiding, minimizing, and/or offsetting potential impacts. In accordance with FAA Regulations 1050.1E, Change 1, the FAA considers mitigation measures for those resource areas where it has been determined in the NEPA document that significant impacts would occur. For this NEPA analysis, the only resource area with significant impacts is Historic, Architectural, Archaeological, and Cultural Resources. However, as stated in Section 4.1.1.1, the measures included in the ranch mitigation proposal being developed in cooperation with the BLM and the NMSLO would minimize impacts to wildlife and habitat.

L33-009

Thank you for your comment.

Farfel, Shaina

From: D Goetz
Sent: Monday, August 18, 2008 1:55 AM
To: Spaceport America EIS
Subject: Draft EIS comments

The following comments are intended to assist in forming the final EIS on Spaceport America.

- **Noise** level studies in the draft EIS indicate no significant impact on humans or livestock during construction or operation of Spaceport America but the cumulative effect on humans and livestock at headquarters of Cutter Cattle Company, Inc. will be significant if horizontal launches of any aircraft are allowed. The headquarters are approximately 1.5 miles north and directly in the flight path of the north end of Runway 16 as identified in the EIS. With all the land available to Spaceport America the runway must be realigned. L34-001
- **Private Property** lying in the flight path of Runway 16 is under lease to a large wind energy company with plans to construct a field of wind turbines that may be in the flight path of Runway 16 of Spaceport America. Structures with rotor blades reaching as high as 300' above ground level are planned to produce commercial electrical energy. There is no provision for cooperating with future commercial development that may conflict outside the Spaceport America boundary in the EIS. L34-002
- **Water** is a precious resource in the desert. This area got its name, Jornada del Muerto (Journey of Death), because of the lack of water. I take exception to the draft EIS evaluation that "There could be small off-site water quantity (draw down) effects in the immediate vicinity of the site....." There is no provision for mitigation of damages in the EIS should draw down or depletion of established area wells occur. L34-003
- **Historic properties** are addressed in the draft EIS but there is no provision for mitigation of damages to these properties. L34-004

Thank you for the opportunity to comment. Please contact me if there are any questions. Please keep me informed as the EIS process continues.
Sincerely,
Charles D. Goetz
Cutter Cattle Company, Inc.

8/18/2008

Comment L34. Page 1 of 1.

Response to comment letter L34:

L34-001

Thank you for your comment.

L34-002

Thank you for your comment.

L34-003

The groundwater quantity analysis is based on well data collected in 2007 and 2008 from the well field that would be used to supply Spaceport America if the Scenario 2 water supply (wells in the vicinity of Yost Draw) is implemented.

L34-004

The FAA has developed a Programmatic Agreement pursuant to Section 106 and in consultation with the New Mexico SHPO and consulting parties, which is attached as Appendix P. In agreement with Section 106 of the National Historic Preservation Act, and the regulations implementing the Section 106 process (36 CFR 800), an executed Programmatic Agreement is evidence of the agency's compliance with Section 106, and must be signed prior to issuing the Record of Decision. The FAA is responsible for ensuring that the undertaking is carried out in accordance with the Programmatic Agreement.

To: Stacey M. Zee
FAA Environmental Specialist
Spaceport America EIS Draft

From: Sandra Tatum

Dear Stacey M. Zee, Project Manager:

Thank you and your team for the format of the Public Hearings on the Spaceport America EIS Draft, in Las Cruces on August 8, 2008.

I attended both meetings and contributed remarks.

In the informal conversation with FAA representatives period, I tried to convey that there are points of concern that do not fall in the EIS scooping that I think are critical to compliance and suggested mediation. I will introduce those points in these comments, as well as establish that I have participated in public meetings regarding this project, have read the 500 page EIS and spoken publicly at Dona Ana County Commission meetings regarding the funding and authorization mechanisms of the proposal..

As a resident and business owner in Radium Springs, fifteen miles north of Las Cruces, I have already experienced the impact of the momentum being generated by the proposal. This is impacting our area by the efforts of rock crusher and paving material providers trying to establish plants in an area of recreational and historical entities, agriculture and residential clusters, near the Rio Grande and the protected Robledo and Dona Ana Mountains.

The Spaceport America Proposal is a state driven project that has allowed private stakeholders a certain legitimacy because of their positions in New Mexico state government and appointed positions in various sponsoring agencies. Both citizens and county officials have had their questions to agencies met by proponents of the project, making it difficult to get clarity of why there would be justification for using public monies and a gross receipt tax to fund a tourist industry with private entrepreneurs.

The Spaceport Authority was only created in the 2006 legislative session, as well as the enabling legislation for the creation of a two-county Spaceport District as the vehicle for bond floatation. The State Land Office and the Office of Economic Opportunity and Tourism have been actively engaged in commercial development and creative financial deals with developers and promoters, trying to parlay these deals into increased revenue for the state, often at the expense of existing communities and endeavors.

Procedurally, some of these activities seem to overlook our constitutional restrictions regarding the State's role as an initiator. This seems to have executive approval and is very seductive to developers and representatives in our impoverished counties. And

Comment L36. Page 1 of 4

when a proposal can commandeer huge funding for media strategy, people are vulnerable to promises of jobs and salaries.

My point here, is that given that stakeholders are mixed with state agencies, there is a real danger in the way proponents are representing the capabilities for developing infra - structure, coordination and the required budgets to support the proposal under the EIS.

We ARE a poor state, but we understand the seriousness of space and national security based projects. This proposal, sold to voters and legislators as an important scientific venture that would provide educational and high-tech opportunities for up to 3,400 people, is actually a sort of rocket-rodeo with benefit coming to peripheral service developers to support events.

Space tourism contradicts what communities have been working on, in developing historical sites and recreational locations as their economic dynamic. Space tourism views our climate, our open spaces and sparse population as a sort of no risk zone. Nothing there.

Sometimes it is important to draw attention to the fact that as humans, we mistake the strength of our methodology for truth and that our interpretation of efficacy is influenced by the lack of structure. I understand that the FAA is considering the information provided by the proposal and reviewers in order to permit launches and that the decision if guided by set parameters of examination. And yet, knowing that federal, state and county agencies are already struggling with administrative and budgetary inadequacies, I must assert that there is no way to support Spaceport America in a way that meets safety and protective standards.

There is a community of concern in Dona Ana County that has come to the conclusion that the proposal, as described, is actually not about a spaceport, but rather was and continues to be, a mechanism for liberating public lands, contributing to the fuel storage and transportation industry on both sides of the Border and promoting the most conventional types of development—real estate sales, transport and hospitality-related services.

In the comments that now follow this statement, I will cite where they are related to chapters and pages of the EIS Draft.

---There are many instances in the EIS where the proposal language creates an impression of greater solidity than exists. For example, in the Executive Summary, there are references to assessment of past activities at the site (p.10) and their relationship to efforts to protect archeological and historical areas. These events, before roads, structures and facilities are not indicative of the tasks. There are references throughout to the New Mexico Spaceport Authority—taking actions before it was created. There are references to state sponsored studies showing great potential benefit for jobs and education—and I did not find a way to compare these to the findings in the EIS. Also, the site location is still being described as near Upham, New Mexico, creating a false

L36-001

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impression of distance from T or C in Sierra County. Upham, is the start of the huge road-paving plan that would keep transport and tourist traffic from interrupting flows in T or C. and interfering with tourist patterns at the lake. L36-001

--In both the Executive Summary (p,10) and Chapter 4, p.266, the statement and information is given that the proposal will not support a significant workforce, outside of construction and event periods . This is extremely important since many teachers and county residents testified on behalf of designating Gross Receipt Tax as a way of creating employment opportunities directly related to the Spaceport. Clearly, the promotional materials given in public meetings was not giving an accurate picture that indirect economic activity would be the possibility, not direct work at the site. L36-002

--The concerns of the BLM, represented in Tim Saunder's attached letter still await the agency's Tri-county RMP, probably by late 2009. There are very few field agents in the regional BLM personnel, making some of the mediation and training suggestions vulnerable to delays, as we see throughout the area currently. BLM management has exercised cooperation and creativity in meeting mandates and experiences the brunt of contradictory presences to its wildlife management areas. Again, budgetary factors are critical to the assumptions the proposal expresses regarding fulfilling mediation requirements. L36-003

--In Chapter 4, there is a statement that no large projects requiring aggregate for paving are affecting the area and thus, local resources would not be impacted. This is not an accurate picture of the cement and paving industry in southern New Mexico. Development has sharply affected this industry, as well as the competition and costs among producers and the regulations regarding placement of crushers. CEMEX, a Mexico based company, is currently negotiating with sites where desired aggregate is located and some companies have folded recently. Clearly, the vast areas affected by this proposal are impacted on many, many levels, maybe regarded as secondary in the EIS, but critical in the dynamic of economic life of existing residents. L36-004

--On page 270 of Chapter 4, the projected spending of visitors-guests-and space tourists totals to a projected amount that can easily be challenged because communities will be responding to increased service demands, altered patterns and all of the re-focusing of impetus that change brings. Within T or C, already the hot water based industry is being affected by property sales, with increased drilling of hot water wells. State law does not exist yet to protect these sources. This is just an example of how the proposal's assertion of profit lying in related support businesses is not without adjustment and impact that hits at essential factors in residents' lives. L36-005

--In the public hearings August 8, I brought up the question of the presence of the 435kV trunk line that lies five miles east of Ao13. This seems like a major safety issue regarding the permitting of launches, and although I found it mentioned two or three times in the EIS, there was no consideration or evaluation given as to danger,or future redirection. (p. 108) L36-006

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--The lack of response from Native American Tribes and in general, the way significance of sites and artifacts is determined under Federal guidelines brings up many questions about what level of recognition New Mexico agencies are willing to put toward this site on Public Land. Some tribes will not apply their taboos or concerns to others, nor communicate within the framework most stakeholders use. And, to date, we do not have active voices defending the integrity of evidence and relics that challenge long-held theories of movement, settlement and grouping. With projections of 20,000 visitors at some events, I challenge that training and control of strangers can be effective. Even small tours at pueblos, like Acoma, must be handled with high levels of vigilance to protect the area and insure appropriate conduct. L36-007

--In the Executive Summary, the impact of noise, light and traffic, is treated as a number that can be "flattened" over time and between day and night. There is a way that this impact, combined, is a major assault, which has as significant a changing effect on lives, land use and the community of plants and animals, as a drop in a water table. Again, the perception that it might be tolerable—like a small town's level—is a subtle statement of values, going back to how desert ranges and mountains are seen- as "empty". L36-008

In closing, I reiterate that the way this proposal has been constructed and funded leaves major questions about coordination and administration of the many factors that would justify launch permits in the area.

Thank you for your attention,

Sandra Tatum

--

Comment L36. Page 4 of 4

Response to comment letter L36:

L36-001

The effort to develop a spaceport in southern New Mexico has been ongoing for almost two decades, thus studies were conducted before the New Mexico Spaceport Authority was created.

L36-002

Thank you for your comment.

L36-003

Thank you for your comment.

L36-004

Thank you for your comment.

L36-005

The FAA considers the analysis, and the assumptions upon which the analysis is based, in the socioeconomic section to be valid. It uses the best available information and standard analysis methodology that complies with FAA Order 1050.1E, Change 1.

L36-006

NMSA has located the runway to be parallel with the 345 kV transmission line to ensure safety of flights. The possibility of partial burying of the line is mentioned in Section 5, Cumulative Impacts.

L36-007

The FAA has worked for two years with the NM State Historic Preservation Officer and 16 other consulting parties who are stakeholders concerned with the heritage resources in the vicinity of the project. Potential adverse effects have been identified to historic properties from the proposed project, and the FAA is working with the same parties to develop mitigation measures to address those effects.

L36-008

Thank you for your comment.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Mexico Ecological Services Field Office
2105 Osuna NE
Albuquerque, New Mexico 87113
Phone: (505) 346-2525 Fax: (505) 346-2542

August 13, 2008

Cons. # 22420-2008-FA-0036

FAA Spaceport America EIS
c/o ICF International
9300 Lee Highway
Fairfax, Virginia 22031

Dear Sir/Madam:

This letter is in response to your request for review and comments for the Draft Environmental Impact Statement (DEIS) for the Spaceport America (Spaceport) Commercial Launch Site, Sierra County, New Mexico Project. The Proposed Action includes construction of facilities needed to support licensed launch activities at the Spaceport. To operate a commercial launch site, the State of New Mexico must obtain a Launch Site Operator License (LSOL) from the Federal Aviation Administration (FAA), Office of Commercial Space Transportation. The Proposed Action must meet all of the FAA safety, risk, and indemnification requirements. The New Mexico Economic Development Department (NMEDD) through the New Mexico Spaceport Authority (NMSA) proposes to develop and operate this site for horizontal and vertical launches of suborbital launch vehicles (LVs) in Sierra County near Upham, New Mexico.

The LVs may carry space flight participants, scientific experiments, or other payloads. Launched payloads would land at the Spaceport or White Sands Missile Range (WSMR), located approximately 9 miles east of the site. The DEIS addresses the environmental impacts of constructing and operating the launch facility, including all related activities and uses that are reasonably foreseeable and any actions considered connected to the proposed action within the context of National Environmental Policy Act. The U. S. Fish and Wildlife Service (Service) offers the following comments and recommendations for the proposed project.

With full implementation of the proposed action, Spaceport operations are expected to require 10 mega volt amperes of electrical power capacity. Electrical power would be supplied from an existing 115 kilovolts (kV) transmission line located approximately 6 miles west of the intersection of County Road A013 and the Spaceport entrance road. In Phase 1, Sierra Electric Cooperative, Inc. would construct a substation at the 115 kV line to deliver power to the Spaceport. A transmission line would be constructed from the substation to County Road A013 and deliver 24 kV of power to the Spaceport site. The first 5.5 miles of the transmission line from the substation would be aboveground; the next 0.75 mile to County Road A013 would be underground. After crossing County Road A013, the transmission line would continue

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underground along the entrance road into the Project site. Birds could be electrocuted or collide with newly constructed transmission lines or their utility poles at new locations.

Four alternatives were considered in the DEIS, they are briefly described here:

Preferred Alternative (Proposed Action) – The FAA would issue a LSOL to NMSA that would allow the State of New Mexico to operate the Spaceport for both horizontal and vertical suborbital LV's launches. The NMSA would be authorized to offer the site for commercial licensed launches and support facilities would be constructed. The need to support commercial launches and host the X Prize Cup would be met by the State of New Mexico.

Alternative 1 (Horizontal Launch Vehicles Only) – The FAA would consider issuing a LSOL only for the operation of horizontal launches. In this alternative, the vertical launch complex would not be built; however, road and utility infrastructure would still be constructed to support amateur launches. Vertical commercial launches licensed or permitted by the FAA would not occur and no vertical LVs or components would land at WSMR. Amateur vertical launches could still occur because they do not require a FAA license or permit. This is considered a feasible alternative because a significant number of launches of horizontal LVs are projected, and most X Prize Cup activities would be located at the airfield.

Alternative 2 (Vertical Launch Vehicles Only) – The FAA would consider issuing a LSOL only for the operation of vertical launches. In this alternative, the vertical launch complex would be built but the airfield facilities would be more limited than the Proposed Action. Many X Prize Cup activities would still be located at the airfield. Horizontal commercial and X Prize Cup launches would not occur from the Spaceport. This is considered a feasible alternative because a significant number of launches are projected to be of vertical LVs.

No Action Alternative - The FAA would not issue a LSOL to the NMSA. Because the NMSA would not be authorized to offer the site for commercial licensed launches, facilities to support commercial launches would not be constructed. The current land use would remain unchanged or the land would be put to some other use. The need to support commercial launches and host the X Prize Cup would not be met by the State of New Mexico.

The Service has the following comments of the effects on terrestrial species of implementing the Preferred Alternative, Alternative 1, and Alternative 2.

Wildlife

The proposed Project Area does not contain unique or critical habitats, wetlands, or special areas needed by wildlife. Displaced wildlife may move to adjacent lands of varying quality. Construction of the facility may result in the loss of water sources such as drinkers and catchments built for wildlife or impact their use by wildlife.

Trenching activities would follow State guidelines (NMDGF 2003) to the extent possible, to prevent trapping animals in open trenches. Above ground transmission lines would be designed

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to minimize risk of electrocution of raptors and other avian species. Raptors and other avian species using above ground transmission lines could collide with LVs. Transmission lines and their utility poles in or near the Spaceport could increase raptor and avian species mortality.

Noise and visual disturbance from various proposed activities may adversely impact wildlife. Human presence and activity (additional vehicular traffic, etc.) during construction would likely result in disturbance, and a slightly increased probability of mortality to some wildlife species. It is unlikely to affect wildlife diversity within the area. It is proposed that daily launches would be expected. Displacement of birds and wildlife as a result of the noise and activity associated with launch and landing activities should be addressed. Noise, clearing/grading, and human presence are potential construction-related activities that could impact wildlife and birds at the proposed Spaceport. Noise levels in construction areas could be high; some displacement of small mammals and birds would be expected. This displacement would likely be permanent for some species and temporary for others. Clearing and grading would result in the loss of approximately 1,000 acres of wildlife habitat during the construction phase of the Project with approximately 825 acres re-vegetated post-construction. The exclusion of grazing animals from the fenced area may benefit small mammals, reptiles, and birds by allowing the enclosed plant communities to return to a non-grazed condition. A program involving production of native seed for rehabilitating roads and other areas with exposed mineral soil should be initiated. Set topsoil aside and use it as a seed bank spread over areas disturbed during construction.

Migratory Birds and Small Mammals

Concerning Migratory Bird Treaty Act (MBTA), the DEIS indicted that the proposed construction activities would remove vegetation. If the vegetation removal took place during the migratory bird nesting season (April 1 through August 31) active nests could constitute "take" as defined in the MBTA. Migratory birds use the Project Area and may be impacted by various proposed construction activities. The DEIS indicated that, to the extent possible, active bird nests would be relocated during construction or avoided until the young birds fledge from the nest. Construction during the migratory bird nesting season should be avoided where possible. The destruction of migratory bird nests with birds or eggs is prohibited as is the possession of said nests. Nest relocations would require Federal and state permits (i.e. nest relocation, temporary possession); training of field personnel on addressing active versus inactive nests; and reports may be required by the permit. Therefore, the U.S. Fish and Wildlife Service recommends that presence/absence surveys and nest occupancy be conducted prior to construction during the breeding season. Surveys would be conducted to ensure that vegetation clearing that occurs before September 1 would not harm nesting migratory birds, and if construction extends into the following breeding season, an additional migratory bird nest survey should be completed.

Birds such as raptors commonly use utility poles for perching, roosting, and hunting. Electrocutions typically occur on voltages less than 69 kV where separation between the wires is minimal. Electrocutions result in the death of the bird and often cause power outage. Substations located in favorable habitats can attract birds such as raptors for perching and

Comment L37. Page 3 of 9

roosting. Poles and towers also provide nesting opportunities for raptors and non-raptor species. These nests could create an operating hazard for electrical equipment and have caused equipment failure, fire, and property damage.

The Service recommends burying all new and re-routed transmission lines to minimize risk of electrocution, collisions, and discourage use within and near the Spaceport by raptors and other avian species. Without transmission lines and utility poles near the proposed Spaceport bird collisions with LVs would be minimized. To the extent possible, relocate active bird nests at towers and utility poles prior to construction and avoid nests with young fledglings. Obtain all proper Federal and state permits required for nest relocations (i.e. nest relocation, temporary possession). Field personnel should be trained on addressing active versus inactive nests; and reporting requirements. Construction during the migratory bird breeding season (April 1 – August 31) should be avoided where possible.

Large Mammals

The proposed project may affect the quality of hiding and thermal cover habitat for migratory birds, pronghorn antelope (*Antilocapra americana*), mule deer (*Odocoileus hemionus*), mountain lion (*Felis concolor*), Gemsbok (*Oryx gazella*) and other important wildlife species in the area.

Large mammalian species, such as pronghorn, mule deer, and gemsbok would experience temporary disturbance and permanent removal of habitat during and after the construction period. Habitat fragmentation due to the construction of buildings, runways, fences and other infrastructures would impact wildlife. Approximately 1,400 acres of the Project Area would be surrounded by an 8-foot tall perimeter fence to maintain personnel and visitor safety, facility security, and to keep wildlife off the runway and away from facilities. Most of the proposed perimeter fence would be a game fence (steel wire with both vertical and horizontal strands); a portion along the west campus area would be constructed of chain link. Fencing would also be present around the propellant storage area and along the secondary road leading to it. The proposed fencing would result in the permanent removal of available habitat and may disrupt established travel routes for large mammalian wildlife species.

Fenced areas would not enclose water sources for wildlife, but their proximity to spaceport activities may discourage use and require development of new sources. This should be determined in the ranch/allotment development plan and prepared by NMSA, the ranchers, New Mexico State Land Office (NMSLO), Bureau of Land Management (BLM), and the New Mexico Department of Game and Fish (NMDGF).

Fencing across arroyos and gullies was not described in the DEIS. The Service recommends that hinged flood gates be place over gullies and arroyos subject to flooding. After a high water event, hinged flood gate assemblies over gullies and arroyos would continue to prevent wildlife from entering the runway and campus areas thus preventing collisions, injuries, or death to wildlife, livestock, and humans.

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Pronghorn Antelope

Pronghorn antelope utilize dessert grasslands and are a focal species for desert grassland restoration within the region. Habitat management objectives of the BLM include maintaining and enhancing habitats for the benefit of pronghorn antelope and other grassland obligate species. This is accomplished by establishing permanent water sources to increase the distribution of antelope, providing food and cover for small and nongame species near water sources, implementing range improvements, and improving forage through projects to change the vegetative composition to more favorable species.

Existing wildlife water development located close to the proposed launch areas may have to be relocated away from the proposed facility. At the same time, mitigation for loss of water sources due to fencing of the Spaceport facility (either by inclusion within a fenced area or impeded access due to project fencing and launch operations) by developing additional waters away from the Spaceport. This should be determined in the ranch/allotment development plan and prepared by NMSA, the ranchers, NMSLO, BLM, and the NMDGF.

The project could displace pronghorn onto adjacent lesser quality habitats. Consideration is needed for potential off-site mitigation to enhance the quality of adjacent habitats. This should be determined in the ranch/allotment development plan and prepared by NMSA, the ranchers, NMSLO, BLM, and the NMDGF.

Livestock fencing (e.g., four-string barbed wire) would be installed on both sides of the entrance road from County Road A013 to the perimeter fence. Secondary roads connecting the facilities would be constructed within the designated development area. New fence construction and reconstruction and/or modifications of existing fencing would impede pronghorn antelope movement. The Service recommends that new, reconstructed, and modified fences be built to BLM guideline standards to allow movement of wildlife.

Federally Listed Species

There are ten federally listed or candidate species that have the potential to occur within Sierra and Doña Ana Counties. However, nine of these species or their habitats do not exist within the proposed Project Area. Therefore, impacts to listed species and their habitat are not applicable or discussed further in this review.

Northern Aplomado Falcon

The proposed project is located within historic habitat of the northern aplomado falcon (falcon) (*Falco femoralis septentrionalis*) which was listed as an endangered species on February 25, 1986 (51 FR 6686). On July 26, 2006 (71 FR 42298) the reintroduced falcon population was designated as "nonessential experimental" and does not require land managers to specifically manage for reintroduced falcons. When nonessential experimental populations are located outside a National Wildlife Refuge or in a unit of the National Park System, the Service treats the

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population as proposed for listing and only two provisions of the Endangered Species Act apply: section 7(a)1 and section 7(a)4. Section 7(a)1 requires Federal agencies to use their authorities to further the conservation of listed species. Section 7(a)4 requires Federal agencies to confer (rather than consult) with the Service on actions that are likely to jeopardize the continued existence of a proposed species. The results of a conference are advisory in nature and do not restrict agencies from carrying out, funding, or authorizing activities.

Surveys specific for the falcons conducted in 2006 and 2007, did not detect them in the proposed Project Area (North Wind 2006; Zia EEC 2007). The falcons prefer habitat that includes expansive grasslands with nearby perches (trees). Small open grassland areas observed at the proposed project site are marginally suitable for the falcons (Zia EEC 2007), although continued efforts to increase grasslands and reduce shrub coverage would likely improve habitat suitability.

Plants

The night-blooming cereus cactus (*Peniocereus greggii* var. *greggii*) grows in gently broken to level terrain in desert grassland or Chihuahuan Desert shrub, typically growing up through and supported by shrubs. This habitat is found in the proposed project area, but this cryptic species has not been observed on-site during surveys. The cactus blooms for only one night in June or July. The Service recommends surveys for the night-blooming cereus cactus be conducted during June and July.

The Service recommends the following:

General Recommendations

1. The Service recommends implementation of Preferred Alternative (Proposed Action). L37-001
2. A program involving production of native seed for rehabilitating roads and other areas with exposed mineral soil should be initiated. L37-002
3. Set topsoil aside and use it as a seed bank spread over areas disturbed during construction.
4. Construct of new wildlife watering sources (drinkers and water catchments) away from the Spaceport to mitigate the impact of losing those structures due to construction, fencing, or proximity to the Spaceport. This is accomplished by establishing permanent water sources to increase the distribution of antelope, providing food and cover for small and nongame species near water sources, implementing range improvements, and improving forage through projects to change the vegetative composition to more favorable species. L37-003
5. The project could displace pronghorn onto adjacent lesser quality habitats. Consideration is needed for potential off-site mitigation to enhance the quality of adjacent habitats (See Recommendation #4). L37-004
6. Bury all new and re-routed transmission lines to minimize risk of electrocution, collisions, and discourage use within and near the Spaceport by raptors and other avian L37-005

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species. Without transmission lines and utility poles near the proposed Spaceport collisions with LVs would be minimized. L37-005

7. To the extent possible, relocate active bird nests prior to construction and avoid nests with young fledglings.
8. Obtain all proper Federal and state permits required for nest relocations (i.e. nest relocation, temporary possession).
9. Train field personnel on addressing active versus inactive nests; and reporting requirements. L37-006
10. Construction during the migratory bird breeding season (April 1 – August 31) should be avoided where possible.
11. Presence/absence migratory bird surveys and nest occupancy should be conducted prior to construction during the breeding season. Surveys would be conducted to ensure that vegetation clearing that occurs before September 1 would not harm nesting migratory birds, and if construction extends into the following breeding season, an additional migratory bird nest survey should be completed.
12. Develop potential off-site mitigation to enhance the quality of habitat for mule deer (See Recommendation #4). This would mitigate for loss of habitat within and adjacent to the Spaceport. L37-007
13. Implement the Mitigation Measures and Other Measures to Reduce Potential Impacts as described in the DEIS. L37-008
14. Install hinged flood gates across gullies and arroyos to prevent fence destruction during runoff and flood events and to prevent entry to the runway and campus by wildlife. L37-009
15. The Service recommends that new, reconstructed, and modified fences be built to BLM guideline standards to allow movement of wildlife.
16. The Service recommends surveys for the night-blooming cereus cactus be conducted during June and July. L37-010
17. Offsite mitigation should involve the ranch/allotment development plan and prepared by NMSA, the ranchers, NMSLO, BLM, the NMDGF, and the Service. L37-011

Species Specific Recommendations

Aplomado falcon

1. Conduct land use and management activities to maintain the quality of grasslands within areas of suitable topography that provide sufficient prey for the falcon.
2. Minimize disturbance and fragmentation of falcon habitat.
3. Restore and maintain natural grassland communities and prevent encroachment of brush species (such as creosote bush, mesquite, tarbush). L37-012
4. Avoid practices that cause erosion (in the form of gully or dune formation) or shift species composition.
5. Maintain primary woody species (soaptree yucca and/or mormon tea) composition.
6. Maintain off-site raptor nesting activity in the area, through protection of nest sites, and maintenance of habitat conditions to supporting the falcon.

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7. Develop potential off-site mitigation to enhance the quality of habitats for the falcon. This would mitigate for loss of habitat within and adjacent to the Spaceport.
8. Avoid use of facility designs that are hazardous to falcons. Examples are improperly constructed transmission lines, open liquid storages that have no escape or entry prevention mechanism, and hazardous chemicals left available to wildlife.
9. That the FAA confer (rather than consult) with the Service under section 7(a) 4 of the Endangered Species Act, as amended. The results of a conference would be advisory in nature and not restrict the FAA from carrying out, funding, or authorizing activities

L37-012

Thank you for your concern for threatened and endangered species and New Mexico's wildlife habitats. We appreciate the analyses provided in the DEIS and your efforts to protect fish and wildlife species. In future communication regarding this project please refer to Consultation #22420-2008-FA-0036. If you have any questions, please contact Santiago Gonzales of my staff at the letterhead address or at (505) 761-4720.

Sincerely,

Wally Murphy
Field Supervisor

cc:
Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico
Director, New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division, Santa Fe, New Mexico

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Literature Cited:

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Response to comment letter L37:

L37-001

Thank you for your comment.

L37-002

The original topsoil from the site would be used as a seed bank to aid in re-vegetating disturbed soils.

L37-003

Construction of new drinkers or water catchments in off-site habitats, or repairing existing water sources, have always been, and continue to be, options for NMSA to implement in consultation with ranchers, NMSLO, and BLM. These options and others are described in Section 6.5.

L37-004

To address the agency and public concerns about removal of grassland habitat from fencing the area surrounding the horizontal runway, the area to be fenced with high game fencing to keep wildlife out has been reduced from 1,400 acres to approximately 695 acres. This area is required to be kept free of wildlife for safety and operational reasons. Other design measures have been included such as removing spectator areas and spectator parking areas from the proposed action, and utilizing busses to transport visitors. See also the response to comment L37-003.

L37-005

As stated in the EIS, all new distribution lines within the boundaries of Spaceport America (the approximately 26 square mile area) would be buried. The re-routed 7.2 kV distribution line would remain aboveground, but the re-routed portion would be constructed to meet NM Department of Game and Fish guidelines to reduce potential impacts to avifauna. The off-site distribution line would also be built to meet these guidelines.

L37-006

Surveys for nests of migratory birds would be conducted prior to initiation of construction. Nests would be relocated as needed, following established procedures, with appropriate Federal and state permits. Nests would be avoided during construction to the extent possible. Text in Sections 4.8 and 6.5 has been revised to address this.

L37-007

To address the agency and public concerns about removal of grassland habitat from fencing the area surrounding the horizontal runway, the area to be fenced with high game fencing to keep wildlife out has been reduced from 1,400 acres to approximately 695 acres. This area is required to be kept free of wildlife for safety and operational reasons. Other design measures have been included such as removing spectator areas and spectator parking areas from the proposed action, and utilizing busses to transport visitors. See also the response to comment L37-003.

L37-008

Section 6.5 has been revised to discuss an updated list of mitigation measures that would be implemented, as well as wildlife enhancements that are options for consideration.

L37-009

Installation of hinged floodgates would not be required as no arroyos are crossed by the perimeter/security high game fence.

NMSA would build wildlife impeding fence only around the proposed runway. All other fencing would follow BLM standards and guidelines to allow wildlife movement.

L37-010

NMSA would conduct surveys for the night-blooming cereus cactus during the June-July period. Section 6.5 has been updated to include this.

L37-011

Section 6.5 has been revised to discuss an updated list of mitigation measures that would be implemented. Enhancements of off-site grassland habitats, including brush control, construction of new drinkers or water catchments, and repair of existing water sources, have always been, and continue to be, options for NMSA to implement in consultation with ranchers, NMSLO, and BLM.

L37-012

The project area is considered to be marginal habitat for the northern Aplomado falcon, no falcons were found during surveys, and the finding by the USFWS (in a letter dated January 28, 2008) was that the proposed project "is unlikely to jeopardize" the falcon. On-site and off-site distribution line construction would be conducted to meet the guidelines of the NM Department of Game and Fish. Measures to enhance off-site desert grassland habitats remain a consideration for NMSA.

GOVERNOR
Bill Richardson

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Bruce C. Thompson, Ph.D.

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Hobbs, NM

August 18, 2008

Ms. Stacey M. Zee
FAA Environmental Specialist
Spaceport America EIS, ICF International
9300 Lee Highway
Fairfax, VA 22031

Re: Draft Environmental Impact Statement (EIS) for the Spaceport America Commercial Launch Site, Sierra County, New Mexico; NMDGF No. 12228

Dear Ms. Zee:

The New Mexico Department of Game and Fish (Department) has reviewed the Draft Environmental Impact Statement for the Spaceport America Commercial Launch Site, Sierra County, New Mexico. The Department does not agree with the conclusion in the draft EIS that impacts to wildlife resources would be "less than significant" and that these impacts do not warrant mitigation. Some of the significant impacts that would occur as a result of Spaceport development would be the direct loss of Chihuahuan Semi-Desert Grassland Habitat, fragmentation of habitat and the displacement of wildlife onto adjacent lesser-quality habitats. Chihuahuan Semi-Desert Grasslands are identified in the Comprehensive Wildlife Conservation Strategy for New Mexico as a key terrestrial habitat type. This habitat type is important to grassland birds and has been identified for conservation by the World Wildlife Fund. The Spaceport will physically impact 970 acres of grassland and will also fence large ungulates out of a minimum of 1,400 acres. As this acreage is on some of the best remaining grassland habitat in the area, there will be a significant impact to wildlife and mitigation measures should be required to address this impact. There is a lack of supporting documentation (in the draft EIS) as to how the conclusion of no significant impact to Chihuahaun Semi-Desert Grasslands was determined. L38-001

The EIS fails to adequately address both the indirect and cumulative impacts that the Spaceport will have on wildlife, in particular the effects on pronghorn and the state endangered desert bighorn sheep. The roads that lead into the area are proposed for improvements to facilitate the increased traffic to the Spaceport. In particular, State Road 51 that leads from Truth or Consequences to the Spaceport is crossed by bighorn sheep traveling between the Caballo and Fra Cristobal Mountains. Since these road improvements are the result of the Spaceport, the effect of these improvements should be covered in the EIS and mitigation measures need to be clearly identified in the report. Also, the road leading from the Upham Exit on I-10 to the Spaceport bisects the route that sheep use to cross between the San Andreas L38-001

Comment L38. Page 1 of 10.

and Caballo Mountains. Both roads are crossed by pronghorn and this connectivity needs to be maintained to prevent fragmentation of pronghorn habitat. Mitigation measures that will allow for the continued movement of desert bighorn sheep and pronghorn between habitats must be considered. Federal regulations, 43 CFR 1500-1508, sections 1502.14(f), 1502.16(h), 1508.14, state that mitigation measures must be considered even for impacts that, by themselves, would not be considered "significant." Sections 1502.16(h), 1502.2(c), state that all relevant, reasonable mitigation measures that could improve the project are to be identified, even if they are outside the jurisdiction of the lead agency or cooperating agencies. L38-002

The EIS states on Page 4.2 that a ranch plan was developed in cooperation with the Department. At no time was the Department involved with or consulted on any ranch management plan for lands affected by the Spaceport. L38-003

The Department requests that the proposed mitigation plan submitted by the BLM (see Attachment 1) be incorporated into the EIS. The EIS should clearly state that these mitigations will be carried out by the New Mexico Spaceport Authority (NMSA) as a requirement of the launch site operator license. L38-004

Thank you for the opportunity to review and comment on your project. If you have any questions, please contact Pat Mathis, SW Area Habitat Specialist, at (575) 532-2100 or patrick.mathis@state.nm.us.

Sincerely,

[electronic signature]
Matt Wunder, Ph.D.
Chief, Conservation Services Division

MW/pm

xc: Wally Murphy, Ecological Services Field Supervisor, USFWS
Luis Rios, SW Area Operations Chief, NMDGF
Pat Mathis, SW Area Habitat Specialist, NMDGF

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Spaceport Draft EIS, Attachment 1; NMDGF No. 12228

SPACEPORT AMERICA

PROPOSED MITIGATION PLAN

INTRODUCTION

A detailed analysis of the potential impacts to wildlife and biological resources as well as existing land uses was included in the Draft Environmental Impact Statement (EIS) for the proposed Spaceport America. As described in the Mitigation Section of the Draft EIS, the New Mexico Spaceport Authority (NMSA) has committed to working with the BLM, other government agencies, and landowners to develop a mitigation plan designed to mitigate direct and indirect impacts to current multiple use activities and biological resources within and adjacent to the project area.

This Mitigation Plan defines a detailed, specific list of planned actions that NMSA commits to undertake upon issuance of the Record of Decision for the Spaceport America EIS.

Livestock Grazing

A. SUMMARY OF POTENTIAL IMPACTS

The proposed action is located on lands administered by the NM State Land Office and are leased to two separate livestock operators (Ben and Jane Cain, and Phil and Judy Wallin). These state lands are grazed in conjunction with two separate BLM grazing allotments (Bar Cross Ranch Allotment #06020 and Lewis Cain Ranch Allotment #16022). The BLM grazing permits for these allotments recognize the carrying capacity for these state lands by virtue of a percent public land designation which determines the overall stocking level and amount of public land forage that is permitted for grazing. The removal of any portion of state lands from the grazing operation will ultimately affect the percent public land designation for these BLM grazing permits (i.e. a decrease in state lands controlled by the permittee would result in an increase in the percent public land designation, requiring adjustments to the existing BLM permits). In addition, some ranch infrastructure such as livestock waters, fences, and handling facilities will be impacted by the proposed action. Some of these waters on state lands that would be potentially affected also serve as base water for the BLM grazing permit. Unless these waters are replaced or relocated, qualification for the BLM permit may be affected and further adjustments to the BLM permit would be required.

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Spaceport Draft EIS, Attachment 1; NMDGF No. 12228

B. LIVESTOCK GRAZING MITIGATION PROGRAM

1. NMSA agrees to fund the development of a ranch/allotment management plan designed to maintain the economic viability of the existing ranch operations in conjunction with spaceport operations and consistent with BLM and State Land Office resource management objectives. The ranch/allotment management plan would be developed in close coordination and cooperation with the State Land Office, BLM and the New Mexico Department of Game and Fish and will include the following:

a. Livestock and resource management goals and objectives.

b. Proposed range improvements needed to maintain current grazing operations consistent with state and public land resource management objectives and improved grazing management to mitigate for impacts of spaceport construction and/or operation.

c. An adaptive grazing management strategy designed to provide up to five years of growing season deferment for brush control treatments, appropriate growing season deferment and voluntary non-use to mitigate for indirect wildlife impacts due to spaceport construction and operation.

d. Integration of wildlife management and habitat management plans.

e. A monitoring plan to measure progress toward attainment of livestock and resource management objectives.

Terrestrial Wildlife

A. SUMMARY OF POTENTIAL IMPACTS

Direct and indirect impacts to terrestrial wildlife or their habitat include incremental short and long term loss of habitat (short term disturbance of 970 acres due to clearing, grading, or other ground disturbance; 145 acres permanently impacted due to facility construction; 330 acres associated with ancillary facilities such as six miles of transmission line and twelve miles of fiber optic line), direct mortality, and the temporary and permanent displacement of wildlife away from areas of construction activity and future operation of the proposed spaceport. Wildlife, particularly big game, would be permanently displaced from approximately 1,400 acres of the project area surrounding the horizontal

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Spaceport Draft EIS, Attachment 1; NMDGF No. 12228

runway and facilities which would be enclosed by fencing to keep big game and livestock off the runways. This proposed fencing would disrupt established big game travel routes within the project area.

Several livestock and/or wildlife water sources are located within or adjacent to proposed spaceport project areas. Many of these waters will be impacted and will need to be reconstructed or relocated to maintain viable water sources for livestock and/or wildlife. For example, the existing vertical launch area located on state lands is located within 100 yards of an existing wildlife water catchment (funded by sportsman dollars through the Habitat Stamp Program) on adjacent public lands. Activity associated with spaceport construction and operation will preclude use of the water by wildlife.

The proposed action is located within grass rolling upland, mesquite rolling upland, mixed shrub rolling upland and grass flat standard habitat sites as identified and described in BLM inventory records. These Chihuahuan grassland habitat sites are generally situated within the lower basin portion of the Jornada del Muerto watershed where deeper soils continue to support mid to late seral (i.e. high quality, good condition) grasslands. The proposed action is located on state lands within these remnant grasslands which are identified as "key wildlife habitat" by the New Mexico Department of Game and Fish, supporting several "species of greatest conservation need" as identified in their Comprehensive Wildlife Conservation Strategy. Public lands adjacent to these state lands are comprised of mixed shrub rolling uplands, creosote rolling uplands, and mesquite sand dune standard habitat types. The Bureau of Land Management has been managing these adjacent public land habitats under the guidance of the White Sands Resource Management Plan and the Jornada del Muerto Habitat Management Plan (HMP). The primary objective of this HMP is to restore grassland conditions and increase the population density and distribution of pronghorn antelope within the management area. Habitat enhancement actions have included water development, fence modifications, and vegetation treatments to reduce creosote bush and mesquite densities.

B. TERRESTRIAL WILDLIFE MITIGATION PROGRAM

1. NMSA agrees to implement best management practices that would minimize destruction of terrestrial wildlife habitat including reducing vegetation clearing to areas essential to the proposed action and reducing soil disturbance by limiting off road travel.

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Spaceport Draft EIS, Attachment 1; NMDGF No. 12228

2. NMSA will comply with the Migroatory Bird Treaty Act by carrying out ground disturbing construction activities outside the breeding season of March through August whenever possible. If construction must occur during the breedings eason and nesting migratory or other birds are observed in the project area, all active nests will be avoided or relocated until young birds have successfully fledged.

3. NMSA agrees to fund the following habitat improvement projects:

	Project	Purpose	Time Frame	Estimated Cost
1.	8,000 acres of mesquite and/or creosote brush control on public and/or state lands adjacent to the proposed spaceport within the Jornada del Muerto Habitat Management Plan area	To mitigate direct permanent loss of 1,400 acres of pronghorn habitat associated with the exclusion fencing of the horizontal launch area and the displacement of pronghorn onto 10 sections of adjacent lesser quality habitat. These projects would restore degraded grassland habitats adjacent to higher quality grasslands impacted by spaceport operations. These projects would be accomplished in partnership with ongoing BLM NM grassland restoration projects within the Jornada del Muerto HMP area. Vegetation treatments will be designed for wildlife habitat and watershed improvement and not to increase livestock permitted use or off-set any loss of livestock forage due to implementation of the proposed spaceport.	1-10 years	$30.00/acre $240,000 total
2.	Erosion control structures	Designed in concert with brush control projects to reduce erosion and improve grassland conditions. The exact number of structures needed will be determined during design of proposed brush control	1-10 years	$30,000

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Spaceport Draft EIS, Attachment 1; NMDGF No. 12228

		projects. These projects would be accomplished in partnership with on-going BLM NM grassland restoration projects in the Jornada del Muerto HMP area.		
3.	Yost Pipeline and drinker. (1 mile pipeline, 1 boss tanks drinker)	To provide water for displaced wildlife within habitat adjacent to spaceport operations.	1-3 years	$15,000
4.	Kenick Tank Well Solar Pump	To provide yearlong water for displaced wildlife within habitat adjacent to spaceport operations.	3-6 years	$5,000
5.	Prisor Hill Wildlife Catchment Replacement	To provide water for wildlife displaced away from the existing Prisor Hill Catchment located adjacent to the vertical launch facilities.	1-3 years	$15,000
6.	Sand Tank Drinker	To provide water for displaced wildlife within habitat adjacent to spaceport operations. A pipeline and wildlife drinker would be constructed within the existing exclosure at Sand Tank well and storage.	1-3 years	$1,500
7.	North/South Tub Pipeline Extension (1 mile pipeline, 1 boss tanks drinker)	To provide water for displaced wildlife within habitat adjacent to spaceport operations. A one mile extension of the existing North/South Tub pipeline would provide water approx. 1 mile east of the spaceport operational boundary. This will also serve to relocate a base water and would be included in the ranch/allotment management plan.	1-3 years	$15,000
8.	Fence reconstruction/modification	Approximately 3 miles of fence would be modified to BLM antelope specifications within habitat adjacent to spaceport operations.	1-5 years	$15,000
9.	Section 26 Well and Pipeline	To provide yearlong water for displaced	1-5 years	$20,000 well

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Spaceport Draft EIS, Attachment 1; NMDGF No. 12228

		wildlife. Water would be located within or adjacent to existing brush control treatment areas. This water would also be included in the ranch/allotment management plan to support improved grazing management and distribution within these two pastures.		$30,000 pipeline
10.	Solar Pumps (3)	To provide yearlong water for displaced wildlife in locations currently serviced by windmills or pump jacks. These would also be included in the ranch/allotment management plan to support improved grazing management and distribution within these two pastures.	5-10 years	$5,000 each $15,000 total
				$401,500

4. The NMSA also agrees to cost share with the BLM, NMDGF, SLO and other potential partners to fund a cooperative research study to monitor the effectiveness of these mitigation measures in enhancing pronghorn and upland game habitat and population densities and distribution. The NMSA would cost share up to 50% of the total cost of the study which would be conducted by the New Mexico State University Wildlife Coop Unit. The total cost of the study is estimated to be $138,000.

Threatened, Endangered, Candidate, and other Special Status Species

A. SUMMARY OF POTENTIAL IMPACTS

Direct and indirect impacts to threatened, endangered, candidate and sensitive species or their habitat include incremental loss of habitat (including prey base) due to construction activity and ground disturbance, direct mortality, and the temporary and permanent displacement of wildlife away from areas of construction activity and future operation of the proposed spaceport. The federally protected "special status" species that have potential to be affected include the aplomado falcon, bald eagle, golden eagle, and the yellow-billed cuckoo. Other BLM sensitive species or species listed by the State of

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Spaceport Draft EIS, Attachment 1; NMDGF No. 12228

NM as endangered or threatened that are most likely to be found in the project area include the loggerhead shrike, Bell's vireo, and burrowing owls. The desert bighorn sheep (NM State listed endangered) may also utilize the project area as a travel corridor between the three adjacent occupied mountain ranges (Fra Cristobal, Caballos, and San Andres).

The proposed project area is located within potential aplomado falcon habitat. Falcon habitat suitability ranges from low to high potential (Young, et al, 2002, *Characterizing and Predicting Suitable Aplomado Falcon Habitat for Conservation and Planning in the Northern Chihuahuan Desert*). Aplomado falcons were released in 2006 within suitable grassland habitats north of the project area on private lands owned by the Armendaris Ranch and again in 2007 on lands administered by the BLM and White Sands Missile Range. The BLM has been conducting grassland restoration projects on public lands adjacent to the proposed project. These projects have been designed to improve habitat conditions for pronghorn and other grassland species, including aplomado falcons.

B. SPECIAL STATUS SPECIES MITIGATION PROGRAM

1. NMSA agrees to implement conservation measures to reduce impacts to special status species that may occur in the proposed project area. These conservation measures will include, but will not be limited to, reducing vegetation clearing to areas essential to the proposed action, limiting soil disturbance by limiting off road travel, biological monitoring prior to and during construction activities, avoidance of any nesting or roosting individuals, and relocation or avoidance of observed individual plant or animal species.

2. The presence of aplomado falcons within the project area will continue to monitored by state and federal agencies. Construction activities that may affect aplomado falcons will be conducted to minimize impacts to falcons observed within the project area. This may include avoiding construction activities that may affect aplomado falcons during the breeding season (Jan 1 – Jul 31), locating facilities to avoid impacts to potential nest sites, or relocating inactive raptor nests that may potentially be destroyed by construction activities.

3. To prevent electrocution of raptors, new or modified electric distribution lines and associated poles will be constructed to standards outlined in the most recent version of "Suggested Practices for Raptor Protection on Power Lines" published by the Edison Electric Institute/Raptor Research Foundation. Future modification or additions to power line structures would be required should they be determined necessary to ensure the safety of large perching birds.

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Spaceport Draft EIS, Attachment 1; NMDGF No. 12228

4. NMSA will implement New Mexico Department of Game and Fish guidelines for avoidance and mitigation of impacts by construction projects to burrowing owls if burrowing owls are found within areas proposed for construction activities.

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Response to comment letter L38:

L38-001

The EIS acknowledges impacts to desert grassland habitats and the displacement of some local wildlife species (primarily big game species) due to site construction and required fencing for safety and security purposes. To address concerns by agencies and the public for the removal of grassland habitat, the amount of area fenced surrounding the runway and campus has been reduced by half, from 1,400 acres to approximately 695 acres. This area is required to be kept free of wildlife for safety and operational reasons. All other fencing would be conducted to meet BLM guidelines so that wildlife movement is not further encumbered. Other design measures have been included such as removing spectator areas and spectator parking areas from the proposed action, and utilizing busses to transport visitors. Sections 4.8 and 6.5 have been revised to reflect these changes.

L38-002

Increased traffic associated with construction and operation of Spaceport America would pose an increased threat to pronghorn antelope and desert bighorn sheep. Traffic increases would peak during construction and then significantly decrease once construction is complete. Given the limited size of all three desert bighorn sheep populations currently in the project region and the small amount of "inter-population" travel likely to occur, the likelihood of sheep mortality from traffic is small. Additional information regarding traffic and transportation impacts is located in Appendix H of the Draft EIS.

L38-003

NMSA has since provided more information to the FAA regarding development of the ranch mitigation proposal. This statement has been corrected throughout the document.

L38-004

Section 6.5 has been revised to discuss an updated list of mitigation measures that would be implemented, as well as additional wildlife enhancements that are options for consideration. Enhancements of off-site grassland habitats, including brush control, construction of new drinkers or water catchments, and repair of existing water sources, have always been, and continue to be, options for NMSA to implement in consultation with ranchers, NMSLO, and BLM.

NATIONAL TRUST FOR HISTORIC PRESERVATION

August 18, 2008

VIA E-MAIL (SpaceportAmericaEIS@icfi.com)

FAA Spaceport America EIS
c/o ICF International
9300 Lee Highway
Fairfax, VA 22031

Re: Comments on the Draft EIS for the Spaceport America Commercial Launch Site, Sierra County, New Mexico

To Whom It May Concern:

Thank you for the opportunity to comment on the draft environmental impact statement (Draft EIS) for the Spaceport America Commercial Launch Site, Sierra County, New Mexico (Spaceport America). El Camino Real de Tierra Adentro National Historic Trail (Camino Real), one of the most important cultural resources in the American Southwest, will experience significant cumulative and indirect impacts from the construction and operation of Spaceport America. Draft EIS at ES-14. As a consequence, the Federal Aviation Administration (FAA) must comply with section 4(f) of the Transportation Act, 49 U.S.C. § 303(c), which requires a determination of whether there are "prudent and feasible" alternatives to using historic sites and, if none exist, "all possible planning to minimize harm" to the protected resources. The National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321–4370f, imposes additional responsibilities upon the FAA, including the obligation to evaluate the cumulative impacts of Spaceport America. For the foregoing reasons, the National Trust for Historic Preservation (National Trust) believes that the FAA has not satisfactorily met these obligations in the Draft EIS.

Interests of the National Trust

Congress chartered the National Trust in 1949 as a private nonprofit organization to "facilitate public participation" in historic preservation and to further the purposes of federal historic preservation laws. 16 U.S.C. §§ 461, 468. With the support of more than 283,000 members around the country, including over 1,400 in New Mexico, the National Trust works to protect significant historic sites and to advocate historic preservation as a fundamental value in programs and policies at all levels of government. In addition to our headquarters in Washington, D.C., the National Trust operates thirty historic sites open to the public and eight regional and field offices throughout the country. The National Trust also maintains a list of America's Most Endangered Historic Places to which eleven properties are annually added. In 2007, the National Trust placed Camino Real on this list due in large part to the State of New Mexico's desire to build Spaceport America adjacent to the trail.

I. The Draft EIS Does Not Comply with Section 4(f) of the Transportation Act.

Section 4(f) prohibits the "use" of historic sites for a transportation project unless: 1) "there is no prudent and feasible alternative" to the "use;" and 2) the project "includes all possible planning to minimize harm" to the protected sites. 49 U.S.C. § 303(c). In the Draft EIS, the FAA determined that the National Trails System Act (Trails Act), 16 U.S.C. §§ 1241–49, exempts portions of Camino Real from section 4(f) that have not been designated for protection by the National Park Service (NPS) and Bureau of Land Management (BLM). Draft

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EIS at 3-11; 4-8. Consequently, the FAA made none of the determinations required by section 4(f) for these resources, which will experience significant impacts from the construction and operation of Spaceport America. Draft EIS at ES-14. For the reasons set out below, the National Trust disagrees with the FAA's interpretation of the Trails Act, and believes that section 4(f) applies to Camino Real in the area of Spaceport America.

A. Camino Real is subject to section 4(f).

Portions of Camino Real within and adjacent to the project area are subject to section 4(f). Under the Transportation Act, the FAA may not use "land of an historic site of national, State, or local significance" without first complying with section 4(f). 49 U.S.C. § 303(c). Camino Real clearly meets this standard because the trail is only one of seventeen national historic trails designated by Congress. Draft EIS at 3-41. Additionally, portions of the trail are eligible for listing in the National Register of Historic Places (National Register), as the FAA determined in the cultural resource analysis for Spaceport America. FAA, Analysis of Potential Effects to Setting 7 (2008) [hereinafter Setting Analysis]. Consequently, the FAA must recognize Camino Real as a section 4(f) property and determine whether Spaceport America will result in its "use."

In the Draft EIS, the FAA argues that section 4(f) does not apply to Camino Real because the Trails Act exempts all but "designated protected trail components, and lands or sites adjacent to historic trails that are on or eligible for the National Register" from section 4(f). Draft EIS at 3-11. The plain language of the Trails Act in no way supports this interpretation. L39-001

In relevant part, the Trails Act reads:

> Except for designated protected components of the trail, no land or site located along a designated national historic trail . . . shall be subject to the provisions of section 4(f) of the Department of Transportation Act (49 U.S.C. 1653(f)) unless such land or site is deemed to be of historical significance under appropriate historical site criteria such as those for the National Register of Historic Places.

16 U.S.C. § 1246(g). "Land" and "sites" located along trails and without independent historic significance, not the trails themselves, are exempt from section 4(f) under this clause. Thus, the FAA erred in applying the exemption to portions of the trail that will experience significant impacts from Spaceport America.

B. The FAA must determine whether Spaceport America will "use" Camino Real.

Because section 4(f) applies to portions of Camino Real within and adjacent to the project area, the FAA must determine whether Spaceport America will "use" them. The FAA's determination must focus not only on the direct, but also the indirect impacts of Spaceport America, and determine whether they will result in a "constructive use" of Camino Real. See Save Our Heritage, Inc. v. Fed. Aviation Admin., 269 F.3d 49, 58 (1st Cir. 2001). Because the FAA failed to recognize that section 4(f) applies to Camino Real, the Draft EIS lacks a determination of whether Spaceport America will "use" any of the significant activities or features of the trail. It is imperative that the FAA make this determination prior to approving the project. L39-002

The FAA must keep in mind the following considerations when it performs the "use" analysis for Camino Real:

- **Spaceport America is a new facility.** Courts have consistently distinguished between transportation projects that involve the development of a new facility and those that expand or

Comment L39. Page 2 of 7.

modify an existing facility. See e.g., Sierra Club, v. U.S. Dep't of Transp., 753 F2d 120, 130 (D.C. Cir. 1985) (applying heightened scrutiny to the FAA's analysis of a new airport under section 4(f)). New facilities receive heightened scrutiny under section 4(f) because affected resources have not "already been used" and thus retain their "prior significance and enjoyment." Id. Here, the transportation project in question involves the construction of a new facility—Spaceport America—within a "mostly undeveloped landscape that . . . retains a substantial amount of natural and cultural integrity. . . ." Draft EIS at 3-39. Additionally, the section of the trail "that runs near the Project site is considered one of the most important remaining resources associated with El Camino Real." Id. at 3-41. Thus, the FAA must evaluate Camino Real in accordance with the heightened scrutiny required by section 4(f).

- ***Setting is a significant feature of Camino Real.*** The features that make a historic site significant are relevant to whether a transportation project will result in a "use." For example, a transportation project may "use" a historic site valued for its setting by introducing noise and air pollution into the atmosphere and restricting site lines without also using a historic site recognized chiefly for its architectural importance. Comms., Inc. v. Busey, 956 F.2d 619, 624 (6th Cir. 1992); see also City of Grapevine v. Dep't of Transp., 17 F3d 1502, 1508 (D.C. Cir. 1994) (noting that situations may exist where "a village preserved specifically in order to convey the atmosphere of rural life" will experience a "use" while a historic structure will not). Here, as the FAA found in the cultural resource analysis for Spaceport America, setting is a "significant historic feature" of Camino Real. Setting Analysis at 7. For the moment, this setting largely retains its cultural integrity, as the Jornada del Muerto remains a "mostly undeveloped landscape. . . ." Draft EIS at 3-39. Consequently, the FAA must take into account the visual and auditory effects of Spaceport America on the Jornada del Muerto—the setting and key feature of Camino Real—during the "use" analysis. L39-002

- ***The FAA's standard noise assessment criterion may not be appropriate for Camino Real.*** The FAA applies a standard noise assessment criterion—DNL 65 db—to determine if a transportation project will "use" protected resources. FAA Order 1050.1E at A-61. Courts have indicated that this standard may be inappropriate where setting is a feature that contributes to the significance of a historic site. City of Grapevine, 17 F.3d at 1508. In City of Grapevine, the D.C. Circuit suggested that because the FAA developed the noise standard for residential properties, "[t]here might well be instances in which [it] . . . would be inadequate to protect the particular values that led to the designation of a site as historic." Id. To highlight this point, the court posed the hypothetical of "a village preserved specifically in order to convey the atmosphere of rural life in an earlier (and presumably a quieter) century." Id. Like the imagined village in City of Grapevine, Congress designated Camino Real to protect a historic resource large portions of which remain notably unaffected by modern development. See Draft EIS at 3-39–40 ("[Camino Real] retains a substantial amount of natural and cultural integrity . . . and suggests the scenery travelers experienced during the 300 years that the road was in use."). Consequently, the burden rests with the FAA to show that the DNL 65 db standard is appropriate for determining whether Spaceport America will "use" the setting of Camino Real.

- ***Section 4(f) applies to the activities associated with Camino Real.*** Section 4(f) requires the FAA to determine if Spaceport America will use the significant activities associated with the trail. Allison v. Dep't of Transp., 908 F2d 1024, 1029 (D.C. Cir. 1990). In Allison, the FAA had relied on noise assessment guidelines for zoos, amusement parks and resorts to assess whether a transportation project would "use" a wildlife refuge. Id. The court rejected this practice because

Comment L39. Page 3 of 7.

the guidelines bore no relationship to "the values typically associated with the use of a wildlife refuge, such as tranquility and the opportunity to observe nature undisturbed by human activity." Id. Like the wildlife refuge at issue in Allison, trail visitors use the Jornada del Muerto to view and experience "a mostly undeveloped landscape. . . ." Draft EIS at 3-39. Use of the area for this activity will likely increase in the coming years because the NPS and BLM are currently establishing interpretive sites at significant points along the trail, including at Yost Escarpment, as provided for in the trail's Comprehensive Management Plan. Visitation may also increase due to BLM's recent acquisition of an easement over a 5.7 mile section of the trail located on state land within and/or adjacent to the project area, which will eventually include a "primitive recreation trail" for hikers and horseback riders. Thus, the FAA must determine whether Spaceport America will "use" the experience of trail visitors in the Jornada del Muerto. In doing so, the FAA must take into account the full range of impacts that visitors may experience from Spaceport America, including any visual and noise impacts as well as vibrations associated with launch and landing events.

- **The FAA must consult with the NPS and BLM concerning the "use" analysis.** Order 1050.1E requires the FAA to consult with the NPS and BLM concerning several aspects of the "use" analysis. First, the FAA must consult with the NPS and BLM on whether Camino Real and the Jornada del Muerto, most of which BLM manages for multiple uses under the Federal Land Policy and Management Act, are currently being used for "historic purposes." Order 1050.1E at A-19–20. Importantly, if these agencies determine that Camino Real or any portion of the Jornada del Muerto is in fact being used for "historic purposes," the FAA must adopt and employ this determination during the "use" analysis. Id. Second, the FAA must consult with "all appropriate Federal, State, and local officials having jurisdiction over the affected section 4(f) resources when determining whether project-related noise impacts would substantially impair the resources." Id. at A-20. The NPS and BLM, along with the New Mexico Commissioner of Public Lands, have jurisdiction over the affected portions of Camino Real. Consequently, the FAA must consult with these entities concerning the noise impacts of Spaceport America. In particular, the FAA should engage the NPS and BLM in a discussion of whether the FAA's standard noise assessment criterion is appropriate for Camino Real and, if not, what the appropriate standard should be. Finally, Order 1050.1E requires the FAA to "consult with the officials having jurisdiction over the section 4(f) property(ies), and other agencies, as necessary." Id. at A-22.

L39-002

Recommendations:

The National Trust provides the following recommendations to assist the FAA in fulfilling its obligations under section 4(f):

- Recognize the portions of Camino Real within the area of potential effects for Spaceport America as protected resources under section 4(f);
- Determine whether Spaceport America will "use" any of the significant features or activities associated with Camino Real, including the trail's setting. In making this determination, the National Trust also recommends that the FAA, in recognition of the "mostly undeveloped landscape [surrounding the trail] that . . . retains a substantial amount of natural and cultural integrity, develop a noise assessment standard for Camino Real lower than the customary DNL 65 db standard and that it do so in consultation with the NPS and BLM;

L39-003

Comment L39. Page 4 of 7.

- Determine if "there are no prudent and feasible alternatives" to the proposed project should the FAA find that Spaceport America will "use" any of the significant features or activities associated with Camino Real;
- Include "all possible planning to minimize harm" to the significant features and activities associated with Camino Real in the record of decision and/or Memorandum of Agreement for Spaceport America; and
- Provide the public and Section 106 consulting parties with a statement describing in detail the determinations made by the FAA for Camino Real under section 4(f) as well as the rationale underlying these determinations.

L39-003

II. The Draft EIS Does Not Comply with the National Environmental Policy Act.

A. The Draft EIS lacks an adequate discussion of cumulative impacts.

The Draft EIS lacks an adequate discussion of the cumulative impacts of Spaceport America. Under NEPA, the FAA must evaluate the cumulative impacts of its major actions. 40 C.F.R § 1508.7. Cumulative impacts include "the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions." Id. Here, the FAA determined that the expansion of Spaceport America beyond what is proposed in the Draft EIS is a reasonably foreseeable action. Draft EIS at ES-4. However, the Draft EIS omits specific information about the nature and scope of the expansion. Consequently, it is difficult to understand how the FAA could conduct a cumulative impacts analysis commensurate with the requirements of NEPA without first obtaining and then utilizing this information.

The lack of specificity in the Draft EIS regarding the build-out scenario for Spaceport America is troubling for three primary reasons. First, the FAA has previously used NEPA documents to provide the public with specific information about the future expansion of other spaceports. For instance, in the environmental assessment for the Oklahoma Spaceport, the FAA devoted an entire section to the description of "potential future activities." FAA, Draft Environmental Assessment for the Oklahoma Spaceport 2-20–21 (2006). Specific activities identified in this section include the development of a facility for manufacturing components of space vehicles and propulsion systems; the construction of a hanger for assembling space vehicles; and the construction of "an administration complex to create an industrial space park complex." Id. at 2-21. It is not immediately apparent why the FAA did not include a similar type of discussion in the Draft EIS for Spaceport America.

L39-004

Second, the FAA references, but does not describe, "future projects" that will take place within the boundaries of Spaceport America. Draft EIS at ES-6, 14. The FAA apparently possesses enough information about these future projects to predict that the "amount of acreage at Spaceport America removed from grazing use" will double. Draft EIS at ES-6. However, the public is left to guess what these projects are and precisely how they will cumulatively impact Camino Real.

Third, Spaceport America embodies the State of New Mexico's concerted effort to position itself as a leader in the emerging field of commercial space travel. If, as enthusiastically predicted by the state, this effort bears fruit, then Spaceport America may eventually stand as a monument to the commercial viability of space travel and will thus attract those with the willingness and ability to capitalize on its success. Already the New Mexico State Land Office has moved to secure land near Truth or Consequences for private manufacturing facilities that

Comment L39. Page 5 of 7.

will support Spaceport America. New Mexico State Land Office, "Land Commissioner Pat Lyons Finalizes Deal to Bring the Motorsport Industry to Sierra County" (April 17, 2008), *available at* http://www.nmstatelands.org/uploads/News/2008/2008_0417Motorplex.pdf (last visited Aug. 18, 2008). Consequently, at this critical juncture, when the FAA still retains complete authority to control and manage the development of Spaceport America, it must provide the public with a complete and detailed recitation of the available information concerning the build-out scenario for Spaceport America. L39-004

B. The Draft EIS overstates the legal significance of the record of decision.

The Draft EIS incorrectly describes the legal significance of issuing the record of decision (ROD) for the Spaceport America EIS. In prior correspondence, the National Trust informed the FAA that Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. § 470f, prohibits the issuance of a launch site license to the New Mexico Spaceport Authority until the process required by Section 106 is complete. Although the Draft EIS recognizes the Section 106 process as one of several "other [applicable] permits and approvals," Draft EIS at 1-5, it also indicates that the construction of Spaceport America will begin "30 days after [sic] ROD." Id. at 2-4. However, as the National Trust previously pointed out to the FAA, construction cannot begin until the FAA completes the Section 106 process by developing a Memorandum of Agreement with the New Mexico State Historic Preservation Officer and other consulting parties. Thus, the FAA must provide a statement to this effect in the Final EIS. L39-005

Recommendations:

The National Trust recommends that the FAA provide the public with specific information about the nature and scope of Spaceport America's expansion in the Final EIS, which should also inform the agency's evaluation of cumulative impacts. Additionally, the FAA must clarify in the Final EIS that construction of Spaceport America cannot begin until both the NEPA and Section 106 processes are complete.

III. Proposed Mitigation Measures for Camino Real.

Section 4(f), NEPA and the NHPA all require the FAA to undertake planning and develop measures to address the significant impacts and adverse effects of Spaceport America on Camino Real. The National Trust offers the following measures for consideration by the FAA, which supplement measures previously provided by the National Trust in various comment letters related to Spaceport America:

- **Periodic moratoria on launch and landing events.** In consultation with the NPS, BLM, El Camino Real Tierra Adentro Trail Association (CARTA) and other interested parties, the FAA should establish periodic moratoria on launch and landing events at Spaceport America. Doing so would not only enhance the experience of trail visitors during these occasions, but would also provide the NPS, BLM and CARTA with periods of quiet inactivity during which to organize or promote special events related to the trail. L39-006

- **Limitation on the use of Spaceport America by conventional aircraft.** The FAA estimates that Spaceport America will receive well over 2,000 conventional flights per year. Draft EIS at 2-35. Limiting these flights to those essential for the safe and efficient operation of Spaceport America, while requiring tourists and customers to access Spaceport America via existing regional airports and the proposed bus system, would help reduce the visual and auditory impacts on Camino Real.

Comment L39. Page 6 of 7.

- **Commitment to no new direct impacts on Camino Real.** The FAA should require that, in future projects related to the expansion of Spaceport America, the State of New Mexico must avoid creating new direct impacts on Camino Real. Doing so would preserve the trail's existing physical integrity and ensure that Spaceport America operations do not prevent or substantially impede trail visitors from utilizing the primitive recreation trail that BLM intends to develop within the project area.

L39-006

- **Revenue sharing.** The State of New Mexico agreed to compensate the owners of private ranches and the New Mexico State Lands Office for the harm that Spaceport America will cause to their property interests in the Jornada del Muerto. In light of the significant impacts that Spaceport America will have on the portions of Camino Real managed by the NPS and BLM, a similar arrangement seems fair and appropriate. A small percentage of revenue generated by Spaceport America could be shared with the NPS and BLM for use on projects related to the protection and interpretation of Camino Real.

IV. Conclusion

The FAA has not met its obligations to plan and provide for the protection of Camino Real through the Draft EIS. Section 4(f) requires the FAA to undertake "all possible planning to minimize harm" to the significant features and activities associated with Camino Real. However, the Draft EIS avoids complying with this requirement by erroneously claiming an exemption under the Trails Act. The Draft EIS also lacks a detailed discussion of the cumulative impacts of expanding Spaceport America, as required by NEPA. In light of the significant impacts that Spaceport America will have on Camino Real, the FAA must make every possible effort to fully comply with section 4(f) and NEPA prior to issuing the ROD.

L39-007

Please contact me at (202) 588-6341 with any questions or concerns regarding these comments. Thank you again for the opportunity to comment on the Draft EIS.

Sincerely,



Ti Hays
Public Lands Counsel

cc: Pat Beckett, El Camino Real de Tierra Adentro Trail Association
Daniel Carey, National Trust for Historic Preservation
Sarah Schlanger, Bureau of Land Management
Katherine Slick, New Mexico Heritage Preservation Division
Mike Taylor, National Park Service
Stacey Zee, Federal Aviation Administration

Comment L39. Page 7 of 7.

Response to comment letter L39:

L39-001

Section 3.2 has been revised to show the FAA's analysis and evaluation of whether a Section 4(f) determination is invoked for the proposed project. The result of the FAA's analysis is that there would be no impact to Section 4(f) resources.

L39-002

Please see response to comment 001 above.

L39-003

Please see response to comment 001 above.

L39-004

The Cumulative Impacts discussion presents the known information for the potential expansion of the facility beyond the five-year term of the Launch Site Operator License; therefore, the FAA has conducted the analysis of cumulative impacts with the best available information.

L39-005

The FAA has developed a Programmatic Agreement pursuant to Section 106 and in consultation with the New Mexico SHPO and consulting parties, which is attached as Appendix P. In agreement with Section 106 of the National Historic Preservation Act, and the regulations implementing the Section 106 process (36 CFR 800), an executed Programmatic Agreement is evidence of the agency's compliance with Section 106, and must be signed prior to issuing the Record of Decision. A statement of the requirement has been added to Section 1.6 and to Section 4.5.1.3. Section 4.5.1.3 already states that consultation with the SHPO must be completed prior to initiating construction activities. The FAA is responsible for ensuring that the undertaking is carried out in accordance with the Programmatic Agreement.

L39-006

Thank you for your comment. These measures will be added for consideration during the consultation process to develop mitigation measures to address adverse effects to El Camino Real.

L39-007

See responses to comments 001 through 004 above.

P. 05

AUTOMATIC COVER SHEET

DATE: AUG-18-2008 MON 10:57 PM

TO:

FAX #: 17039343951

FROM: TOWN OF MESILLA

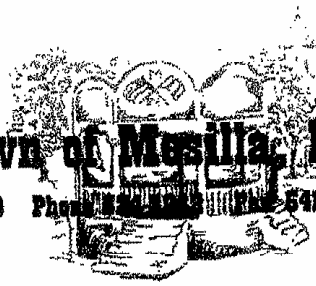
FAX #: 505 541 6327

05 PAGES WERE SENT

(INCLUDING THIS COVER PAGE)

Comment L40. Page 1 of 5

AUG-18-2008 MON 10:56 PM TOWN OF MESILLA FAX NO. 505 541 6327 P. 01



Town of Mesilla, New Mexico

P.O. Box 10 Phone [illegible] Fax 541-6327 Mesilla, NM 88046

Fax

To: Stacy M. Zee, FAA Environmental Specialist
Spaceport America EIS
c/o IFC International
9300 Lee Highway
Fairfax, VA 22031

Fax: (703) 934-3951

Phone:

From: Susan Krueger on behalf of the New Mexico Heritage Preservation Alliance.

# of Pages: four including this one

Date: August 18, 2008

Re:

CC:

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

• Comments:

Stacy, just got out of a late meeting, will fax and e-mail this to you. and many thanks for your hard work and patience.

Susan

If you have any questions, please call Mesilla Town Hall at (505) 524-3262

Comment L40. Page 2 of 5

New Mexico Heritage Preservation Alliance
Susan Krueger, Member of the Board of Directors
c/o P.O. Box 1143
Mesilla, NM 88046

August 18, 2008

Ms. Stacey M. Zee
FAA Environmental Specialist
Spaceport America EIS
c/o ICF International
9300 Lee Highway
Fairfax, VA 22031

Dear Ms. Zee,

Thank you for the opportunity to review the Environmental Impact Statement (EIS) for the proposed Spaceport America facility. Thank you also for allowing the New Mexico Heritage Preservation Alliance (NMHPA) to attend meetings and participate as a consulting party under Section 106.

To begin, the perception of many is that Spaceport America is a *fait accompli*, defined in Webster's Dictionary as "a thing accomplished and presumably irreversible." However, we have been assured many times from 2006 to the present by Spaceport America Officials and others working on behalf of Spaceport America that this is not the case, the cart is not before the horse. We have been assured that the EIS will be conducted in such a manner that should it be determined from the comments on the EIS to be too difficult to mitigate significant environmental consequences to the cultural resources present at the site, the FAA will take Spaceport America back to the drawing board, including reevaluation of its location. Operating under this understanding, our thoughts and comments follow. L40-001

The public has been told that a related use that is reasonably foreseeable within the five year term of the Launch Site Operator License is to have the spaceport facility also operate as an airport, a jetport, facilitating the quick and convenient arrival/departure of spaceport clientele. Spaceport America, then, has the potential within just a few years to have the characteristics and environmental impact of an airport/spaceport facility. To put this into perspective when evaluating the EIS, it would be helpful to include a comparison site, a place people have visited or can visit to see, feel, hear and smell the environmental impact of a similar facility. Some have suggested the Los Angeles International Airport as such a site. Please suggest a comparison site in the final EIS L40-002

Comment L40. Page 3 of 5

document, a place that will provide a third dimension to the impact assessments made on paper. L40-002

As proposed, Spaceport America will occupy 2,270± acres of undeveloped land in the Jornada del Muerto, creating a large and, clearly to an extent, intrusive industrial presence within the historic setting of El Camino Real de Tierra Adentro Trail (hereinafter referred to as "Camino Real"). Looking at Exhibit ES-2, "Summary of Environmental Impacts from the Proposed Action and Alternatives," specifically the Proposed Action column, the cumulative impacts of each of the following resource areas, even though identified as significant, may be inadequately defined. For example:

- land use—will access to BLM land and camping or hiking in the area be limited and if so at what times and for how long? L40-003
- noise—to provide a comparison to assess the noise impact, what are the noises and the noise level present at the site now? L40-004
- visual resources and light emissions—will any structures, including fencing, be built with reflective materials and what kind and how much security lighting will individual Spaceport America launch operators want or need? L40-005
- regional plant and wildlife species—how much of the site will be fenced and what about the quail and the rabbits, will they nest and raise young successfully given the anticipated noise and activity levels from an operational spaceport, what are their typical nesting habitats? L40-006

Regarding "Mitigation Measures and Other Measures," page ES-17, the last two points about developing a state management plan and a cultural resource management plan to protect the Camino Real, these plans need to be in place before FAA licensing. Similarly, a Memorandum of Agreement with the New Mexico State Historic Preservation Officer (SHPO) to reduce impacts to historical, architectural, archaeological and cultural resources needs to be in place prior to FAA licensing rather than prior to commencement of construction. While the activities described throughout the mitigation measures section are commendable, the language is permissive rather than mandatory, and it is not known who will implement which activities and with what resources and within what timeframe. Overall, the section leaves the request to "Tell me How" unanswered nor does it address who will follow up with enforcement if needed. L40-007

The Board of Directors of the NMHPA does not believe that the draft EIS addresses the environmental impact of Spaceport America on the Camino Real Trail and its surrounding landscape sufficiently to preserve the historic qualities and values of the Trail. Therefore we ask that, at this time, the FAA select the "No Action Alternative" and return to the drawing board to reevaluate White Sands Missile Range (WSMR) as the appropriate site for Spaceport America. Admittedly, for many to give serious consideration to locating the spaceport facility on WSMR will involve a willing suspension of disbelief. However, such a move will allow both the retention of the area's advantages of low population density, un-congested airspace, high altitude and excellent weather along with the economic and educational benefits to the Counties supporting the spaceport financially and, importantly, the move will preserve El Camino Real de Tierra Adentro Trail. L40-008

Locating a private commercial spaceport on an existing military base may be a challenge; however, it is neither impossible nor improbable. It is our understanding there are currently private commercial spaceports operating in Florida and California, to mention just two, that are co-located with governmental facilities. Further, on page ES-3 of the draft EIS "Description of Proposed Action," Spaceport America has planned landings for vertical LVs at WSMR. It is also our understanding that these co-location decisions are to some extent political. There have been changes since the 1990's when WSMR was considered and then set aside as a site. Among other things, it is known that NASA will be leaving WSMR by 2010, the Camino Real is now a National Historic Trail and the politics will change in January 2009. L40-009

In closing, we would like to share a thought or two on the significance of the Camino Real. It was designated in 2000 as a National Historic Trail. Then in 2007, given the potential threats to the Trail from the proposed spaceport, it was nominated to both New Mexico's Most Endangered Places List and to America's 11 Most Endangered Historic Places list. The Camino Real is considered by many to be the single largest and most important Spanish Colonial artifact in both New Mexico and the United States and to be one of the most valuable single markers of the Hispanic experience in the southwestern United States. There is space in southern New Mexico for both the Spaceport and the Camino Real, but best situated, we believe, with a degree of separation of 10 miles or so. L40-010

Thank you for your consideration of our comments and position. Please know that should another option be selected or should the FAA decide to go ahead with implementing the two management plans and the MOA mentioned above prior to licensing, NMHPA is willing to work tirelessly with the FAA and Spaceport America to eliminate adverse environmental impacts to the Camino Real Trail.

Sincerely,

Susan Krueger, on behalf of the Board of Directors of the New Mexico Heritage Preservation Alliance.

Comment L40. Page 5 of 5

Response to comment letter L40:

L40-001

Thank you for your comment.

L40-002

The Los Angeles International Airport is not similar to the proposed Spaceport America. The Los Angeles International Airport had 600,666 operations (arrivals and departures) in 2007, an average of 1,645 daily. As described in EIS Section 2.1.3.3, the maximum or conservative estimate for launches is 757 horizontal launches and 125 vertical launches per year, or 2.4 roundtrip launches per day by year 2013. This is considerably less that the traffic seen at a major airport, or even the Albuquerque International Sunport. In addition, the ancillary activity that would go along with a suborbital launch would be very different from that associated with activities occurring at an airport. Unfortunately, due to the unique nature of the proposed operations at Spaceport America, there is no airport that is comparable.

L40-003

As is stated in multiple locations throughout the EIS, by law NMSA cannot block access to BLM-administered lands because they are public lands.

L40-004

The existing noise conditions of the project area are discussed in Section 3.3.

L40-005

The information on the proposed project is provided in Section 2.1.2.

L40-006

Please refer to a discussion of proposed fencing in Section 2.1.2.2. Potential impacts to biological resources are discussed in Section 4.8.

L40-007

The FAA has developed a Programmatic Agreement pursuant to Section 106 and in consultation with the New Mexico SHPO and consulting parties, which is attached as Appendix P. In agreement with Section 106 of the National Historic Preservation Act, and the regulations implementing the Section 106 process (36 CFR 800), an executed Programmatic Agreement is evidence of the agency's compliance with Section 106, and must be signed prior to issuing the

Record of Decision. The FAA is responsible for ensuring that the undertaking is carried out in accordance with the Programmatic Agreement.

L40-008

Thank you for your comment.

L40-009

Thank you for your comment.

L40-010

Thank you for your comment.

COMMENT FORM

Federal Aviation Administration
Comments on the
Spaceport America Draft Environmental Impact Statement

If you would like to receive a copy of the Final Environmental Impact Statement, please include your name and contact information.

Thank you for taking the time to provide us with your comments.

Name: Scott Gardenhire

Would you like to be added to the Mailing List? Yes ☐ No ☐

If yes, you will receive a paper copy of the Executive Summary and a CD-Rom of the Final EIS.

Please provide comments on the Draft EIS by August 18, 2008. Comments should be as specific as possible and address the analysis of potential environmental impacts and the adequacy of the proposed action or merits of alternatives and the mitigation being considered. Reviewers should organize their participation so that it is meaningful and makes the agency aware of the viewer's interests and concerns using quotations and other specific references to the text of the Draft EIS and related documents.

The impact of the spaceport on native wildlife should receive the same attention as the impact on cattle grazing.

L41-001

Comment L41. Page 1 of 1.

Response to comment letter L41:

L41-001

Thank you for your comment.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

AUG 18 2008

Ms. Stacey M. Zee
FAA Environmental Specialist
Spaceport America EIS
c/o ICF International
9300 Lee Highway
Fairfax, VA 22031

Dear Ms. Zee:

In accordance with our responsibilities under Section 309 of the Clean Air Act, the National Environmental Policy Act (NEPA), and the Council on Environmental Quality (CEQ) Regulations for Implementing NEPA, the U.S. Environmental Protection Agency (EPA) Region 6 office in Dallas, Texas, has completed its review of the Draft Environmental Impact Statement (DEIS) for the proposed Spaceport America Commercial Launch Site, Sierra County, New Mexico.

EPA rates the DEIS as "**LO,**" i.e., EPA has "**Lack of Objections**" to the proposed action as described in the DEIS. Our classification will be published in the Federal Register according to our responsibility under Section 309 of the Clean Air Act to inform the public of our views on proposed Federal actions. If you have any questions, please contact Michael Jansky of my staff at 214-665-7451 or by e-mail at jansky.michael@epa.gov.

EPA appreciates the opportunity to review the DEIS. Please send our office two copies of the FEIS when it is sent to the Office of Federal Activities, EPA (Mail Code 2252A), Ariel Rios Building, 1200 Pennsylvania Ave, N.W., Washington, D.C. 20460.

Sincerely yours,

Cathy Gilmore

Cathy Gilmore, Chief
Office of Planning and
Coordination (6EN-XP)

Internet Address (URL) • http://www.epa.gov
Recycled/Recyclable • Printed with Vegetable Oil Based Inks on Recycled Paper (Minimum 25% Postconsumer)

Comment L42. Page 1 of 1.

Response to comment letter L42:

Thank you for your comment.

8/18/08

COMMENT FORM

Federal Aviation Administration
Comments on the
Spaceport America Draft Environmental Impact Statement

If you would like to receive a copy of the Final Environmental Impact Statement, please include your name and contact information.

Thank you for taking the time to provide us with your comments.

Name: Dr. Sanford D. Schemnitz

Would you like to be added to the Mailing List? Yes ☒ **No** ☐

If yes, you will receive a paper copy of the Executive Summary and a CD-Rom of the Final EIS.

Please provide comments on the Draft EIS by August 18, 2008. Comments should be as specific as possible and address the analysis of potential environmental impacts and the adequacy of the proposed action or merits of alternatives and the mitigation being considered. Reviewers should organize their participation so that it is meaningful and makes the agency aware of the viewer's interests and concerns using quotations and other specific references to the text of the Draft EIS and related documents.

As Chairman of SCS (15 clubs - 1500+ members) we strongly support the Terrestrial Wildlife Mitigation Program submitted by the BLM. We believe this plan should be mandatory and not optional and fully funded. Wildlife friendly fencing, essential water developments, erosion control, brush control are essential and would compensate for wildlife habitat losses due to NMSA. Further more these pro-wildlife practices need to be evaluated by intensive wildlife research as proposed. Funding should be funded by NMSA = $138,000 rather than 50% ($69000).

L43-001

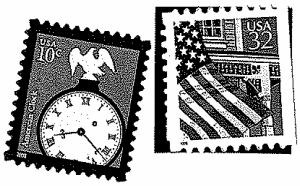
Comment L43. Page 1 of 2.

Comments may be submitted at a public meeting or via fax, e-mail, or mail (see address below) by August 18, 2008:

Fax: (703) 934-3951

E-mail: SpaceportAmericaEIS@icfi.com

(To mail, fold on dotted line and staple at bottom)



Ms. Stacey M. Zee
FAA Environmental Specialist
Spaceport America EIS
c/o ICF International
9300 Lee Highway
Fairfax, VA 22031

Comment L43. Page 2 of 2.

Response to comment letter L43:

L43-001

Thank you for your comment. Section 6.5 has been revised to discuss an updated list of mitigation measures that would be implemented, as well as additional wildlife enhancements that are options for consideration.

N.2 Transcripts of the Proceedings of the Public Hearings

In accordance with NEPA and the implementing regulations of CEQ (40 CFR 1500-1508) the FAA held public hearings during the public review and comment period for the Draft EIS for the Spaceport America Commercial Launch Site. Six public hearings were held, one at 2:00 pm and one at 6:30 pm at each of the following locations:

- August 5, 2008, Alamogordo City Hall, Commission Chambers, Alamogordo, NM
- August 6, 2008, Truth or Consequences Civic Center, Truth or Consequences, NM
- August 7, 2008, Dona Ana County Government Center, Las Cruces, NM

Court reporters were present at each of the six hearings to accurately record the FAA presentations and public comments. Seventy-nine comments were received during the hearings. In this section of the appendix the FAA has reproduced the full transcript text from each hearing. Specific comments within each transcript have been identified to allow for a specific response by the FAA.

Exhibit N-2 provides a summary of the comments received during the hearings for the Draft EIS. The FAA's responses to comments appear in the order the comments are listed in this exhibit, which is in the order received. Individual comments are denoted by a dash and the comment number, i.e., T2-001 is the first comment within hearing transcript T2.

Exhibit N-2
Summary of the Comments Received During the Public Hearings
for the Draft Environmental Impact Statement

Comment Number	Name	Location	Date / Time (MDT)
T2-001	Mr. Clarke	Alamogordo City Hall, Commission Chambers 1376 E. Ninth Street Alamogordo, New Mexico	August 5, 2008 6:30 PM
T2-002	Mr. Clarke	Alamogordo City Hall, Commission Chambers 1376 E. Ninth Street Alamogordo, New Mexico	August 5, 2008 6:30 PM
T3-001	Mr. George Jepson	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-002	Mr. George Jepson	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-003	Mr. Jim Taylor	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-004	Mr. Jim Taylor	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-005	Mr. Jim Taylor	Truth or Consequences Civic Center 400 West 4th Street	August 6, 2008 2:00 PM

Comment Number	Name	Location	Date / Time (MDT)
		Truth or Consequences, New Mexico 87901	
T3-006	Mr. Jim Taylor	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-007	Mr. Jim Taylor	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-008	Mr. Jim Taylor	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-009	Mr. Jim Taylor	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-010	Mr. Jim Taylor	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-011	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-012	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-013	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-014	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-015	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-016	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-017	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-018	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-019	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-020	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-021	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-022	Mr. Jim Taylor	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM

Comment Number	Name	Location	Date / Time (MDT)
T3-023	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-024	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-025	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-026	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-027	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-028	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-029	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-030	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-031	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-032	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-033	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-034	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-035	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-036	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-037	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-038	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-039	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM

Comment Number	Name	Location	Date / Time (MDT)
T3-040	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-041	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-042	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-043	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-044	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-045	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-046	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T3-047	Mr. Gerald Boland	Truth or Consequences Civic Center 400 West 4th Street Truth or Consequences, New Mexico 87901	August 6, 2008 2:00 PM
T5-001	Mr. Klaus Wittern	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-002	Mr. Klaus Wittern	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-003	Mr. Klaus Wittern	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-004	Mr. Klaus Wittern	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-005	Ms. Sandra Tatum	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-006	Ms. Sandra Tatum	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-007	Mr. Angel Montoya	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-008	Mr. Angel Montoya	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-009	Mr. Angel Montoya	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM

Comment Number	Name	Location	Date / Time (MDT)
T5-010	Mr. Bob Tafanelli	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-011	Mr. Bob Tafanelli	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-012	Mr. Bob Tafanelli	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-013	Mr. S. D. Schemnitz	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-014	Mr. S. D. Schemnitz	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-015	Mr. S. D. Schemnitz	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-016	Mr. S. D. Schemnitz	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-017	Mr. John Moen	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-018	Mr. John Moen	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-019	Mr. Rob Hoffman	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-020	Mr. Rob Hoffman	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-021	Mr. Rob Hoffman	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-022	Ms. Tamie Smith	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-023	Ms. Tamie Smith	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-024	Ms. Susan Krueger	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-025	Mr. Klaus Wittern	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM
T5-026	Mr. Klaus Wittern	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 2:00 PM

Comment Number	Name	Location	Date / Time (MDT)
T6-001	Ms. Tamie Smith	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 6:30 PM
T6-002	Ms. Tamie Smith	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 6:30 PM
T6-003	Ms. Sandra Tatum	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 6:30 PM
T6-004	Ms. Sandra Tatum	Dona Ana County Government Center 845 North Motel Boulevard Las Cruces, New Mexico 88007	August 7, 2008 6:30 PM

TRANSCRIPT OF PROCEEDINGS

OF

PUBLIC HEARING

ON

DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPACEPORT AMERICA

SIERRA COUNTY, NEW MEXICO

August 5, 2008
2:00 p.m. MDT
Alamogordo, New Mexico

PARTICIPANTS:

Transcript T1. Page 1 of 17

SCOTT GRAVES, Third-Party Facilitator

STACEY ZEE, FAA Office of Commercial Space Transportation

MR. GRAVES: Good afternoon and welcome, everyone. Before we get started -- I'm going to do a short official welcome here -- but before we get started, if you have one of these cell phones or a Blackberry, if you could switch it to silent or vibrate or something so that it doesn't make a lot of noise. I understand that folks are busy, and if you get a call, you may need to step out.

If you do get a call, feel free to step outside and we can continue without you. And if you're going to do comments, we'll be able to wait around. There is not so many people here that we can't wait

Transcript T1. Page 2 of 17

around to accommodate you if you have to take a phone call or something.

So, welcome to the public hearing on the Federal Aviation Administration Draft Environmental Impact Statement for the proposed Spaceport America commercial launch site in Sierra County, New Mexico. My name is Scott Graves, and I'm a third-party facilitator here to assist the Federal Aviation Administration in running today's public hearing.

The purpose of the meeting this afternoon is to gather comments from you on the proposed -- potential environmental impacts for proposed Spaceport America for the draft environment impact statement. As

part of the meeting, the FAA is going to do a short 20-minute presentation, and then we're going to have a five-minute break to get set up to do the public comment portion of the meeting. And following the meeting, the folks from FAA are going to be available to clarify any of the information that was presented

Transcript T1. Page 3 of 17

here this afternoon.

Also, if you're going to want to do public comments, please sign up at the registration table just outside here. Shannon will be able to -- will help you with that. And there is information available to you out there, as well, a fact sheet and some other information.

So, right now, I guess I'd like to introduce Stacey Zee from the Federal Aviation Administration. She is an environmental specialist here, and go ahead and take it away, Stacey.

MS. ZEE: First off, can everyone see the slides up there? Do you want us to dim the lights? Is that okay? Okay. Thanks.

At Scott mentioned, I'm Stacey Zee. I'm an environmental specialist in the Office of Commercial Space Transportation at FAA. We also have a bunch of other folks from the FAA team. We've got Howard Searight, who is the lead licensing person. We've got

Transcript T1. Page 4 of 17

Myles Hall, who is our general counsel, and Dan Czelusniak, environmental specialist.

We also have folks from NMSA in the back, and some contractor support here. So we are all available afterwards. And here is Lou Gomez from NMSA. We will all be available afterwards if you have any questions.

We're here holding a meeting tonight because the New Mexico Spaceport Authority proposes to develop and operate a commercial launch site in Sierra County called Spaceport America. In order to operate the commercial launch site, NMSA must obtain a launch site operator license from the FAA.

The FAA is responsible for preparing the appropriate environmental documentation under the National Environmental Policy Act. As part of the NEPA process, we're here to provide information on the project and to collect your comments.

The FAA Office of Commercial Space Transportation is responsible for licensing commercial launches, reentries, and the operation of launch and reentry sites. So this slide outlines the launch site

Transcript T1. Page 5 of 17

operator license process. Basically, it's part of the application.

Once we receive an application, the FAA conducts several reviews. This includes a policy review, a launch site location review, a safety review, and environmental review. There is a fact sheet outside that goes over these steps in greater detail. If you have more questions, feel free to ask us after the presentation.

Licensing operation of a launch site is a major federal action and, as such, is subject to requirements of the National Environmental Act, or NEPA. NEPA declares a broad commitment to protect, restore, and enhance the environment, and requires that federal agencies consider the environmental consequences of their proposal.

As part of the environmental review portion of the licensing process, the FAA prepared an EIS to analyze the potential environmental impacts

Transcript T1. Page 6 of 17

associated with the licensing of the propose launch site. And under NEPA, environment includes both physical and biological environment and human relationships to the environment.

So the FAA is the lead federal agency responsible for the preparation of the EIS for the proposed Spaceport America. The FAA also invited various cooperating agencies, based on their expertise or source jurisdiction. The cooperating agencies on

the EIS include the Bureau of Land Management, U.S. Army White Sands Missile Range, the National Park Service, and NASA.

As part of the proposed action, the off-site infrastructure to support Spaceport America will require a BLM right-of-way permit, so BLM will use this EIS as the NEPA documentation for that permit application.

The proposed action that is analyzed in the EIS is for the FAA to issue a launch site operator

Transcript T1. Page 7 of 17

license to the NMSA, and this would allow the state to operate the Spaceport America for suborbital launches of both horizontal and vertical launch vehicles. The proposed action also includes construction of infrastructure to support launch activities.

The proposed Spaceport America project would include construction of infrastructure that would be licensed under the proposed action. All construction would take place on New Mexico State trust lands, with the exception of the improvements to some existing access roads and installation of a power transmission line and fiber-optic cables. This infrastructure that I mentioned is on both state trust, BLM, and privately owned lands.

The Spaceport America boundary would

encompass approximately 26 miles, the total area of land potentially disturbed by construction would be 970 acres, and the total area of the final facility's footprint would be 145 acres.

Transcript T1. Page 8 of 17

Operational activities that were analyzed in the EIS include launch, landing, and recovery of horizontal and vertical launch vehicles, ground-based tests, training, and X-Prize cup events. Any vehicle operations that are not considered amateur activities, as defined by the FAA, would require a separate license or permit from the FAA. These activities would be subject to an evaluation process similar to the launch site operator license. This means a separate environmental and safety review would be required for any other license or permit applications for vehicle operation.

The EIS identifies and considers reasonable alternatives to accomplish the purpose and need of the proposed action. The alternatives analyzed in the EIS include two alternatives and a no-action alternative.

Under alternative one, the FAA would consider issuing a launch site operator license for the operation of a commercial launch site for launches of horizontal launch vehicles. In this scenario, the full

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Transcript T1. Page 9 of 17

vertical lunch complex would not be built.

Under alternative two, the FAA would consider issuing a launch site operator license for operation of the site for vertical launches. In this case the vertical launch complex would be built, but the airfield facilities would be more limited. The slide also talks about alternatives not carried forward for further analysis, which includes alternative suborbital and orbital launch vehicles, alternate sites, and alternative site layouts.

This slide outlines all the impact categories that the FAA analyzed in the draft EIS per the requirements of NEPA and FAA regulations. As you can see, categories include compatible land use, noise, socioeconomics, and many others. Please note that just because something is listed here doesn't mean that a significant impact is expected.

The FAA has determined that the proposed action would impact cultural resources and historic

Transcript T1. Page 10 of 17

properties. Physical damage to historic resources could occur under the proposed action. The proposed action could also result in changes to the setting in which the resources are located. The visual impacts or impacts from noise under the proposed action could impact these historic properties. And when the impacts

to the physical integrity and settings of historic properties from the proposed action are added to those from the past, present, and reasonably foreseeable future actions, it is likely that cumulative impacts would be significant.

The FAA plans to work with cooperating agencies, affected parties, and the State of New Mexico to develop measures to avoid, minimize, or mitigate the adverse effects to historic properties. The FAA is currently developing a draft memorandum of agreement that outlines these mitigation measures.

So now that I have provided an overview of the EIS, this provides a schedule of the process and

Transcript T1. Page 11 of 17

how you can stay involved. The process started back in January 2006, when the FAA published a notice of intent in the Federal Register to prepare the EIS. We held two scoping meetings in February 2006 to collect initial public input. Since that time, the FAA has been developing the draft EIS, which was finalized and distributed to agencies and the public in late June 2008.

On July 3, the Environmental Protection Agency published a notice of availability in the Federal Register, which started the required 45-day comment period. The FAA will develop a final EIS that

addresses the response to comments received during this comment period on the draft EIS.

The FAA anticipates publishing the final EIS in November 2008 and will mail it to the distribution list. So, again, if you want to receive a copy, please sign up at the registration table. And no sooner than 30 days after the final EIS is published,

Transcript T1. Page 12 of 17

the FAA will issue a record of decision for the proposed project, which is expected in December.

Please note that successful completion of the environmental review portion with a record of decision does not guarantee that the FAA will issue a launch site operator license. The project must still meet all FAA safety, risk, and indemnification requirements.

Thanks very much. I will now turn the floor back to Scott Graves.

MR. GRAVES: Thank you, Stacey.

Can I just have a quick show of hands for folks who want to speak on the record here this afternoon? Anybody want to speak on the record?

If you do want to speak on the record, please sign in. If you don't want to speak on the record, but want to submit comments today, you can certainly do that. There is a comment form out here at

the registration desk. There is also some additional

Transcript T1. Page 13 of 17

instructions for how you can submit comments outside of this forum today that are on the fact sheet that's also at the registration desk.

If you want to give comments but not in front of a group, you may certainly give comments to Mr. Eby, over here, who is our court reporter, who is recording all of the proceedings for this afternoon and this evening.

So I guess with that, what we'd like to do is if you want to do comments, we are going to initially ask that you limit your time to three minutes to make sure everybody gets a chance to say their piece. And then if you have additional comments that you'd like to expand on, we can accommodate that, as well, and we'll do that.

At this point, then, we are going take a five-minute break just to get set up. We're going move the projector stand and stuff like that, and then if you can just sign in, we'll go ahead and do comments.

(A recess was taken.)

MR. GRAVES: Just for the record, we're going to move into the general availability session for

Transcript T1. Page 14 of 17

folks from the FAA, so if you have questions feel free to mingle and ask.

Thanks a lot. That concludes our hearing for this afternoon.

(Proceedings concluded at 2:28 p.m.)

Transcript T1. Page 15 of 17

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CERTIFICATE

I, John M. Eby, Jr., Certified Shorthand Reporter in and for the State of New Mexico, do hereby certify that the above and foregoing contains a true and correct record, produced to the best of my ability via machine shorthand and computer-aided transcription, of the proceedings had in this matter.

Certified to on August 12, 2008.

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_____
John M. Eby, Jr.
Certificate No. 167
Expires 12-31-2008
(56680)

Transcript T1. Page 17 of 17

Response to comments in Transcript 1:

No comments were made during this hearing.

TRANSCRIPT OF PROCEEDINGS

OF

PUBLIC HEARING

ON

DRAFT ENVIRONMENTAL IMPACT STATEMENT

SPACEPORT AMERICA

SIERRA COUNTY, NEW MEXICO

August 5, 2008
6:30 p.m. MDT
Alamogordo, New Mexico

PARTICIPANTS:

Transcript T2. Page 1 of 22

SCOTT GRAVES, Third-Party Facilitator

STACEY ZEE, FAA Office of Commercial Space Transportation

MR. GRAVES: Well, good evening and welcome. This is the public hearing for the Federal Aviation Administration Draft Environmental Impact Statement for the proposed spaceport and commercial launch site in Sierra County, New Mexico. My name is Scott Graves, and I'm a third-party facilitator to assist the Federal Aviation Administration in running this public meeting tonight.

The purpose of our meeting is to gather comments from you on potential environmental impacts that were analyzed for the proposed Spaceport America. As a part of the meeting, the FAA will provide a short

County called Spaceport America. In order to operate a commercial launch site, NMSA must obtain a launch site operator license from the FAA. The FAA is responsible for preparing appropriate environmental documentation under the National Environmental Policy Act. As part of the NEPA process, we are here to provide information on the project and collect comments from you.

The FAA Office of Commercial Space Transportation is responsible for licensing commercial launches and reentries and the operation of launch and reentry sites. This slide outlines the launch site operator license process.

The FAA conducts several reviews during a launch site operator license application evaluation before making a determination on a license. The review steps include a policy review, a launch site location review, a safety review, and an environmental review. There is a fact sheet available at the registration table with additional information on this process.

Licensing the operation of a launch site is a major federal action and, as such, is subject to the requirements of the National Environmental Policy Act. NEPA declares a broad commitment to protect, restore, and enhance the environment, and requires that federal agencies consider the environmental consequences of their proposed action.

As part of the environment review portion of the licensing process, the FAA prepared an environmental impact statement to analyze potential environmental impacts associated with licensing the proposed Spaceport America launch site. Under NEPA, the environment includes physical and biological environment and human relationships to the environment.

The FAA is the leading federal agency responsible for the preparation of the EIS for the proposed Spaceport America. The FAA invited cooperating agencies based on their expertise and jurisdiction. The cooperating agencies include Bureau of Land Management, U.S. Army White Sands Missile Range, the National Park Service, and NASA.

Off-site infrastructure to support

Spaceport America will require a BLM right-of-way permit. BLM will use this EIS as the NEPA document for the permit application.

The proposed action that is analyzed in the EIS is for the FAA to issue a launch site operator license to NMSA that would allow the state to operate Spaceport America for suborbital launches of both horizontal and vertical launch vehicles. The proposed action also includes the construction of infrastructure to support launch activities.

The proposed Spaceport America project would include construction of infrastructure to support the operation of a launch site that would be licensed under the proposed action. All construction will take place on New Mexico State trust land, with the exception of improvements to some existing access roads and installation of a power transmission line and fiber-optic cables to the project site.

This infrastructure would cross a mix of

state trust, BLM, and privately owned lands. The proposed Spaceport America boundary would encompass approximately 26 square miles, the total area of land potentially disturbed by construction would be 970 acres, while the total area of the final facility's footprint would be 145 acres.

Operational activities that were analyzed in the EIS include launch, landing, and recovery of horizontal and vertical launch vehicles, ground-based

tests, training, and X Prize Cup events. Any vehicle operations that are not considered amateur activities as defined by the FAA would require a separate license or permit from the FAA. These activities would be subject to an evaluation process similar to the one being undertaken now to evaluate the launch site operator license. This means that a separate environmental and safety review would be required for any other license or permit applications for vehicle operators.

The EIS identifies and considers reasonable alternatives to accomplish the purpose and need of the proposed project. The alternatives analyzed in the EIS include two alternatives and a no-action alternative. Under alternative one, the FAA would consider issuing a launch site operator license for the operation of a commercial launch site for launches of horizontal launch vehicles. In this scenario, the full vertical launch complex would not be built.

Under alternative two, the FAA would consider issuing a launch site operator license for operation of a site for launches of vertical launch vehicles. In this scenario, the vertical launch complex would be built, but the airfield facility would

be more limited than those under the proposed action.

The no-action alternative would be for the FAA to not license the operation of the proposed spaceport. Under the no-action alternative, facilities

to support commercial launch operations would not be built and current amateur launch activities in the area would continue.

Activities not carried forward for further alternatives in the EIS include alternative suborbital and orbital launch vehicles, alternative sites, and alternative site layouts.

This slide outlines impact categories that the FAA analyzed in the draft EIS, per the requirements of NEPA and FAA regulations. Categories include compatible land use, noise, air quality, and others. Please keep in mind that just because an item appears on this list does not mean that a significant impact is expected to be made.

The FAA has determined that the proposed action would impact historic properties. Physical damage to historic resources could occur, and the proposed action could result in changes to the setting in which the resources are located. Visual and noise impacts could also impact these historic properties.

The FAA plans to work with cooperating

agencies, affected parties, and the State of New Mexico to develop measures to avoid, minimize, or mitigate the adverse effects to historic properties. The FAA is also developing a memorandum of agreement that outlines the mitigation measures.

Now that I have provided an overview of the EIS, I'll go through the EIS schedule and how you can remain involved. The EIS process started in January of 2006 when the FAA published a notice of intent in the Federal Register to prepare an EIS. The FAA held scoping meetings in February 2006 to collect initial public input on potential environmental impacts.

Since that time, the FAA has been developing the draft EIS, which was finalized and distributed to agencies and the public in late -- June 2008.

On July 3, the Environmental Protection Agency published a notice of availability of the draft

EIS in the Federal Register. This started the required 45-day public comment period, which ends on August 18. The FAA will develop a final EIS that addresses and responds to comments received on the draft EIS.

The FAA anticipates publishing the final EIS in November 2008 and will mail it to everyone on

the distribution list. No sooner than 30 days after the final EIS is published, the FAA will issue a record of decision on the proposed project. That is expected on occur in December.

Please note that a successful completion of the environmental review process with a record of decision does not guarantee that the FAA will issue a launch site operator license. The project must still meet all FAA safety, risk, and indemnification requirements.

I'm going to turn the floor back over to Scott Graves now, but I will be available afterwards for any questions.

MR. GRAVES: If you would like to provide comments here tonight or wish to be added to the mailing list, please be sure to sign in on the sign-in sheet out in the foyer, out here. And I think just a quick show of hands if you want to make a comment here tonight publicly. Okay.

And I believe it's Mr. Clarke. Is that correct.

MR. CLARKE: That's correct.

MR. GRAVES: We do have a court reporter here, who is going to record all of our comments, so that everything will be on the record and will be down

accurately. And if, after we're all done here, if anybody else wants to make comments and you don't want to make them publicly, you can certainly feel free to speak them directly to our court reporter and he will take that down.

In addition, there is a number of other ways that you can submit comments in addition to

speaking here tonight. And one of the ways is via a comment form that you can get at the registration desk. And there is a few other ways that are listed in the fact sheet there. So you're certainly welcome to submit written comments. All comments need to be submitted to the FAA by Monday, August 18, 2008.

So we're going take just a quick break and turn the machines off here, and then we'll be ready for comments. So just give us a up couple of seconds.

(A recess was taken.)

MR. CLARKE: Can we ask questions?

MR. GRAVES: After we are finished with the public comments, the staff from the FAA will be around. And if you would like to talk to them directly, you may certainly ask questions at that time.

And just another quick point is that any questions you ask here for the record will be addressed in some fashion in the final EIS.

MR. CLARKE: So the questions aren't part

of the comments, right?

MR. GRAVES: If you speak them as part of your comments, certainly they are. But because it's a public hearing, there is no response back during the public hearing. That's basically how the public hearing works. So, if you want to have answers to your questions, you're certainly welcome to talk to any of the staff that are here tonight.

MR. HALL: Just to clarify that, if you ask a question during the comment period and it's on the record, then your question will be responded to in the response-to-comments portion of the final environmental impact statement, and you'll receive a response to your comment whether you submit it in writing or orally.

MR. CLARKE: What if you didn't have an airspace analysis? I'm assuming that's done, but you didn't say anything about it.

MS. ZEE: Let me clarify that for you. Any EIS we have is based on interface, and as part of the licensing, they are required to get an agreement with air traffic to operate.

MR. CLARKE: Is that the agency out of Albuquerque?

MS. ZEE: You can actually answer this.

MR. LANDEENE: We've had meetings with both White Sands who is also supporting Holloman. We had an airspace management meeting. So, yes, air traffic control out of Albuquerque was involved, along with White Sands, who represented Holloman, as well. It's a restricted area that comes over as a call-up zone, actually.

MR. CLARKE: You can can't fly from here to there.

MR. LANDEENE: No.

MR. CLARKE: You can't get from here to over there. There is places and you have to go up through Albuquerque.

MR. LANDEENE: Right.

MR. CLARKE: So it's a no passage area now.

MR. LANDEENE: Yes.
MR. CLARKE: So it won't have much of an effect except for military aircraft to cross.
MR. LANDEENE: The operations will still be held from a military perspective. There is no difference. It's just that we're just one more element that will be managed. So we work with White Sands, who will be running those operations. White Sands

currently does all our tracking and recovery from amateur class launches that are going on, so our relationship is really a symbiotic one in that we're right there.
So if we're entering and using the restricted airspace, we will be coordinating that with White Sands. And according to the public airspace outside of the no-fly zone, then the Albuquerque agency will be the consulted party. So there will be handoffs there that will run the operations.
MR. GRAVES: Mr. Clarke, do you have

formal comments that you'd like to make tonight? Because if you don't, we'll close the formal public hearing part and you're more than welcome to have a conversation, however you'd like the proceed.

MR. CLARKE: I think there is a couple of things that I would like to put on the record.

MR. GRAVES: We'd be happy to take that now.

MR. CLARKE: Are we ready to start?

MR. GRAVES: Sure. Go right ahead.

MR. CLARKE: Let me give a little bit of background. I've been an airport manager for part of my public career. I was accredited AAAE airport manager. One of the things that surprised me in the

photos that you show is that it doesn't seem that there is -- unless there is something that doesn't show here -- there has ever been any examination of having an airport.

T2-001

You have a vertical launch site and a

horizontal launch site, but no one is going to want to truck a multi-million dollar rocket in there. They are going to want to fly it in. You fly your rockets around, and do you think that private guy is going to want to do anything different? And it doesn't seem to have been addressed.

And so, it's almost imperative, to me, that you would be addressing the potential of needing an active runway that could handle something of the class of a 747, which is what you use to shuttle the shuttle around. T2-001

And I'm surprised, and that's why I asked about air traffic control. Because I would assume that people who have that kind of money are not going to want to land in El Paso or Alamogordo or Albuquerque and drive to a site and waste two or three hours of travel time. I don't know if it's been addressed. That's the one thing that when I saw the plans, just it was surprising to me that that was not a part of this thing.

The other thing is that I think it's -- I personally support it very much. I consider this, to me, to be the stepping-stones of the same thing that happened when the Wright Brothers flew their first airplane. We are on the verge of a whole new era of aviation, if you want to call this aviation. And that's going to be very problematic in and of itself because it's aviation until you get into space and then it's totally different.

But the reality is we're entering a new -- what would you say -- a new frontier of what we would normally call the aviation sector. And I think that this is imperative. What happens here will be the same thing probably, to me, that happened with aviation. The place that gets the airport, that has the airport, will get the traffic. The place that gets the traffic will get the people.

And if you don't believe that, every airport I've ever managed, the people came to the airport, not the airport came to the people. We have

T2-002

built every airport in this country away from the people and they migrated to it. Will that be any different here?

You bought enough acreage or you've got enough area to where you can at least control the

environment which you're in, which is sensible. We tried to do that at LAX. We tried to do that at every airport we've ever owned because we don't have enough land.

T2-002

Here, we do. And I would like to see the environmental impact statement you did relative to Cape Canaveral. I mean, realistically, where could you pick another place that had worse weather, is totally surrounded by people, and presents every environmental problem you can think of, from noise on down, and yet it is the launch site of America.

Now, New Mexico offers you an opportunity to get away from all of that. There is nobody within 200 miles of this place except in Truth or

Consequences. You'll change that with this. But for New Mexico, I think it's a great thing, other than the issues that I've raised. And even those aren't significant because a runway is nothing in comparison to what you're doing. And you don't have air traffic problems because there is not much air traffic in that area. T2-002

So, to me, it's a natural. That's my comment.

MR. GRAVES: Thank you. Would anybody else like to make a comment?

Okay. Well, I think we can conclude the formal comment period, then, for this evening. And, as I said earlier, the folks from the Federal Aviation Administration are going to be around, and if you have questions or want to clarify any information, you're more than welcome to do that.

So, thank you for coming tonight, and we'll be around.

(Proceedings concluded at 7:01 p.m.)

CERTIFICATE

I, John M. Eby, Jr., Certified Shorthand Reporter in and for the State of New Mexico, do hereby certify that the above and foregoing contains a true and correct record, produced to the best of my ability via machine shorthand and computer-aided transcription, of the proceedings had in this matter.

Certified to on August 12, 2008.

_____
John M. Eby, Jr.
Certificate No. 167
Expires 12-31-2008
(56680)

Response to comments in Transcript 2:

T2-001

Section 2.1.3.1 describes transporting vertical or horizontal launch vehicles to the Spaceport America site via airplane. Section 2.1.2.2 states that runway design would conform to the criteria for the largest aircraft considered in the FAA Advisory Circular 150/5300-13, *Airport Design.* Exhibit 2-29 presents information on the number of landings expected of Boeing 737-100 and -400 and 757 aircraft. Air traffic control would be managed out of the Albuquerque Air Route Traffic Control Center.

T2-002

Thank you for your comment.

file://P|/Industry-commercial/Spaceport%20America/Public%20Hearings%20and%20Comments/Transcripts/August%206_afternoon_TXT.htm

Public Hearing on the Draft Environmental Impact

Statement for Spaceport America

August 6, 2008

Afternoon Session

Truth or Consequences Civic Center

400 West 4th Street

Truth or Consequences, New Mexico 87901

file://P|/Industry-commercial/Spaceport%20America/P...%20Comments/Transcripts/August%206_afternoon_TXT.htm (1 of 67) [8/22/2008 10:09:20 AM]

Transcript T3. Page 1 of 66

MR. GRAVES: Good afternoon and welcome. This is a public hearing for the Federal Aviation Administration Draft Environmental Impact Statement for the Post Spaceport America Commercial Launch Site here in Sierra County, New Mexico.

My name is Scott Graves, and I'm a third party facilitator to assist the Federal Aviation Administration in running this public hearing today.

The purpose of our hearing is to gather comments from you on the potential environmental impacts that were analyzed for the Post Spaceport America. As part of the meeting this afternoon, the FAA will provide

a short 20-minute presentation, and following that we're going to take public comments. And if you need more information, we do have handouts at the registration table and, also, after the public comment period, the FAA team will be available for general comments or questions to clarify any of the information that you may have heard here in the presentation today.

And so, with that, I'd like to introduce Stacey Zee, an environmental specialist with the FAA.

MS. ZEE: Good afternoon. Thank you all for coming. As Scott mentioned, my name is Stacey Zee. I'm an environmental specialist at the Office of Commercial Space Transportation at FAA -- can you-all hear me all right?

Also, from FAA we have a couple of other folks. We have Myles Hall from our general counsel. James Czelusniak is an environmental specialist, and Howard Searight is our lead licensing person.

We also have some folks from NMSA, from

Transcript T3. Page 3 of 66

our cooperating agency, BLM, and our contractor from TetraTech who wrote the draft EIS. We will all be available over at the poster side to answer questions afterwards.

We're holding the meeting tonight -- or today -- because the New Mexico Spaceport Authority proposes to develop and operate a commercial space launch site in Sierra County called Spaceport America. In order to operate the commercial launch site, NMSA must obtain a launch site operator license from the FAA.

The FAA is responsible for preparing appropriate environmental documentation under the National Environmental Policy Act. As part of the NEPA process, we are here to provide information on the project and collect comments from you.

The FAA office of Commercial Space Transportation is responsible for licensing commercial launches and reentries and the operation of launch and reentry sites. This slide outlines the launch site

operator license process. During its review, the FAA conducts several concurrent reviews before making a determination on the license. The review steps include a policy review, a launch site location review, a safety review and an environmental review.

There's a fact sheet available at the registration table with additional information on the licensing process.

Licensing the operation after launch site is a major federal action, and, as such, is subject to the requirements of the National Environmental Policy Act. NEPA declares a broad commitment to protect, restore and enhance the environment and requires that federal agencies consider the environmental consequences of their actions.

As part of the environmental review portion of the licensing process, the FAA prepared an environmental impact statement to analyze potential environmental impacts associated with licensing the proposed Spaceport America launch site.

Under NEPA, the "environment" includes

the physical and biological environment and human relationships to the environment.

The FAA is the lead Federal agency responsible for the preparation of the EIS for the proposed Spaceport America. The FAA invited cooperating agencies based on their expertise and jurisdiction. The cooperating agencies include the Bureau of Land Management, the National Parks Service, the U.S. Army's White Sands Missile Range and NASA.

Off-site infrastructure to support Spaceport America will require a BLM right-of-way permit. BLM plans to use this EIS as the NEPA document for that permit application. The proposed action that is the -- that is analyzed in the EIS is for the FAA to issue a launch site operator license to NMSA that would allow the State to operate the Spaceport America for suborbital launches of both horizontal and vertical launch vehicles. The Proposed Action also includes the

construction of infrastructure to support launch activities.

The proposed Spaceport America project would include construction of infrastructure to support the operation of the launch site. All construction would take place on New Mexico State Trust Land, with the exception of improvements to some existing access roads, the installation of a power transmission line and fiber optic cables to the project site. This infrastructure would cross a mix of State Trust, BLM and privately-owned land. The proposed Spaceport America boundary would encompass approximately 26 square miles. The total area of land potentially disturbed by the construction would be 970 acres. The total area of the final facilities footprint would be 145 acres.

Operational activities that were analyzed in the EIS include launch, landing and recovery of horizontal and vertical launch vehicles; ground-based tests; training and X Prize Cup events.

Any vehicle operations that are not considered amateur activities as defined by the FAA would require a separate license or permit from the FAA. These activities would be subject to an evaluation process similar to the one being undertaken today to evaluate the launch site operator license. This means that a separate environmental and safety review would be required for any other license or permit for vehicle operations.

The EIS identifies and considers reasonable alternative to accomplish the purpose and need of the proposed project. The alternatives analyzed in the EIS include two Alternatives and the No Action Alternative. Under Alternative 1, the FAA would consider issuing a launch site operator license for the operation of a commercial launch complex -- I'm sorry -- for the launches of horizontal launch vehicles. In this scenario, the full vertical launch complex would not be

built.

Under Alternative 2, the FAA would consider issuing a launch site operator license for the operation of a site for vertical launch vehicles. And in this case, the vertical launch complex would be built, but the airfield facilities would be more limited than those under the Proposed Action.

The No Action Alternative would be for the FAA to not license the operation of the proposed Spaceport America. Under the No Action Alternative, facilities to support commercial launch operations would not be built and current amateur launch activities would continue for the foreseeable future.

Alternatives not carried forward for further analysis in the EIS include alternative suborbital and orbital launch vehicles, alternative sites, and alternative site layouts.

This next slide outlines the impact categories that the FAA analyzed in the Draft EIS, per the requirements of NEPA and FAA regulations. Categories include compatible land use, noise, air quality and many others. Please keep in mind that just

Transcript T3. Page 9 of 66

because an item appears on this list does not mean that a significant impact is expected to that resource.

The FAA has determined that the Proposed Action would impact historic properties. Physical damage to historic resources could occur and the Proposed Action could result in changes to the setting in which the resources are located. Visual and noise impacts could also impact these historic properties. The FAA plans to work with cooperating agencies, affected parties and the State of New Mexico to develop measures to avoid, minimize or mitigate these adverse effects to historic properties. The FAA is also developing a Memorandum of Agreement that outlines mitigation measures.

Now that I've provided an overview of the EIS, I will now discuss the EIS schedule and how you can remain involved in the process. The EIS process started in January 2006 when the FAA published a Notice of

Intent in the Federal Register to prepare an EIS. The FAA held scoping meetings in February 2006 to collect initial public comment on potential environmental impacts from the proposed project. Since that time, the FAA has been developing the Draft EIS, which was finalized and distributed to agencies in the public in late June 2008.

On July 3rd, the Environmental Protection Agency published a Notice of Availability of the Draft EIS in the Federal Register. This started the required 45-day public comment period, which ends on August 18th. The FAA will develop a Final EIS that addresses and responds to comments received on the Draft EIS.

The FAA anticipates publishing the Final EIS in November of 2008 and will mail it to the distribution list. No sooner than 30 days after the Final EIS is published, the FAA will issue a Record of Decision. This is expected to occur in December.

Please note that a successful completion

of the environmental review process with a Record of Decision does not guarantee that the FAA will issue a launch site operator license. The project must still meet all FAA safety, risk and indemnification requirements.

Now I'm going to turn the floor back over to Scott Graves to finish up the process.

MR. GRAVES: Thank you, Stacey. Before we move into our public comment period, I'd like to just go over a few points for us as we get started. First, if you'd like to provide a statement today or if you wish to be added to the EIS mailing list, please sign up at the registration table on one of the sign-in sheets.

We do have a court reporter over here to ensure that we capture your comments accurately, so we'd like you to speak into the microphone if you could so that he can hear what you're saying. If you would like to provide comments but do not wish to speak in front of

an audience, the court reporter will record your comments after everyone else has spoken.

The purpose of this hearing today, as we stated earlier, is to collect your comments and thoughts on the proposed project. Therefore, FAA will not be responding directly to your comments today. FAA will address comments in the final EIS, however.

In addition to providing comments here today, there are a number of other ways that you can provide written comments. You can certainly use a comment form, which is available at the registration desk if you wanted to leave your comments here today. You're also welcome to submit comments by mail, fax or e-mail, and the relevant address information is also on your fact sheet, which is available at the registration table.

So if you want to submit comments and didn't pick up a fact sheet, please do so. Please note also that all comments must be submitted, as Stacy said, by Monday, August 18th, 2008.

And just a couple of reminders. If you plan to provide comments, when you come up to speak,

please speak into the microphone and state your name. And if you're representing an organization, please also state the name of your organization. I've been given the names of at least four people who wish to speak here this afternoon, and if anybody else wishes to speak, please don't hesitate to let us know after I've called the names of the four folks who signed up, and we'll get it in the queue.

After we conclude the public hearing portion of the meeting today, the FAA team will be available to answer questions and talk about the display information over by the posters. So, I'd like to thank you for your time this afternoon, and we look forward to working with you throughout the process.

And with that, I'd like to invite Mr. George Jepson to come on up and offer his comments.

MR. JEPSON: Thank you. And thank you for making the Draft Environmental Impact Statement

available in a timely manner.

My comments are not intended to discourage TetraTech, nor the political leaders who back this Spaceport, nor the local business people who have put a lot of effort into it.

I myself have placed two letters to -- letters to the editor in strong support of the Spaceport. However, I am dismayed at what I found missing. And it not so much addresses the Environmental -- the Environmental Impact Statement as it does the premise upon which the Environmental Impact Statement was developed, and I'll just read what I have.

I wish to comment on the impact of the proposed HVL, horizontal vehicle launch, runway, 10,000-foot long, 200-foot wide. Please note from the outset that I'm a strong supporter of the Spaceport and make the following comments to ensure its chances for an excellent safety record and for its financial success.

Planning and design is always a

compromise, but runway alignment should be out of bounds. There is no evidence in the draft EIS, nor is there any reference to material outside the document that site wind data was collected or used in locating the HVL runway.

This is usually presented in the form of wind direction, speed and duration tables and is generally summarized and presented in the form of a windrose. Such wind data is thought to be essential to runway alignment, location and overall airport design. T3-001

It is always presented in airport Environmental Impact Statements, along with tables and graphics pertaining to expected noise levels. Without incorporating on-site wind data into the airport design calculations, the proposed runway alignment and its location lacks, in my opinion, the most basic technical justification.

I call this attention to the FAA. Each

airport facility that I contacted was astonished that wind data had not been collected. It is likely that all the proposed Spaceport structures are located with regard to the alignment of and, therefore, the location of the HVL runway.

If the location of this runway is critically misaligned, then safety issues arise and predictable scheduling of runway usage is compromised. This affects the finances of operating this whole thing.

T3-001

Upon FAA review, should a different alignment be called for, noise level projections and impacts would have to be done over. Impact on the National Historic Trail would have to be revisited, and the layout of the Spaceport may have to be redesigned, the already compromised National Historic Trail notwithstanding. The National Historic Trail has a major freight railway running down through it, and is crisscrossed several times by County Road, I do believe. So, it's already been violated from its pristine condition. In checking out municipal and international

T3-002

airport runways in the region, I found that the major runways were aligned closer to 270 degrees from true north. Alamogordo at 210, Carrizozo at 240, Deming at 260, Hatch at 290, Las Cruces at 300, Dona Ana at 280, and T or C at 310. These alignments have to do with crosswinds, versed crosswinds that we are subjected to. And their designs have acknowledged this and have respected this. There must be a good reason that they all avoided the nearly 350-degree north/south major runway alignment, as is proposed in the Spaceport. T3-002

Why such a large discrepancy from regional experience and wisdom? The proposed runway is at a 40-degree to 80-degree variance with regional designs.

While this probably won't bother the powerful cargo aircraft and commuter jets, what will it do to the elegant, however well-designed, White Knight? Pilots in the region are not concerned with normal north/south wind patterns. They are predictable and they behave themselves. The problem winds are those

that burst out of east and west, and we had one last night tearing off shingles and tearing down vertical ventilator shafts. They last about 30 minutes, and cause a little bit of mischief. They would deliver violent and sudden crosswinds to the proposed runway alignment.

I do not want to see the White Knight get sandbagged in a 50- to 60-mile per hour burst during the critical takeoff period. I strongly encourage the FAA to ask that a proper wind study be undertaken and that the design layout of the runway and other Spaceport elements be modified if and where necessary before a license is granted. And I thank you for your patience and the opportunity to be heard. And I could leave this material with you.

MR. GRAVES: Thank you, Mr. Jepson.

Next appearing is Mr. Charles Goetz.

MR. GOETZ: I'll do my comments in writing.

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MR. GRAVES: Thank you.

MR. GOETZ: Not at this time.

MR. GRAVES: Next on the list is Mr. William McCord.

MR. McCORD: Make comments later in writing.

MR. GRAVES: Make comments in writing? Certainly.

And then the last person, at least that had signed up on our list, was Mr. Jim Taylor.

MR. TAYLOR: My comments won't be near as kind as the last ones you heard or nearly as scientific, but I thought it was a great presentation.

My first question would be, what assurance does the public have that the current EIS process being handled by TetraTech is not inaccurate and biased due to political pressures applied by politicians, businesses and businesses with vested

T3-003

interests in Spaceport America?

Could this process be compromised and manipulated by corporations, other government agencies, state, county and municipal officials, and other entities or individuals with vested interest in Spaceport America? T3-003

In view of the FAA's poor performance in applying their responsibility to the public, and I'm referring to Airline Safety Inspections, I do have an article here that I won't go into, because it's too long, by Dave Michael in the Dallas Morning News of April 4th this year. Congressional regulators -- in essence, the FAA admitted that they had laid down on the job. T3-004

At any rate, in view of the FAA's poor performance in applying their responsibility to the public, what assurance does the public have that the FAA has resumed fulfilling their public responsibilities and reclaim their integrity?

In view of the FAA's past record, what guarantees does the public have that the FAA is capable and responsible enough to oversee commercial space flight? And that is a new frontier. Where do we get the old rules from? T3-004

Okay. Three, how will volatile rocket fuel and other materials be transported and stored? What will the route of transport be? Will it travel through populated areas? And how will its movement be protected? T3-005

We've asked county officials about infrastructure and who's going to pay for this for a long time. We have yet to get an answer out of any of them. What safety precautions, trained firemen, fire departments, emergency medical personnel, environmental protection specialists, et cetera, will be in place before and during the course of business of Spaceport America? T3-006

And, again, we've questioned Sierra County. We've questioned the State. We don't get a lot of answers on this stuff. Where will the funding for

the training and additional safety personnel listed in Question Number Four come from?

Again, County and State have not provided us with any answers, so maybe the feds would like to answer that.

Okay. Six, the list of hazardous materials and their potential damage, not only to the environment, but the human and animal life is without end. What assurances does the public have that payloads carried by Spaceport America are, in fact, environmentally friendly, nontoxic and will not carry potential damage to the environment or the public? T3-007

Will there be any nuclear materials launched as part of experiment and including payloads, and how will the public be notified of such launches and protected from potential problems associated with those payloads? T3-008

What about noise pollution? I believe the gentleman covered a lot of that, and its affects on T3-009

humans, cattle, habitat? Will there be sonic booms or potential for home damage, broken windows, et cetera? What about your kid out riding the horse, riding barrels, and the sonic boom goes off and the kid gets bucked off and breaks his neck? There's another possibility. We hope it never happens. T3-009

What system is in effect to compensate individual ranchers or businesses that may be negatively affected or even displaced by Spaceport America and their associated operation? There will be a noticeable increase in highway traffic in the vicinity of Spaceport America. We in the immediate area are in a pristine desert environment. Will Spaceport America be responsible for the increased dust, trash, auto emission, and other pollution caused by increases in population and commuters in the area? What will be done to protect local landowners from people pollution? And, basically, that's all of my big questions, and I'm sure T3-010

there will be a thousand more before this process is over. Thank you.

MR. GRAVES: Thank you, Mr. Taylor.

Next on the list is Mr. Gerald Boland.

MR. BOLAND: Thank you. Gerald Boland. I was going to see what happens this afternoon and maybe come back and speak some more tonight, see what comments were made.

First, I want to thank you, you know, the EIS. EIS is always informative. You learn a lot about the area that you're living in, things that you don't have in the regular books and things and I think there was a lot of good -- I have it here, and I'm only halfway through, because I only learned about it 48 hours ago. That's why I'll probably have other things in writing. But I was sort of dismayed that, to be a scientific document, which I think that's what they're supposed to be, there was a lot of ambiguous terminology in this, a lot of mays and mights and shoulds and T3-011

possibles and coulds.

And so, that's disappointing, because there's different areas, especially about wildlife and things like that, that they say that may be disrupted and probably will kind of come back into normal activity. T3-011

Some of my high points that I'm going to take a couple of minutes right now, basically, it didn't seem to recognize the previous mining activity in the Caballos and such as that. It didn't recognize there's been mining here, and I know a lot of people, they don't like mining. There are a lot of small operators, small people like to go out and do treasure hunting and things like that. T3-012

So, I don't think all commercial interests were addressed. And, again, ambiguous terminology. And as far as this whole area historically, I didn't like the fact that part of the fencing of the facility will actually interrupt the trail out there. I agree that BLM wants to have a five-mile visual buffer, and this here puts it right T3-013

against it. So, when people do go out there -- and, yes, it hadn't been used that much because people didn't know about it. Like the Appalachian Trail or other trails that people do know about, I think there might be people who would want to make a 400-mile walk on it sometime. And now that they've learned of it, and to have -- so my point is, the boundaries where they exist, I think they still need to be moved about five miles away from the present trail, and that would still be in the area of the original scoping that they did in the '90s, which was a larger area that was going to be a regional Spaceport. T3-013

So, I think they could shift it a little bit. I also -- see, I always like to use the Constitution, because that's supposed to be the supreme law of the land. And all these regulations and Uniform Commercial Code, all these contracts and stuff were actually trumped by it. And in New Mexico here, in Article 2, Section 5 of the Bill of Rights, it says, The

rights, privileges and immunity civil, political religious guarantees the people of New Mexico by the Treaty of Guadalupe Hidalgo shall be preserved inviolate.

Now, it is like last night we talked about the Motorplex. The problem is, we, as New Mexicans, which had -- they probably had never even heard of us before -- but we, as New Mexicans, are supposed to be able to exercise all the rights that the people normally did, a, how they clothed themselves and how they travel and all that is by treaty.

A treaty is on par with the constitution. So it trumps even congressional acts. And so, I see a lot of things of an oppression coming in, as far as the liberty and capacity of the individual living soul, such as myself.

Now, I agree, if you're going to be a corporation, you're going to be an artificial person, a

Transcript T3. Page 28 of 66

legal entity, you can be regulated. But I didn't see any differentiation of that. So, I'd recommend that you, basically, say that in this EIS report and in this 26-mile boundary -- and, again, especially because of the trail and such, that you are now made aware. I'm giving you -- making you aware that in New Mexico that there's a treaty that allows the people to basically -- as all the freedoms that were guaranteed since the 1840s, we have the right to claim, and I do. Okay? T3-014

So as far as in this EIS report, should there be actually accesses maybe disturbed or recreation or just doing things down there? I can maybe see that -- a temporary thing, if there's, like, a launch, which will get to what I want to be saying about T3-015

launches, too. You know, this is a courting project.

It all sounded great when Sir Richard, basically -- and entrepreneurs wanted to talk about maybe putting people in space. It is just like the motorplex. It all started with it just being a track,

but it's grown to outside of its actual mission or what they dangled the carrot with.

I don't want military payloads of unknown origin in this area. We have a very pristine area. We have a beautiful lake, we have mountains. If you go outside, you won't find much DB, if you go out of town a little bit. It is very quiet. So, when it talks about having decibel levels like an urban level, we don't have decibel levels of an urban level here. T3-016

We have lots of tranquility. As Mr. Taylor just said, you know, it's the sonic booms and things. Initially, I just want to say if it's not no action -- actually, as it is written I want no action. But if it's actually the comments I have -- now, what I probably have tonight and what I'll give in writing are done, I would probably go eliminating it to a vertical launch site and let us see how we respond to that, okay? Because at least those sonic booms, as it says, would be away from the Earth. T3-017 T3-018

But instead of actually, you know, let's

still court this idea. We don't want to marry it long term. I'm glad that the license is only for five years. I'd really like to have the county and the state not go more than 10 years on any kind of a thing. Right now, it is 25 years with 25 years can be renewed.

I think we ought to see if we can acclimate to this. We ought to see if it is really going to disturb the tranquility around here and if there's going to be a bunch of things in the air all the time and noises. I mean, we already do the chem trails. And people laugh when you talk about chem trails, but if any of you have ever seen what looks like con trails, in fact, they are lower altitude and they stay there all day. This is aerosoling by the Department of Energy. We finally found out. They are putting aluminum and other toxins in the air, which actually contributes to disease.

T3-019

T3-020

And I also have the things I'll be presenting tonight. You didn't go into all the aerosol -- all the aerosol of the jet fuel and such.

All the chemicals. You've only stayed, basically, with dust and a few particulate matter and some of the things that might be with the rocket fuels. But there's lots of chemicals, and if you just get an OSHA thing and go through all the things, you'll see all the different carcinogens, mutagens and things like that. T3-020

So the Constitution, it prevails here. So I want to see the EIS incorporate the fact that we New Mexicans, who basically have the right -- not because it's in the Constitution, but because it's supposed to protected by the Constitution. We don't get any rights from the Constitution. Our rights come from our creator, and the only reason government came into place, in position, was recognizing that.

And so, I want you to recognize Article 2, Section 5 of the New Mexico Constitution. I want you to recognize Article 2, Section 23 of the New Mexico Constitution, which basically parallels Article 9 of the

Bill of Rights. And so, for all this type of jurisdiction, making a district out there, even the state land office, I will tell you is trumped by this. And things that are repugnant to the Constitution are null and void in my eyes. Okay?

So, I'm for this if it stays as an entrepreneur thing, which is what Sir Richard, basically, was promoting in the first place. But as far as becoming some kind of a nuisance to where it's carrying other payloads and becomes militarized, and they're doing something besides suborbital or actually going to do other things, that's beyond the scope of T3-021

what this community was presented, you know?

We don't mind having the motorplex if it is a dirt racetrack. We don't mind having entrepreneurs trying to figure out new ways to have launch vehicles, because NASA really slowed things down. It is the individual that always makes inventions and does things. We want to be that kind of experimentation, but as far

as becoming some kind of a mega complex, where the military gets involved and all that, that will not be in the character of this community.

And so, I'll retain the rest of my -- give somebody else an opportunity to speak, because I have lots of things I -- I'm going point by point through your EIS. And I thank you for your time.

MR. GRAVES: Thank you, Mr. Boland. Is there anyone else who would like to speak this afternoon? If I could see a hand if you're interested in speaking. Yes, sir?

MR. LUMUS: My name is Bill Lumus. I am from here in Sierra County. I live in Elephant Butte, and I work with the Council of Governments. I work for the Council of Governments, and I also work for the Council -- the Regional Planning Office and I am also a member of the Spaceport Authority.

I believe in this process. I know this

isn't a specific EIS direct statement, but I want to say as a native New Mexican, I think we as a group have voted in this area, and I think we in this area can uphold that Constitution as a majority rule, as what the Constitution covers.

The other thing I guess I want to say is that I'm very passionate about this undertaking. I've been at it since back in the '90s, and I also want to say that environmentally, I believe that we are actually doing more to protect that area out there in a long-term situation by putting this in and tying it to the Camino Real than having it just wide open where people can trample all over it.

I think we are actually isolating and working with the environment and working with the wildlife out there to place it in a place where they can't be affected by the public. So, I think the environmental impact to the animal life and the cultural findings out there will actually be in a better position by this project. Thank you.

MR. GRAVES: Thank you, Mr. Lumus. Are there any other people who wish to speak this afternoon?

Going once.

MR. TAYLOR: I'd like to add a short comment.

MR. GRAVES: You want to come up and speak again, sir? State your name again for the record.

MR. TAYLOR: Jim Taylor. One thing I meant to mention a while ago, the EIS, you guys get that in the newspaper, something about minerals or mineral rights? There wasn't any oil or gas or the hot springs 15 miles north of the Spaceport location.

Anyway, this newspaper article, as a matter of curiosity, and this would be a question to every politician here, state official, and something for the FAA to look at, why last -- oh, gosh, this last winter, early spring, there was oil and gas leases on Rod Hill's state land at the base of the Caballo, and strangely enough and quite conveniently in a time frame the state canceled bidding on these leases and negated

T3-022

them.

So, if there's no oil or gas or interest, why were the oil and gas leases even out there? So, it just seems, from a layman's point of view, it is pretty convenient to come in and do that like our state land office has joined some of the rest of the local politicians. Thank you. T3-022

MR. GRAVES: Thank you, Mr. Taylor. Is there anybody else that hasn't spoken yet that would like to speak? Mr. Boland?

MR. BOLAND: If anybody wants to have me shut up, just raise your hand, and I'll give you time to speak. Is that fair?

MR. GRAVES: Certainly.

MR. BOLAND: You know, when this project started, they gave us a lot of hyperbole, saying there would be 6,000 jobs. And, of course, if you look in the EIS, they come back to Earth, and it is about 300 maybe. And -- your name Bill? Yeah, I understand that -- I've T3-023

heard through the grapevine that they wanted to outsource the construction to KB&R, and that you -- I'm thanking you -- said you wanted to have local jobs, be more local jobs.

So, this man did -- they tried, like, a Halliburton, KBR-type of getting it to be done, which really wouldn't affect us here. It would be transporters coming in. So I want to thank you if that's true, what I heard that you said that the jobs -- they promised they'd be local. And so, we want to see it that way. Even for the fewer jobs than they actually had said when they said 6,000 when they were promoting it.

T3-023

And wind -- let's talk about wind. I mean, the first gentleman talked about the air strip. You know, most of our wind is south by southwest here, as you-all know. We have -- a lot of people think, even though we have a beautiful area here, wind is the thing

T3-024

that we deal with every day.

And so, most of it is from the south, southwest. So most of the particles and stuff will actually be coming towards T or C. The EIS says the average wind speed is about eight miles an hour or thereabouts. So, we're going to have the fallout of the exhaust coming right toward our town because most of the wind is south by southwest coming toward us. T3-024

You know, again, when it talks about ambiguity of some of the words here and recreation or -- they have things say there's very little impact on this or that. But that's not from us living here. I mean, maybe you were in a very populated area and might not see it. T3-025

What gets me is the fact that there have been different habitats and wildlife refuges right next to this, and people want to have a remote experience. You wouldn't want the Empire State Building just to be across the street here, would you? So, even if it is a small percentage of the land, of the total 26-mile area, that they're going to be actually developing on, it's in a pristine place. It's right on the trail. T3-026

And I don't like the fact that they're thinking of fencing a lot of this off. And I don't know what kind of security they're going to have there. The thing is, again, we're supposed to have access. We're supposed to be able to enjoy our community here, and just because there might be a couple of troublemakers doesn't mean you throw the baby out with the bath water.

So, I have a thing that I'll be presenting tonight which shows all the chemicals that come out of jet fuels and such and all the diseases that can be caused from it, which, like I say, they didn't put in here aerosols of the jet craft, especially if you do a horizontal thing which means there will be regular jet craft, and then they'll ignite rockets at a higher elevation.

According to your poster over there, with those VH lifts, you're going to have lots of flights all the time. And so, like I say, we ought to let this be

T3-026

T3-027

T3-028

slow. Let's see if we went to marry this thing. I like the idea of the amateur. I like the idea of the entrepreneur thing, the vertical -- at maximum vertical.

Of course, right now I'm not totally happy with this. If I'm ever happy with this, vertical is where we should start, do that for five years and see how it works, see if it actually is a go. And then we can develop it. Don't give everything at once like they did with this motorplex, 8,000-acres. Now, I have actually different things here.

I have each section of your thing, which I'm going to do tonight, depending on the people. Our scenic quality here like Section 3.44.2, you know, a scenic quality should match the trail. So, I say keep the five-mile radius. Don't do the fence.

Your 3.5.4.6, the cultural integrity of the remoteness should remain. On Page 34 it talked about development along the road included -- they acknowledged that mining, ranching, farming and milling

T3-029

was what brought this about. But, again, to try to -- the fact that you totally omitted the miners, this really gets me, because a lot of the people go to the Caballos, people that do things themselves. The fact that mining wasn't recognized shows -- seems to me there's a bias on this. They don't want mining -- as Mr. Taylor said, there's energy here.

The fact that they're even going to get payments in lieu of developing mineral rights because, you know, ladies and gentlemen, Sierra County has lots of minerals. The mines in Hillsboro and such as that that were silver mines and such, the only reason they went down in the 1880s was not because of the lack of resources. They quit monetizing silver as money at the time.

T3-029

Mining is where you get all your things. Now, there's people -- you know, there's been -- when you have big corporations do things, there's lots of

abuses, and that's because the government licensed these big corporations to make those abuses. But the small miner, he doesn't really make much of a footprint, okay?

So, I want to see more recognition of mining, the history of mining and access to money. Because a lot of people go out in that area, and it's Caballos and such. There's prospectors and treasure hunters. And I don't see anything addressing that and ensuring that that will continue to happen. T3-029

Even if there isn't any active mine claims, as far as people know right now, doesn't mean that we don't want that shut off. This was a mining district before. We want all those laws and the protections I told you about in Article 2, Section 5 of the New Mexico Constitution to prevail. Now, I'll go ahead and shut up a while and see if somebody else wants to talk.

MR. GRAVES: Are there any more speakers here this afternoon?

MR. GOETZ: I have a question. I don't want to speak, but I have a short question.

MR. GRAVES: We're going to take questions after the formal comment period is over. Certainly, we can do that, and the FAA team will move over to the posters there and we can talk then.

Any other commenters this afternoon? Okay. Well, I think probably the best thing to do is wrap up the comment period for this afternoon. And, again, we will be here this evening, and we'll have another comment period. And we'll start at 6:30, and the FAA team will be over by the posters over here in just a few minutes if you want to ask questions or clarify any of the information that you have read in the draft EIS or see on the posters or anything like that. So thank you for your participation, and we'll move on.

MR. BOLAND: One more thing. One more comment. They have the date wrong, I think. I found that the Federal Register did not publish this notice until July 9th, which really should extend the comment period until August 22nd or 23rd. They're going to look

T3-030

into that. It is the Federal Register that the people get notice, not just their own, maybe, register as an agency.

So, even though they have told you August 18th, I need to get somebody to clarify and give an actuality on that. The Federal Register should have

T3-030

it to where we have a comment period till the 22nd or the 23rd of August, being that it wasn't published until July 9th in the Federal Register.

MR. GRAVES: Okay. Thank you, and we are concluded.

(These are continuing comments by Mr. Boland.)

MR. BOLAND: Okay, let's look at Page ES-3. It talks about public involvement. You know, two scoping meetings were held in February 2006. The thing is, is that the first time they had the meeting they only allowed three-minute comments.

T3-031

And can you imagine how little detail can

be brought out about such a large project -- possible large project with just three minutes. And then because such, nobody really had this item to kind of work from. A lot of the comments had been sketchy, and they were consolidated in here. But I don't think they fully represented -- because I know some of the people who did make comments that are listed in the B index, I guess. These names, I know some of these names, and I know what they said. And they really were shortened on the detail that was presented. T3-031

So, as it is right now, because of the omissions of the mining and other things, I'm for no action as this draft EIS presented itself. I hope to be moved to accepting a vertical launch only to see how we do, basically, as a community to this.

I'm halfway through this, so I know that they have addressed some of the comments that have already been made today about noise and all that and

that the distance and the loss of DB will be reduced because of distance and such. But we really have mostly quiet time here all the time. So, this is an interval of two minutes or something like that, especially if it's every day or whatever else, it is actually going to change things.

And on the soil out there, a lot of the soil here is -- soil is sandy and gravelly. And it's very permeable to things that could enter the water table. And we have little aquifers around here, and -- but we have very good ground water, but it is sometimes only 30 feet from the surface. T3-032

And when you think of -- most governmental sites seem to be the highest polluters, whether it's Los Alamos or Area 51 or wherever you go, a lot of the toxins and stuff that otherwise industry and regular society can't do, those in government seem to do. T3-033

I mean, people probably don't know a lot

of nerve gas and stuff was dumped in the oceans years ago. So, they're really not trustworthy. Even though there's regulations written, a lot of times we see things really aren't enforced too well, or because it is somewhat self -- kind of like an SRO, self-regulating organization, a lot of things can be skirted.

And right now, they had some dairies here that have already polluted the ground water. And I was able to show that 50 percent of the dairies failed, so I let the New Mexico Environmental Department realize that they -- obviously, their rules and regulations with a 50 percent failure of all dairies in that they actually polluted the ground water were -- wasn't any protection to the people here at all. T3-033

So even if you have regulations, that's not a sure bet against protecting it. So let's look at some of the stuff that you have here on noise.

Again, if you have a lot of flights and you're doing sonic booms or if it's like all day long there's a propeller airplane flying over at a thousand feet, that would be unacceptable. So we want to make T3-034

sure -- this is why I want vertical launches.

I think what should be required after that is to actually have, maybe, the Air Force create sonic booms to see what -- how they would affect us here. Actually, I mean, I don't want a license for them to be horizontal. Like I say, I want to stay with vertical, but by the time -- if vertical works and they want to go to a horizontal way of doing things, one of the requirements should be that they actually manufacturer sonic booms out there so that we can actually see how they would affect us here. Okay.

T3-034

And the historical, archeological and cultural resources, again, a lot of people do rockhounding, they -- and they like the remoteness of it. We're a small community, but we like our remoteness. And the thing is, some of these projects could really disturb us. And I think even though they put the carrot in front of everybody's eyes, I'd like to see that the FAA, again, restrict the licensing of

T3-035

aircraft and the type of payloads so where we can gradually see if this is for us so that we're not -- so that the investors aren't fully committed, so we're not actually having them lose money. But that we can see if this is and that will really work for our community, rather than just looking at the monetary aspect of it. T3-035

Again, our air quality, I have an item here, which you can note what I'm talking about. It is just called, Did you ever wonder what blows out of a jet airplane. Here is what you'll find in the air around an airport. And I'm not going to go through all this. T3-036 This is how you can reference it, though, that I'm going to give this for the FAA to consider.

But it goes through all the chemicals, then it shows the different kinds of diseases. And on the back, it gives the references for the information.

I'm presenting to you, the court reporter, this document that we'll call it Exhibit 1

with the text as the header, and it says, Did you ever wonder what blows out of a jet airplane? Here is what you'll find in the air around an airport.

Air quality is important, and I believe it'll be more degregated, rather than by dust and all that. We can handle dust and things like that. It's the chemicals and the diseases that come from those chemicals. T3-036

They make a big deal on here about that there isn't any scenic rivers and such as that in the area. The fact is, all this stuff that goes up's got to come down, and it's going to affect, because it's so close to the Rio Grande and close to ranchers and farming, there can be no doubt that some of the toxins from the fuel will become part of the food chain and maybe affect the fish. T3-037

Think of the MSTB that was done as -- used as an oxygenator on gasoline. Now, we find it in most ground water throughout the country. So, see,

mistakes like that -- and how do you -- you know, mediation isn't correcting it. It is like the dairies, once you pollute the ground water, mediation may mean you don't contribute anymore to it, that doesn't mean it's going to get back to the pristine clarity and wholesomeness that it once was. So we don't really want things to be mediated; we don't want them to happen in the first place. T3-037

Again, hazardous material that's brought up here is the possible things that might be stored, as far as the fuel and such as that that I want -- I want a more definite understanding of what -- if it goes beyond a vertical launch, if it actually goes beyond and does become militarized, I want the final draft of the EIS either to decline anything further, as far as toxics. Or if they are fully disclosed, what would be out there, and make sure that there's ways to put it through a long process. Because we have a pristine place here. You know, I don't know, the point is, we really -- this is a very pristine place, and it's rural. And we haven't had much activity. That's why everything is clean. T3-038

I noticed that they didn't have any air monitors because they don't believe it's -- well, because it's already clean. There's nothing really to monitor. Well, I think that they should put monitors during this initial phase if it goes through with your five-year license. Definitely want air monitors put up. T3-038

I didn't actually put a location on this comment in the book. Basically, it talked about health and safety and that the environmental health, basically, would not disproportionately affect children.

Well, you know, when you say -- when somebody says, Doesn't have any significant impact, they don't tell you what those numbers are that they're saying a significant impact would be.

Now, they may have noted some other document or some government reference point which isn't in here or which would take a long time to discover. But any impact on children or any impact on adults is an impact, and even to look at the wildlife out there as

being separate from us, humans, you know, we don't want to be disturbed either. We like our quiet time. Like I say, this is a very quiet community.

The biggest thing, basically, was where the fence was. That the finance and the part of this project is actually going to omit part of the trail. And they even admit that part of this historical district, some of it's fully incorporated in here. I

mean, I've seen golden eagles. I've seen falcons, and this is part of their habitat. And they acknowledge that there's some maybe here, but they use the verbiage, Well, it could disturb them. No, it will disturb them. Especially if it's, like, 150 DB somewhere, right? T3-039

So, the fact is, they put this in a place that's so close to the trail, and I actually do see and believe that people someday pretty soon, now that this has been made more aware of, are going to want to hike the 400 miles, just as they do the Appalachian Trail or

something like that.

T3-039

Okay. 3121 says about local services again. They had in here that most of the support services and staffing would probably -- for the construction and operation would come from Dona Ana County, because in this report they, basically, said that the county did not have its own planning -- comprehensive plan. Well, they have passed one, so that is obsolete in this EIS.

So, the county does have now a comprehensive plan. It isn't too intrusive, which is good, but they got something on the paper. And so, it looked to me like the bias in here was the fact that they wanted to get more things from Dona Ana County.

As I said, that guy named Bill, he did stand up and say that we wanted to keep a lot of it right here. And so, I think that's a misnomer and false, that they should look to Dona Ana County for the support services and the staffing and construction

operation.

I want great emphasis put on that national historic trial to maintain a five-mile view. So that's why I say they ought to just move the Spaceport over. Still within the regular thing that was done in the '90s, as it were, '95-'96 for Southwest Regional Spaceport, which was almost double the size that they looked at environmentally. T3-040

Okay. On 3.4.22, on Page 3-21, talks about the NEPA requirements. I notice that they basically said that since this is on state and private land, that some NEPA and different BLM type of perimeters for the trail don't apply.

Well, the fact is NEPA is supposed to make sure that esthetic planning surrounding such occurs. And so, again, having the trail right next to a fence, right next to where they're launching, and especially since the BLM has been working with the wildlife refuge over there, not just with plants and things, but like I say, with falcons, eagles and things like that. And, yet, here all this time, they actually T3-041

were forbidding people to do some mining on the premise that, you know, now and then exploding -- doing some dynamite might -- explosions would actually disrupt and affect the wildlife in the air, which would be intermittent. Here they're going to have something that would be 24/7, or at least half a day -- 12 hours a day every day. So it seems like BLM and them who heretofore was restricting mining under the premise that it would disturb wildlife have somehow got a blind eye because of money and whatever, some kind of bias on this. T3-041

So I want the BRM Classification Class II to remain in effect for Spaceport America. Otherwise, I believe it'll be a nuisance to the people who want to experience the remoteness of the trail.

This Almendrol Historic District will be cut. Again, we must move the site. We want that trail, all these different historical, archeological and Indian remnants to be as they are. T3-042

They did bring up that aluminum metal and T3-043

aluminum oxide is part of the propellants for rockets, and it is toxic. And, again, since we get most our wind from the south, southwest, and because you have different temperatures of the masses of the air, a lot of times it really comes down and we get 50- and 60-mile-an-hour winds here. It's because of the

conversion between the heat at different -- you know, from the ground and what's in the sky. So what's in the sky makes its way down into our ground level, okay? T3-043

So we're going to be exposed to this. This is why they really have to have monitors up. This gives me an opportunity to ask the FAA why they've gone along with the DOE in acting like they don't know that there's been aerosol spraying around the world.

My understanding is, is that the premise was to put aluminum oxide in the air to deflect sunlight on the premise that it would affect weather modification, which would affect global warming. But

the fact is, people have gone up in the wake of those aircraft and found lots of toxins. And there is even nanotechnology being used in the aerosols that give people upper respiratory diseases and symptoms, as if they have the flu or pneumonia when, in fact, it's the aerosols from these planes. We once thought it was the Luftwaffe out of Hoffman [sic], the Germans doing it, but now I've noticed it's Department of Energy. And just doing a Google search called chem trails, you'll learn all about this subject. And you'll see that these are not regular condensation trails that otherwise disappear within a matter of a minute or less in the wake of the air current. T3-043

So, like I said, on 3.6.4.3, I want the New Mexico Environmental Department to operate air monitors. On 4.1.1, on Page 4-3, I want access. I don't want restrictions to that area. They have it here that they might -- I want to know what they're talking about. That's why I'll ask the question. It says, In

some cases, access would be restricted. I want a definition of what "some cases" are, and I want, specifically, to know what would be restricted and why, and even if it's restricted under safety because of some kind of launch, that they make it available as it currently is now. So I want to know them to more specifically describe what they mean and where they mean and how they mean, that access would be restricted.

On Operations, 4.11.2, again, I applaud the FAA that they're only doing a five-year license. I'm glad it's no longer than that so we can see if this is good. And, like I said, as it is right now, the best -- if EIS is redrafted incorporating some of these things, I only want to go as far as a vertical launch.

On noise, they made the statement that the animals could -- could be disturbed. That's what I went back to initially. There's a lot of ambiguity. They had a lot of shoulds, coulds, maybes, possiblies, which doesn't show that they have a definitive answer.

That means they're winging it. This should be a very scientific document.

On 4.3.12 it says that we can expect 83 DB, as if a plane was a thousand feet. Well, that doesn't plane -- a propeller plane flying over at a thousand feet does disturb the tranquility of this community. You would definitely look up, because it's not a normal event. That's all I'm going to give you for now, but I thank you for your time. T3-044

This is under mitigation, which is Number 6 on Page 6-1.

And it, basically, talks about how they're going to mitigate things that were discussed in Chapter 4. But what got me was at 6.2, it says, "Adverse effects to historic properties, including physical impact changes to setting in visual and audible effects would occur as a result of the construction and operation of Spaceport America. T3-045

Prior to construction, an MOA would be developed for signature by FAA, NMSA, SHPO, ACHP and other consulting parties, which would document the

measures to be completed.

So my comment is, I want that known before this approval even happens, the draft. I don't want them to be coming afterwards, after the thing is approved, and then coming something that we would have to swallow because we put so much into it already that they'll fill it and have to go forward with it. T3-045

So I think the MOA should be developed and the signatures sought and received on all -- what they would do as adverse effects before they even start construction, but not just before they start construction, but before they -- I want it in the final draft of this EIS.

And as far as H2.13, which has to do with the road between Engel and Rincon, it says that New Mexico Department of Transportation is going to pave that by 2010.

I think the investors, since this is

supposed to be pretty much a private project, that I believe that private parties, such as Sir Richard, should be the ones to pay the paved road, and it should be paved before they even think of doing this construction out there so that not only do they have a good road to use, which is mostly the reason for it. Because, otherwise, they're going to have a problem with traffic and even the capacity of the gravel roads and stuff out there.

The roads that's going into this need to be paved before they even consider doing construction. T3-046

And I think it should be done by the private parties. Now, this is going to sound really bad, but it's true, and I'd like to have this in the final draft, that as good as the intentions are, I want my fellow Americans to know that when you marry government and corporations, that is by definition fascism. And we have lost a lot of ground on our freedoms in this country, and that's why I'm sticking with the Constitution.

We are guaranteed a republican form of, which means government can only do what we can do. So if my creator didn't give me the capacity to do what I can, I can't give you the capacity to do it as an agency.

The problem with these marriages and these type of contracts where you have the public sector and what they call the public sector and the private sector getting together, that is the definition of fascism, and we really don't want fascism. We already see it with different acts, like the Patriot Act, and we see it with surveillance and all these other things that have evolved since 911.

So, me, I would like to see us go back to where people actually take risks with their capital and if they get rewarded, well, that's wonderful. But if they lose, then they -- so that is my comment that this

and a lot of projects are tending to appear to be

fascist. And I know it's a terrible word, because nobody likes to think of themselves as wearing a uniform, but our culture is becoming -- how -- autocratic. And we need to get back to liberty, freedom and innovation, which is why I put the part -- I put forward in this, is the innovation. If it's garage guys coming up with new ideas and stuff, that is what America was built on. So that's really it on this.

They should pave the roads and the MOA memorandum on adverse affect should be published before they even allow this thing to go forward. T3-047

(Proceedings concluded at 6:32 p.m.)

CERTIFICATE

I, Breck C. Record, Certified Shorthand Reporter in and for the State of Texas, do hereby certify that the above and foregoing contains a true and correct record, produced to the best of my ability via machine shorthand and computer-aided transcription, of the proceedings had in this matter.

Certified to on August 12, 2008.

_____
Breck C. Record
TX CSR #2406/NM CCR #109
Expires 12-31-2008
Firm No. 114
(56693)

Transcript T3. Page 66 of 66

Response to comments in Transcript 3:

T3-001

14 CFR Part 420, Subpart B outlines the criteria and information requirements for obtaining a Launch Site Operator License. An applicant is required to provide environmental information, launch site location information, an explosive site plan, and launch site operations that provide the information necessary to demonstrate compliance with requirements outlined in the regulation. The applicant is not required to provide wind data to the FAA to obtain a Launch Site Operator License

T3-002

See response for T3-001.

T3-003

FAA Order 1050.1E, Change 1 and the President's Council on Environmental Quality regulations at 40 CFR 1506.5(c) require that consultants preparing an EIS execute a disclosure specifying that they have no financial or other interest in the outcome of the project. The term "financial interest or other interest in the outcome of the project" for the purposes of this disclosure is defined in the March 23, 1981, guidance "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations," 46 FR 18026-18038 at questions 17a and b. Tetra Tech signed such a disclosure statement before beginning work on the Spaceport America project.

All work conducted and deliverables prepared by Tetra Tech are reviewed multiple times by the FAA and the cooperating agencies. Information used in the analysis is based on the best available data, which is referenced in the EIS.

T3-004

The FAA has the responsibility, under 49 U.S.C. subtitle IX, ch. 701, to encourage, oversee, and coordinate private sector launches, reentries, and associated services and, only to the extent necessary, regulate those launches, reentries, and services to ensure compliance with international obligations of the U.S. and to protect the public health and safety, safety of property, and national security and foreign policy interests of the U.S. Further under 14 CFR part 420 for a launch site operator and 14 CFR part 417 for a launch operator, the licensee must cooperate with the FAA to observe their activities and monitor compliance of the terms and conditions of the license. For each licensed launch the FAA is present observing the launch operator's activities ensuring the safety of the uninvolved public. In addition the FAA conducts at least one annual inspection of the launch site to verify launch site compliance of regulations.

T3-005

Transport and storage of rocket propellants and other fuels is described in Section 2.1.3.2. The route of transport has not been determined, and would be somewhat dependent on the location of the provider. Security measures for the transport of fuels have not been determined by NMSA, but would likely be the responsibility of the provider or transporting contractor.

T3-006

Information on security, fire, and emergency response is presented in Section 2.1.3.4 under Support Services.

T3-007

Section 3.9 and 4.9 of the EIS discuss impacts from hazardous materials as a result of the proposed action. Spaceport America must comply with the primary federal regulations governing the handling and disposal of hazardous materials, chemicals, substances, and wastes as well as regulations adopted by the State of New Mexico. Spaceport America is not expected to produce enough hazardous waste to warrant a permit required for generators of hazardous waste in New Mexico, and would qualify as a Conditionally Exempt Small Quantity Generator (CESQG). Hazardous materials and hazardous waste impacts are not anticipated because they would be handled, stored, and used in compliance with all applicable regulations.

T3-008

At this time, the proposed action for Spaceport America operations does not include launches or other activities involving nuclear materials. If an individual commercial launch vehicle operator applies to the FAA for a launch license, the applicant's safety review document must identify the type and quantity of any radionuclide on a launch vehicle or payload per the requirements of 14 CFR part 415.115, Flight Safety. Per the requirements of 14 CFR part 417.411, the FAA may require a safety clear zone for hazardous operations of licensed launch activities, if necessary. The launch vehicle operator is responsible for establishing restrictions that prohibit public access to a safety clear zone during a hazardous operation. A launch vehicle operator's procedures must verify that the public is outside of a safety clear zone prior to a launch operator beginning a hazardous operation. Safety clear zone controls could include the use of security guards and equipment, physical barriers, and warning signs or other types of warning devices. To use safety clear zone controls outside of the Spaceport boundary the launch vehicle operator would be required to coordinate with the owners or managers of the property where the controls would be used and obtain their permission.

T3-009

The potential for noise impacts is addressed in Section 4.3.1. Sonic booms are discussed in Section 4.3.1.2, subsection Sonic Booms.

T3-010

The FAA will prescribe the amount of financial responsibility a launch operator licensee or permitee must obtain and any adjustments of the amount in a license or permit order issued concurrent with or subsequent to the issuance of a license or permit. Under 14 CFR part 440, the FAA will determine the maximum probable loss from covered claims by a third party for bodily injury or property damage, and the United States, its agencies, and its contractors for licensed activity. The maximum probable loss determination forms the basis for financial responsibility requirements issued in a license or permit order. Evidence of insurance must be provided to the FAA prior to a licensed launch.

Impacts to traffic and transportation are discussed in Appendix H and within each of the resource analyses in Chapter 4. Primary mitigation measures, as discussed in Appendix H of the EIS, would include NMDOT's plan to pave and install shoulders on Sierra County Road A013 once construction is finished and to use staggered shifts and vanpools as needed during construction. The impacts during construction would be temporary.

T3-011

For the preparation of NEPA documents, where a proposed action is being considered for implementation, the FAA and many other Federal agencies use "would" and "could", and not "should" or "will" to make it clear that an agency decision regarding the action has not been made at the time of the writing.

T3-012

Mining activities in the vicinity of the proposed Spaceport America project site are described in Appendix E.

T3-013

Fencing at Spaceport America would include cattle fencing (four-strand wire) along the entrance and primary road, and security/high game fencing around the runway. The only fencing that would cross El Camino Real National Historic Trail would be the cattle fencing along the entrance road. Impacts to the historic setting of El Camino Real are discussed in Section 4.5 of the EIS.

T3-014

Thank you for your comment.

T3-015

NMSA is developing an MOU in consultation with the BLM that addresses procedures to be implemented for public safety and access to the area prior to and during a launch. By regulation,

NMSA would not be allowed to block access to BLM-administered land, which is primarily used for recreation.

T3-016

Thank you for your comment.

T3-017

Thank you for your comment.

T3-018

Thank you for your comment. Alternative 2, vertical launch vehicles only, was considered in the EIS, but is not the recommended alternative because it did not fully meet the needs of this project.

T3-019

Thank you for your comment.

T3-020

Impacts from chemicals released by launches are discussed in the air quality analysis in Section 4.6 of the EIS.

T3-021

Thank you for your comment. The EIS analyzes a defined scope of operations for the proposed Spaceport America. Should NMSA decide in the future that it wants to expand the scope of operations, the FAA would review the proposed expansion and determine what, if any, additional environmental, safety, and other analyses would be required before that expansion could occur. Such an expansion could involve additional NEPA analysis and public involvement.

T3-022

Currently available information on oil and gas leases and other mineral rights in the vicinity of Spaceport America is discussed in Appendix E.

T3-023

Thank you for your comment.

T3-024

The air quality analysis in Section 4.6 states that construction and operation would have a negligible impact on air quality.

T3-025

The EIS analyses determined the level of impacts using significance thresholds defined by the FAA's Order 1050.1E, Change 1.

T3-026

Impacts on the quiet, rural setting of El Camino Real National Historic Trail are addressed in Section 3.5 and 4.5.The amount of area surrounding the runway and campus to be fenced with security/high game fencing has been reduced in half, from 1,400 acres to 695 acres, to address agency and public comments regarding the removal of grassland from wildlife access. This area is required to be kept free of wildlife for safety and operational reasons. Other design measures have been included such as removing spectator areas and spectator parking areas from the proposed action, and utilizing busses to transport visitors.

T3-027

The area surrounding the runway and campus would have security/high game fencing, and the fuel storage area, wastewater treatment plant and leach field, and the entrance and primary access roads would be fenced with cattle fencing (four-strand wire). Fencing around the proposed facilities would not impact access to other adjacent sites.

T3-028

Impacts of chemicals released by launches are addressed in the air quality analysis in Section 4.6.

T3-029

The Caballo Mountains are outside of the Region of Influence for the proposed project. There is no information to indicate that mining in the Caballo Mountains would be affected by the proposed Spaceport America. Mining is addressed in Appendix E.

T3-030

The Environmental Protection Agency published the Notice of Availability in the Federal Register on July 3, 2008, which officially starts the public review and comment period. The FAA placed an additional notice in the Federal Register on July 9, 2008, which included information about the public meetings.

T3-031

The meetings held in February 2006 were public scoping meetings. Public scoping meetings, per the Council on Environmental Quality regulations (40 CFR 1500-1508), "shall be an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action." Comments on the impacts of a project would be premature, because no analysis has yet taken place. Information from the public scoping meetings guides the analysis to be conducted for the EIS.

T3-032

Potential impacts to soils and water are discussed in Appendix D and Section 4.7, respectively.

T3-033

Potential impacts to water quality are discussed in Section 4.7. Water quality mitigation and enforcement are discussed in Section 6.4.

T3-034

Thank you for your comment. Alternative 2, vertical launch vehicles only, was considered in the EIS, but is not the preferred alternative because it does not fully meet the needs of this project. Sonic booms are analyzed in Section 4.3.1.2, Sonic Booms.

T3-035

Section 4.5 of the EIS discusses impacts and potential mitigation measures for the historical settings within the project area.

T3-036

Chemicals in exhaust from launches are analyzed in the air quality analysis, Section 4.6.

T3-037

Chemicals in exhaust from launches are analyzed in the air quality analysis, Section 4.6. Potential impacts to ground water and soils are discussed in Section 4.7 and Appendix D, respectively.

T3-038

Section 3.6.4.3 of the EIS states that based on air quality analysis, the New Mexico Environmental Department (NMED) found it unnecessary to operate air monitors near the proposed Spaceport America. The closest air monitoring stations are approximately 40 miles south in the Las Cruces area.

T3-039

Only one portion of El Camino Real NHT would have fencing. This fenced portion is along the proposed entrance road, which crosses the NHT, where a cattle fence (four-strand barbed wire) would be installed on each side of the road to prevent cattle from straying onto the road. This fencing should not significantly impact access to big game species and should have no impact to small animals or birds. Mitigation measures for the Camino Real are presented in Section 4.5 and 6.2 of the EIS.

T3-040

Thank you for your comment.

T3-041

Only one portion of El Camino Real NHT would have fencing. The fenced portion is along the proposed entrance road, which crosses the NHT, where a cattle fence (four-strand barbed wire) would be installed on each side of the road, to prevent cattle from straying onto the road. This fencing should not significantly impact access to big game species and should have no impact to small animals or birds. Mitigation measures for the Camino Real are presented in Section 4.5 and 6.2 of the EIS.

T3-042

The FAA has developed a Programmatic Agreement (PA) to avoid, minimize, or mitigate adverse effects to cultural resources. The PA has been submitted by FAA for signature by NMSA, SHPO, ACHP, land management agencies, and other consulting parties. The PA, as submitted for signature, is included in this Final EIS, as Appendix P.

T3-043

Impacts to air quality are discussed in Section 4.6 in the EIS. Air quality mitigation is discussed in Section 6.3.

T3-044

Thank you for your comment. Noise impacts are discussed in Section 4.3 of the EIS.

T3-045

Upon consultation with the consulting parties, it was determined that a Programmatic Agreement would be more appropriate for the project than a memorandum of agreement. The Programmatic Agreement is included in this Final EIS, as Appendix P.

T3-046

Sections 2.2.14 and 2.2.15 of the EIS discuss temporary and permanent improvements to on-site roads.

T3-047

See responses to T3-045 and T3-046 above.

Public Hearing on the Draft Environmental Impact

Statement for Spaceport America

August 6, 2008

Evening Session

Truth or Consequences Civic Center

400 West 4th Street

Truth or Consequences, New Mexico 87901

MR. GRAVES: Okay. I think we're gonna get started here. Good evening, and welcome to the public hearing on the Federal Aviation Administration Draft Environmental Impact Statement for the proposed Spaceport America commercial launch site here in Sierra County, New Mexico.

My name is Scott Graves, and I'm a third party facilitator to assist the FAA in running this public hearing tonight. The purpose of our hearing is to gather comments from you on the potential environmental impacts that were analyzed for the proposed Spaceport America.

As part of meeting this evening, the FAA is going to provide a presentation. Following that short presentation we're going to invite everybody to wander over here to the posters that we have, and the FAA team will be available to answer questions or clarify any of the information on the posters or

anything else that you read in the Draft Environmental Impact Statement.

Following that -- that period of time will be about 30 minutes, and following that we're going to come back here and we're going to do the public comment portion of the meeting tonight. So with that, I'd like to introduce Stacey Zee, an environmental

specialist from the FAA.

MS. ZEE: Hi there. Welcome. Can you-all hear me okay? As Scott mentioned, I'm Stacey Zee, an environmental specialist in the Office of Commercial Space Transportation and FAA. We have some other folks here from FAA, as well. We've got Howard Searight, who's the lead licensing engineer. Dan Czelusniak, also an environmental specialist. Myles Hall with general counsel. NMSA is also here. We've got Kathy Roxlau from TetraTech, for the -- support contractor for the Draft EIS and others. We all have name tags and will be over at the posters, as Scott mentioned, to answer any questions you may have.

We're holding a meeting tonight because the New Mexico Spaceport Authority proposes to develop and operate a commercial space launch site in Sierra County called Spaceport America. In order to operate a commercial launch site, NMSA must obtain a launch site

operator license from the FAA.

The FAA's responsible for preparing appropriate environmental documents under the National Environmental Policy Act. As part of the NEPA process, we are here to provide you with information and collect comments from you.

The FAA Office of Commercial Space

Transportation is responsible for licensing commercial launches and reentries and the operation of launch and reentry sites.

This slide outlines the launch site operator license process. The FAA conducts several reviews during the launch site operator license application evaluation before making a determination on the license. The concurrent review steps include a policy review, a launch site location review, a safety review, and an environmental review. There's a fact sheet available at the registration table that provides more information on the licensing process.

Licensing the operation of a launch site is a major Federal action, and, as such, is subject to the requirements of the National Environmental Policy Act. NEPA declares a broad commitment to protect, restore and enhance the environment and requires that Federal agencies consider the environmental consequences

of their actions.

As part of the environmental review portion of the licensing process, the FAA prepared an EIS to analyze potential environmental impacts associated with licensing the proposed Spaceport America launch site.

Under NEPA, the "environment" includes

the physical and biological environment and human relations to the environment. The FAA is the lead Federal agency responsible for the preparation of the EIS for the proposed Spaceport America. The FAA invited cooperating agencies based on their expertise and jurisdiction. The cooperating agencies on the EIS include Bureau of Land Management, the National Park Service, and U.S. Army's White Sands Missile Range and NASA.

Off-site infrastructure to support Spaceport America will require a BLM right-of-way permit. BLM will use this EIS as a NEPA document for the permit application, and here in the front row is Gloria Allen, and if you have any questions she'll be available, as well.

The proposed action that is analyzed in the EIS is for the FAA to issue a launch site operator license to NMSA that would allow the State to operate

Spaceport America for suborbital launches of both horizontal and vertical launch vehicles. The proposed action also includes the construction of infrastructure to support launch activities.

For the construction that would take place, it would all take place on New Mexico State Trust Land, with the exception of some improvement to existing

access roads and installation of power transmission lines and fiber optic cable to the proposed site. This infrastructure would cross a mix of State Trust, BLM and privately owned lands. The proposed Spaceport America boundary would encompass approximately 26 square miles. The total area of land potentially disturbed by construction would be 970 acres, and the total area of the final facility's footprint would be 145 acres.

Operational activities that were analyzed in the EIS include launch, landing and recovery of horizontal and vertical launch vehicles, ground-based tests, training and X Prize Cup events.

Any vehicle operations that are not considered amateur activities as defined by the FAA would require a separate license or permit from the FAA. These activities would be subject to an evaluation process similar to the one being undertaken now for the launch site operator license. This means that a

separate environmental and safety review would be required for any other licensing permit applications for vehicle operations.

The EIS identifies and considers reasonable alternatives to accomplish the purpose and needs of the proposed project. The alternatives analyzed in the EIS include two Alternatives and a No

Action Alternative.

Under Alternative 1, the FAA would consider issuing a launch site operator license to the operation of the commercial launch site for launches of horizontal launch vehicles only. In this scenario, the full vertical launch complex would not be built.

Under Alternative 2, the FAA would consider issuing a launch site operator license to operational site for launches of vertical launch vehicles. In this case, the vertical launch complex would be built, but the air facilities would be more limited than those proposed under the proposed action.

The No Action Alternative would be for the FAA to not license the operation of the proposed Spaceport America. Under the No Action Alternative, facilities to support commercial operations would not be built, and current amateur launch activities in the area would continue.

Alternatives not carried forward for further analysis in the EIS include alternative suborbital and orbital launch vehicles, alternative sites and alternative site layouts.

This slide outlines the impact categories that the FAA analyzed in the Draft EIS, per the requirements of NEPA and FAA's regulations. Categories

include compatible land use, noise, air quality and others. Please keep in mind that just because an item appears on this list does not mean a significant impact is expected to that resource.

The FAA has determined that the proposed action would impact historic properties. Physical damage to historic properties could occur, and the Proposed Action could result in changes to the setting in which the resources are located. The visual and noise impacts could also impact historic properties.

The FAA plans to work with cooperating agencies, affected parties and the State of New Mexico to develop measures to avoid, minimize or mitigate the adverse affects to historic properties.

The FAA is also developing a Memorandum of Agreement that outlines these additional measures.

Now that I have provided an overview of EIS, I will now discuss the EIS schedule and how you can

remain involved. The EIS process started in January 2006 when the FAA published a Notice of Intent in the Federal Register to prepare an EIS. The FAA held two scoping meetings in February 2006 to collect initial public input on potential environmental impacts from the proposed project. Since that time, the FAA has been developing a Draft EIS, which was finalized and

distributed to agencies and the public in late June 2008. On July 3rd the Environmental Protection Agency published a Notice of Availability of the Draft EIS in the Federal Register. This started the required 45-day public comment period, which ends on August 18th.

The FAA will develop a Final EIS that addresses and responds to comments received from the Draft EIS. The FAA anticipates publishing a Final EIS in November 2008 and will mail it to the distribution list. No sooner than 30 days after the Final EIS is published, the FAA will issue a Record of Decision for the proposed project, and it is expected in December.

Please note that a successful completion of the environmental review process with a record of decision does not guarantee that the FAA will issue a launch site operator license to NMSA. The project must still meet all FAA safety, risk and indemnification requirements.

Now I'm going to turn back the floor to Scott Graves, and, again, we will be available over at the posters for questions.

MR. GRAVES: Thank you, Stacey. We're going to turn the lights on. On the clock up on the wall up here it says 6:50. We'll take 30 minutes, and at 7:20 we'll reconvene back over here and we'll do the

public portion of the public meeting. I invite FAA folks to come over to the poster or anyone else that wants to ask questions or just discuss elements of EIS, and we'll be happy to clarify any points that you have.

(Recess taken.)

MR. GRAVES: We've got about five minutes before the public comment period begins, and I would like to ask anyone that has a public comment to sign in at the registration desk so that we can get your name, and I'll call everybody's who's signed up first, and then we'll open up to folks that haven't signed up. Thank you.

(Recess taken.)

MR. GRAVES: Before we move into our public comment period, I'd just like to go over a couple of points here this evening. First, if you'd like to provide a statement tonight or if you wish to be added to the EIS mailing list, please sign up at the

registration table.

We do have a court reporter here this evening to ensure that we capture your comments accurately. And if you would like to provide a comment but do not wish to speak in front of the audience, the court reporter will record your comment after everyone has finished speaking.

The purpose of the hearing here this evening is to collect your comments and thoughts on the proposed project. Therefore, FAA will not be responding directly to your comments this evening. FAA will be addressing comments in the Final EIS.

In addition to providing comments here this evening, there are a number of other ways that you can submit comments to FAA for this project. You can submit written comments using the comment form that's available at the registration table or you can submit written comments by mail, fax or e-mail, and relevant address information is on the fact sheet, which is available, also, at the registration table.

Please note that all comments must be submitted to FAA by Monday, August 18th, 2008. And just a couple of reminders for those planning to come up to speak. We ask that you speak into the microphone here at the podium, and please state your name. And if you

represent an organization, please also state the organization that you represent.

I want to thank you for your time tonight, and we look forward to working with you throughout the process as it unfolds. And, currently, we have one person who signed up to speak, Mr. Casey Luna. Mr. Luna, would you like to come up and speak?

MR. LUNA: Thank you.

MRS. LUNA: You may never get the microphone back.

MR. LUNA: I think the most effective thing here is that the gentleman didn't say, You have three minutes. I won't -- first of all, let me tell you who I am and why I'm here and why is this meeting for me and my wife and I being here, as retired people probably doing other things.

I had the privilege of serving my state as former lieutenant governor. I've had the privilege since the early '90s of working in this effort, in terms of how do we do, create and finish up calling ourselves a Spaceport state. And why would we want to do that here? Why New Mexico? Why do we want to be southwestern inland state? We're not Florida. We're not Hawaii. We're not Alaska. We're not Virginia. We're in an area where, why would we want to do this?

Probably for the same reasons that a man by the name of Goddard came here in the '40s and introduced us to rocketry. It wasn't well thought of in those days. That was just a bunch of kids playing on the desert with a bunch of rockets. And why would we want to work with a force, the atomic bomb in Los Alamos? Why would we want to create laboratories,

Sandia labs, and on and on? Why would we want to be a danger state? Why would we want to join, as a former governor called it, the Buck Rogers Era?

New Mexico has an enormous capacity to offer a way to do these kind of things that we dream about, read about, that other countries, other worlds are involved in. I was a member of the -- at one time we had a Spaceport Commission. Eventually, it evolved into a Spaceport authority. I was a member of that.

I resigned my position about three months ago or so, only because I had worked with this thing so long in the early '90s into just a few months ago, and I felt like it was somebody else's turn to create some fresh input, some desires to keep this thing going.

And here we are today a goal, a goal that was made possible by the people that have committed themselves, Mr. Lan Dean, Mr. Gomez and many others that have committed themselves to make this a reality.

I felt like I needed to be here to boost their desire and your desire for being here. I'm sad to say that we don't have 200 people here like we had at another meeting here last night -- not here, but across the street having to do with motorplex and other issues that confront this community.

Needless to say, this effort's going to

be located 20-some-odd miles, 26 miles as the crow flies from here. And it may not mean a whole lot directly, like, you know, it's not going to impact this community, it's not going to mean anything.

I must tell you the efforts have always been, since I can remember, to focus on this community. This is where it needs to be. This, logistically, is where it needs to be. This is where -- you might call it headquarters, the officing, anything having to do with what happens with the Spaceport will be in this area. Not anything against Las Cruces. Las Cruces is a long way off. But, again, it's an effort to have to drive that far or whatever it takes to get to that point to conduct your business. This was the most logical place that was available.

There are little communities, small communities, good communities like Hatch, New Mexico, that has one heck of an interest in what's going on here

tonight. Believe it or not. A lot of surrounding communities. Rincon. A lot of communities that have an interest in what's going on here. I don't think -- and I say this, my own opinion -- I don't think that Truth or Consequences understands exactly what's going on here. This is huge.

This is probably the most beautiful

long-term thing that could ever happen to this area. It's incumbent upon this community to support everything that's going on here, welcome the FAA for them taking their time, the many people that are here tonight representing that group. Welcoming them into this community and taking advantage of what they have to present to you, and what it means not just to this community, not just to this state, but to the world. Seriously, to the world. Rocketry.

Aerospace is not just a local thing. It is an everlasting thing for -- when we talk about going -- let me just tell you a little bit of history about what I was confronted with one day, please. I made a presentation to a previous governor, and I'm not going to mention names. I made a presentation to previous governor, and I was told, Casey, this is a Buck Rogers deal. I'm not too excited about this effort. And I said, Governor, with all due respect, we've been

to the moon and back. We're talking about going to Mars. Yeah, but, he says, It's still -- fact is, it's pretty dangerous. I said, Governor, again, with all due respect, New Mexico has been in the danger business ever since I've been around. Remember Dr. Goddard, when he came here with rockets. Remember Los Alamos during World War II. The invention of a force, the atomic

bomb, that ended World War II.

And, Governor, remember the fact that we have hollow mountains with nuclear storage. Remember the fact that there are rockets going from Los Alamos -- excuse me -- from White Sands to Utah, from Utah back. They stop traffic on the highway because there's dangerous things going on day in and day out.

Governor, there is a lot of things going on that would create danger in this state, but if you're not willing to take a gamble, a chance, nothing will come of it. Point was that I think it's been very difficult for people to understand what it is this whole effort's about.

There's a misconception, a royal misconception, that it's for rich people that will take flight into space. They're willing to pay $250,000 to ride up there and be involved for a couple of hours and then come back and say, I've done it.

Ladies and gentlemen, it's much more than that. Much more than that. It's a way for the private sector or people to get involved in what's been a package that was nothing but NASA. Not anything negative against NASA, but now it's an opportunity for the private sector to get involved in an industry that offers -- there's no end to what it offers. There

really is no end to what it offers, besides just a ride into space, come back and pay your bill and it's done.

I want to make welcome the FAA people who took time and made an effort to be here with us to educate us on what this is all about, not just because of my personal involvement, because I think there's a lot -- this governor and the legislature have made funds available, your money, towards this effort.

So there is something -- something says somebody believes in this besides just a few of us that may be here. This is an effort that's long-term. It's not going to happen overnight. But you will see the net result when your child or your grandchild is able to participate in the fact they may be working with this project or they may be involved in some direct or indirect manner, enhance their quality of life for the things that maybe are not available to us today.

I'm just real, real happy to be here. My

wife, Beverly, and I are here because we believe in this effort. And because we believe in what these folks are trying to do for not just the city, not just the state, but this nation.

I'm going to finish up by telling you that Rick Homans -- mention his name -- he was our leader at one time. He was the secretary of the

Department of Economic Development with the State of New Mexico, and he was our leader at one point. And he and I were discussing -- at that point what we called a Regional Spaceport. Regional means, you know, we're going to share things with surrounding states and surrounding people.

And at that point, I thought -- I told him, I said, Rick, that sounds like, you know, it belongs to New Mexico. It sounds exclusive. Regional Spaceport. New Mexico Regional Spaceport. It sounds like it's very exclusive. This is not an exclusive issue. It's an inclusive issue. It's a national issue. It's all over the world.

We can offer services to the entire world. The French are doing it. The Japanese are doing it, a lot of people are doing it. A lot of people want to do it, but they don't know how. They don't have the quality of life that we have to offer here, 360 days of

Transcript T4. Page 34 of 39

sunshine, the open air. So many things that we have to offer here. Altitude.

I said, I think maybe we ought to change the name. Therefore, the name became Spaceport America. That's where it stands, Spaceport America. That's what it's all about. Not for you and I, it's for everybody.

So what these people are doing here

tonight are trying to enforce in a meaningful way what everybody feels -- maybe not everybody, but a lot of people feel is a very meaningful thing for this entire country.

I want to thank you for allowing us to be with you here tonight, my wife and I and my many friends here that I spent the night. I want to thank Lou Gomez and you, Mr. Landy, for your efforts. And I want to thank FAA for taking the time to be here. I know this is part of your job, but you made us very, very proud that you took the time to be here with us and teach us and lead us and guide us in the right direction. Thank you.

MR. GRAVES: Thank you, Mr. Luna. Is there anyone else who wishes to speak here tonight?

MR. LUNA: Right here's one of the -- excuse me, sir, right here is the commissioner that took time from his own personal life to be here because it's

meaningful to him. This is Mr. Freddy. Say a few words.

MR. FREDDY: I do want to thank the FAA for coming. Thank you.

MR. GRAVES: Thank you. Well, if there's no other comments and no one else wishes to comment, we can be concluded here this evening. Thank you for your

attendance, and we'll be in touch.

MR. WOODS: I'd like to thank Mr. Luna here for everything he's done for this community, and I'd like to say I'd like to see you on the commission and stay involved.

MR. LUNA: Thank you, sir.

MR. FREDDY: We'll keep him involved one way or other.

MR. WOODS: I'm Jack Woods, by the way. I have a ranch out by Eaton. More people like Casey.

MR. LUNA: We need more people like you, Jack.

MR. WOODS: Thank you.

(Proceedings concluded at 7:36 p.m.)

CERTIFICATE

I, Breck C. Record, Certified Shorthand Reporter in and for the State of Texas, do hereby certify that the above and foregoing contains a true and correct record, produced to the best of my ability via machine shorthand and computer-aided transcription, of the proceedings had in this matter.

Certified to on August 12, 2008.

_____

Breck C. Record
TX CSR #2406/NM CCR #109
Expires 12-31-2008
Firm No. 114
(56693)

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Response to comments in Transcript 4:

No comments were provided during this public hearing.

TRANSCRIPTION

OF

PUBLIC HEARING ON DRAFT

ENVIRONMENTAL IMPACT STATEMENT

FOR SPACEPORT AMERICA COMMERCIAL LAUNCH SITE

The following public hearing was held at the Dona Ana County Government Center, 845 North Motel Boulevard, Las Cruces, New Mexico 88007, at 2:00 p.m.

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on Friday, August 8, 2008.

(56706)

MR. GRAVES: Good afternoon, welcome. Can you all hear me pretty well?

UNIDENTIFIED SPEAKER: Can you boost the volume up?

MR. GRAVES: How is the volume back there? Can you guys hear me? Okay. Good. Good afternoon, and welcome to the public hearing on the Federal Aviation Administration draft environmental impact statement for the proposed Spaceport America commercial launch site in Sierra County, New Mexico.

My name is Scott Graves, and I'm here as a third party facilitator to support the FAA in running

this public hearing this afternoon. The purpose of our hearing today is to gather comments from you on the potential environmental impacts that were analyzed for the proposed Spaceport America.

As part of the meeting this afternoon, FAA is going to do a short 20 minute presentation. Following the presentation, the FAA team will be available over here by the posters for about half an hour to answer questions or clarify any of the information that was presented, and then we will move into the public comment portion of our hearing this afternoon.

For more information about the project, I

encourage you to pick up available handouts at the registration table outside the door here and review the posters on display. And with that I would like to introduce Stacey Zee, an environmental specialist from the FAA. Stacey.

MS. ZEE: Good afternoon. Can you all

hear me okay? As Scott mentioned, I'm Stacey Zee. I'm an environmental specialist in the Office of Commercial Space Transportation at FAA.

Also here from FAA today is Myles Hall, general counsel, Daniel Czelusniak, an environmental specialist, Howard Searight is our lead licensing specialist. We also have some folks from NMSA here. We also have the TetraTech specialist who wrote the draft EIS. So all of us will be available over at the posters afterward to answer your questions.

We are holding a meeting tonight because the New Mexico Spaceport Authority proposes to develop and operate a commercial space launch site in Sierra County called Spaceport America. In order to operate a commercial launch site, NMSA must obtain a launch site operator license from FAA.

The FAA is responsible for preparing appropriate environmental documentation under the National Environmental Policy Act. As part of the NEPA

process, we are here to provide information on the project and collect comments from you.

The FAA Office of Commercial Space Transportation is responsible for licensing commercial launches and reentries, and the operation of launch and reentry sites. This slide outlines the launch site operator license process. The FAA conducts several reviews during the launch site operator license application evaluation before making a determination on the license.

The review steps include a policy review, a launch site location review, a safety review and an environmental review. There's a fact sheet available at the registration table with additional information on this process. Licensing the operation of a launch site is a major federal action, and as such is subject to the requirements of the National Environment Policy Act.

NEPA declares a broad commitment to protect, restore and enhance the environment, and requires that federal agencies consider the environmental consequences of their proposed actions.

As part of the environmental review portion of the licensing process, the FAA prepared an EIS to analyze potential environmental impacts

associated with licensing the proposed Spaceport America launch site.

Under NEPA the "environment" includes the physical and biology environment and human relationships with the environment. The FAA is the lead federal agency responsible for the preparation of the EIS for the proposed Spaceport America.

The FAA invited cooperating agencies including the Bureau of Land Management, the National Park Service, U.S. Army's White Sands Missile Range, and NASA. Offsite infrastructure to support Spaceport America will require a BLM right-of-way permit. BLM will use this for the permit application.

The proposed action that is analyzed in the EIS is for the FAA to issue a launch site operator license to NMSA that would allow the state to operate a

Spaceport America for suborbital launches of both horizontal and vertical launch vehicles.

The proposed action also includes the construction of infrastructure to support launch activities. This construction that would take place to support Spaceport America would take place on New Mexico State Trust Land, with the exception of some improvements to existing access roads and installation of a power transmission line and fiber-optic cables to

the project site. This infrastructure would cross a mix of State Trust, BLM and privately-owned lands.

Can you still hear me all right? The proposed Spaceport America boundary would encompass approximately 26 square miles. The total area of land disturbed by construction would be 970 acres. The total area of the final facility's footprints would be 145 acres.

Operational activities that were analyzed in EIS include launch, landing and recovery of

horizontal and vertical launch vehicles. Ground-based tests, training and X Prize Cup events. Any vehicle operations that are not considered amateur activities as defined by the FAA would require a separate license or permit from the FAA.

These activities would be subject to an evaluation process similar to the one being undertaken now to evaluate the launch site operator license. This means that a separate environmental and safety review would be required for any other license or permit applications for vehicle operations.

The EIS identifies and considers reasonable alternatives to accomplish the purpose and need of the proposed project. The alternatives analyzed in the EIS include two alternatives and the no

action alternative.

Under alternative 1, the FAA would consider issuing a launch site operator license for the operation of commercial launch site for launches of

horizontal launch vehicles. In this scenario, the full vertical launch complex would not be built.

Under alternative 2, the FAA would consider issuing a launch site operator license for the operation of a site for launches of vertical launch vehicles. In this case, the vertical launch complex would be built, but the airfield facilities would be more limited than those under the proposed action.

The no action alternative would be for the FAA to not license the operation of the proposed spaceport. Under the no action alternative, facilities to support commercial launch operations would not be built, and current amateur launch activities in the area would continue for the foreseeable future.

Alternatives not carried forward for analysis in EIS include alternative suborbital and orbital launch vehicles, alternative sites, and alternative site layouts.

This slide outlines the impact categories that the FAA analyzed in the draft EIS per the requirements of NEPA and the FAA's regulations.

Categories include compatible land use, noise, air quality and others. Please keep in mind that just because an item appears on this list does not mean that a significant impact is expected to that resource.

The FAA has determined that the proposed action would impact historic properties. Physical damage to historic resources could occur and the proposed action could result in changes to the setting in which the resources are located. Visual and noise impacts could also impact historic properties.

The FAA plans to work with cooperating agencies, affected parties and the State of New Mexico to develop measures to avoid, minimize or mitigate the adverse effects to historic properties. The FAA is also developing a Memorandum of Agreement that outlines the mitigation measures.

Now that I have provided an overview of the EIS, I will now discuss the EIS schedule and how you can remain involved. The EIS process started in

January of 2006 when the FAA published a Notice of Intent in the Federal Register to prepare an EIS.

The FAA held scoping meetings in February 2006 to collect initial public input on potential environmental impacts from the proposed project. Since that time, the FAA has been developing

a draft EIS, which was finalized and distributed to agencies and the public in late June 2008. On July 3rd, the Environmental Protection Agency published a Notice of Availability of the draft EIS in the Federal Register.

This started the 45 day public comment period, which ends on August 18th. Can you all hear me? The FAA will develop a final EIS that addresses and responds to comments received on the draft EIS. The FAA anticipates publishing a final EIS in November 2008, and will mail it to the distribution list. No sooner than 30 days after the final EIS is published, the FAA will issue a Record of Decision for

the proposed project, which is expected to occur in December.

Please note that the successful completion of the environmental review portion, with a Record of Decision, does not guarantee that the FAA will issue a launch site operator license. The project must still meet all FAA safety, risk and indemnification requirements.

I'm going to invite Scott Graves back up here to close out the presentation.

MR. GRAVES: Thanks, Stacey.

At this point, we're going to invite the

FAA team to move over to the posters and invite you to join them over there, take a look at the posters. If you have any questions about the information that Stacey just presented or any of the information that's presented on the posters, we invite you to engage the FAA team in conversation, get some clarification and we'll do that for 30 minutes and then we'll move into

the public comment portion of our meeting.

On my watch, anyway, I have 20 minutes after. So at ten till, and I'll give you a warning in terms of, like, a five minute warning that we're going to reconvene for the public comments. With that, if the FAA team could move over, and we'll start doing the conversation over here. Thank you.

(A recess was taken.)

MR. GRAVES: Folks, we're going to get started. So if you could please take your seats. Thank you. Can everybody hear me now with the microphone? It's a little bit finicky as you've probably discovered. So if you are a little bit vocally challenged as I am, you have to be at just the right angle for the microphone to pick you up.

Before we get started, I just want to go over a few administrative points here, and we would then open it up for public comments.

First off, if you would like to provide a

statement today or if you wish to be added to the EIS mailing list, please sign up at the registration table outside the door here, and Shana is out there and will be able to assist you with that.

Second, to allow sufficient time for everyone to speak, we're asking speakers to limit your initial comments to three minutes per speaker. And then after everyone has had a chance to speak, if you wish to come back and expand your comments, we'll be happy to provide an opportunity to do that.

And for those of you who have a little bit of a hard time keeping track of time, I've got a handy dandy little semaphore that will flash yellow with 30 seconds left, and your time will go red when your time is up.

We do have a court reporter here today, and her presence is here to help ensure that we capture your comments accurately. If you would like to provide a comment but do not wish to speak in front of an audience, the court reporter will record your comments after everyone has finished speaking today.

The purpose of this hearing, as Stacey

mentioned earlier today, is to collect your comments and thoughts on the proposed project. Therefore, FAA

will not be responding directly to your comments today. FAA will be addressing comments in the final EIS, however.

In addition to providing public comments here today, there are a number of other ways that you can submit comments to the FAA on this project. You can submit written comments using the comment form, which is also available at the registration table outside the door.

You can also submit comments by mail, fax or e-mail. And the relevant address information for those comments is on the fax sheet, which is available at the registration desk as well. Please note that all comments must be submitted to FAA by Monday August 18th, 2008.

And a couple of reminders for folks who plan to provide comments today. We ask you to come up

to the podium here and speak into the microphone. I think that might help the court reporter to hear everything that you are saying, and everyone else as well. We ask you to please state your name and if you are representing an organization, please state the organization's name, and if you could state the entire name as opposed to an acronym, that would be helpful.

I've got a list of names from the sign-up

sheets out in front. So if you haven't signed or if you've signed up recently and I don't call your name, just raise your hand when I've gotten through everybody and we'll be sure to get you up here.

And I think with that I would like to just thank you for your time today and we'll look forward to working with you throughout the process. The first person who is listed on our list here is Klaus Wittern.

MR. WITTERN: Klaus Wittern.

MR. GRAVES: Klaus Wittern. I'm sorry.

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We had a hard time getting your writing down. My apologies.

MR. WITTERN: Klaus Wittern, and I don't represent an organization, per se. I'm a private citizen. Now, let me first make the following statement. I think it is a very well done piece of property, and it may very well have followed the prescription laid out for these types of statements, but I think there are some major elements that are missing, and that is the beneficial side of the spaceport, I believe, got short-shrifted in this document, and I will attempt to do that in written form.

There are a small number of what I

consider to be errors. One is the 7.2 kV line is not a transmission line. That's a distribution facility, and should be changed. T5-001

And in the abbreviation and acronym section DOT was not picked up. I presume that is U.S. DOT and not NM DOT, and I think that needs to be added. T5-002

There are a couple of issues that I believe need to be more closely addressed, and that is the beneficial aspects of the existence of the railroad. In my opinion, the existence of the railroad can be a very significant mitigating tool to bring or to require transportation corridors to be developed.

The railroad has enormous capacity to bring heavy loads into it, rather than on trucks. The railroad has the ability to bring a lot of people in short order into it if it were designed to do that. T5-003

That is particularly, in my opinion, strongly desirable for the X Prize event that is planned to be in that facility because that will require thousands and thousands of people to come in in a very short period of time and should not burden the regular 360 day operation of that facility. So I would strongly recommend that that be expanded.

The area that I have concern about is that there is not addressed an exclusionary zone at this moment for the facility, and I believe it needs to T5-004

be done in order to shield the facility from future impacts of us, the people that come too close to a facility that is potentially dangerous where things can fall out of the sky. So I would strongly recommend that that be done early. T5-004

And I see I'm out of time. If I have an opportunity to do it later on, I'll be happy to come back. Thank you.

MR. GRAVES: Definitely. The next person on our list is Tamie Smith.

MS. SMITH: I want to wait.

MR. GRAVES: Certainly. Sandra Tatum?

MS. TATUM: Good afternoon, I am a private resident, private citizen. I have a question about when we are assessing in an EIS the ROI and we look at that footprint within certain parameters, I have a feeling that we really underestimate the related impact of many of the factors that are assessed.

I have a question about the 345 kV line, the trunk line that is to the east of the property. I T5-005

don't know what possible danger -- I don't hear anything about the plan for that line. And when I think of vertical launches, horizontal launches and recovery on the missile range, I really worry about that big line. Is it part of the Federal Energy Corridor planning? I would like some answers on that.

T5-005

The other question I have is that -- and it may relate to what Klaus said. Somebody has bought Cutter and Ingall, right, so that's in the works too. Thank you.

T5-006

MR. GRAVES: Next is Angel Montoya.

MR. MONTOYA: Thank you. I'm here representing Dona Ana County Associated Sportsmen today. I just wanted to say that in the document I understand that there's a mitigation plan for the ranching aspect of this, and I think that there ought to be a mitigation plan for the wildlife aspect of this.

T5-007

You know, there's a complete plan there

that shows what you are going to do for ranching, and some of that is being compensated for with dollars. I think that there ought to be some compensation for the impacts on wildlife. Some of those impacts that should be addressed are waters and whether those waters will be on year-round or not, also erosion control, fencing, loss of hunting opportunities and access to hunters.

I know that it may just be a small area, but I think that more and more some of our hunting opportunities are taken away. I would also like to see figures added to that and to the project, how those

T5-007

figures add up as far as impacts to wildlife.

A couple of other comments I have is we're concerned about any new roads being developed. There are some big horn sheep on the southern part of the Caballos, and I hope there's no new roads put in in place of this.

T5-008

I think that the access points should stay the same as the Upon Road and the Ingall Road.

One other thing that was apparent to me in talking to the folks here is that FAA may have a different level or different guidance as far as addressing significant impacts.

And since this project is being conducted on a bunch of different agencies' land, I think that they ought to use the level of guidance that is the highest so, yeah, it seemed like FAA is saying there is no significant impacts to wildlife, but some of the other folks were saying, well, there may be some impacts to wildlife. So I hope that you guys address those and that they come out in the final EIS. Okay. T5-009

MR. GRAVES: Next is Bob Tafanelli.

MR. TAFANELLI: My name is Bob Tafanelli, and I'm here on behalf of the Mesilla Valley Audubon Society, and my comments will be very brief and very focused on birds. Like Angel had said, we're

concerned, also, that the mitigation plan is part of a ranching plan. And I think these are two separate

issues that have two separate needs and should be addressed separately.

This wildlife mitigation plan should be, also, more specific. There's a lot of generalities in the EIS, but we have a lot of concerns about many desert grassland species. Many, if not most, of the grassland species are and have been in decline for a long time. T5-010

And although the 1400 acres of grassland was thought to be insignificant, it certainly isn't insignificant to many of the grassland birds who use those areas and who are having trouble year after year.

One of the problems that I see -- I've lived here for almost 30 years, and so I've been to many of these kinds of things for a variety of issues, and they are always dealt with just that issue. And we need to take a more landscape approach on looking at impacts. T5-011

This 1400 acres of grassland may not be significant to some species. For example, one of the others that we're interested in is the Aplomado falcon. It's not big enough to support one pair, but it is a

very good hunting area. And in conjunction with adjacent areas that may not be part of this property, it could become very significant even to a bird like the Aplomado falcon who has a big home range.

Smaller birds, Brewer's sparrows, for example, have much smaller home ranges. What is the effect on these birds as summer residents, as breeding pairs? What about wintering? None of those things are addressed. And in the mitigation plan, I think any bird species that is a species of concern or listed, either state or federal, should be addressed. And this would make it a much more comprehensive and much more credible document. T5-011

If I may, one last comment on the Aplomado falcon. I was disappointed that there wasn't more information on and more credence lended to the predictive model that was produced by New Mexico State University by Kendall Young. That was a five year project, a five year study in which the result shows T5-012

which habitats are potential Aplomado falcon habitat. That's a very significant study, and it is a very important study. And it was actually based on actual Aplomado falcons in Mexico. So I don't think that can be ignored and it should be more adequately addressed. Thank you. T5-012

MR. GRAVES: Next is S.D. Schemnitz. Did I get that correctly?

MR. SCHEMNITZ: Thank you. I represent the Southwest Consolidated Sportsmen, which includes 15 different wildlife oriented organizations, primarily in and nearby Dona Ana County, and approximately 1500 total members. We believe that the impacts will be substantial on wildlife and wildlife habitat. T5-013

The research aspect, as mentioned and as being considered, but funding would only be 50 percent by the spaceport source of revenue for this project, T5-014 and it's going to amount to $69,000 worth of unavailable funds, which is basically a drop in the

bucket when it comes to the whole spaceport program.

So we would like to see that covered and included to see what the impacts of the spaceport will be on various wildlife populations, as well as habitat. Water, of course, is a short situation in the desert, particularly during drought years. T5-014

Erosion control needs to be considered in the spaceport development, and construction during nesting seasons would be hopefully minimized, and the construction would be at times other than when the birds are reproducing. Likewise, seven miles, approximately, of overhead wires could and should be considered to be placed underground to avoid collisions T5-015

and possible electrocution with migrating birds.

The exclusion fencing will have a deleterious impact on prong-horned antelope. So we believe that the mitigation which is supposedly, maybe considered as optional or unnecessary, should be mandatory in order to protect the interests of the T5-016

people of New Mexico, the sporting fraternity, as well as the other recreationists. Thank you. T5-016

MR. GRAVES: John Moen.

MR. MOEN: My name is John Moen, and I'm a chapter chairman of Southwestern New Mexico Quail Unlimited. We've been involved in this process for a couple of years. We're working on a big project just north of here with the BLM that approximately $800,000 is going to spent, and we put $20,000 of our hard-earned money into this project just north of here with the thought that we can do some work north of here, and hopefully the folks that want to build a spaceport in southern New Mexico and rob us of a couple hundred acres of prime hunting opportunity -- as long as we work together to put together a plan that would allow for sensitive wildlife issues to be dealt with, we felt like everything was going to fly pretty good.

We worked with the BLM folks here in Las Cruces to work on this plan with the Game and Fish T5-017

Department, and they looked at mitigation processes that would allow for water tanks to be moved, fences to be dealt with, additional waters to be put in because we're talking about the sweet spot of that whole valley up there.

T5-017

And when quail nest, they need insects for their chicks to survive, and that comes from green grass. And when we take 1500 acres, approximately, out of the sweetest spot in that valley, we have definitely seriously impacted the wildlife issues.

So what we're here today to tell you is that we want to make sure that significant impacts to wildlife are what we consider to be significant, not necessarily what someone else has determined is not or is significant.

This is southern New Mexico. We do receive between four and 12 inches of rain a year, and the wildlife follows the rainfall. And we want to make sure that the animals that live east and west, north and south of this spaceport are not directly affected by this spaceport's footprint.

T5-018

So what significant impacts would be we felt like were very well addressed in the mitigation process the BLM put together, some $400,000 worth of projects that could be done or should be done. And I'm here to tell you that we have 250 members in our organization in this valley, and throughout the State of New Mexico, and we would like to see that these things are done, and then we're happy to have the spaceport here.

We voted for it. We're going to pay for it so we want to make sure that our voices are concerned, and not the people who are necessarily going to make money off of it. As a citizen of Dona Ana County, I hope we all make money off the spaceport, but let's not forget the wildlife that lives out there 365 days a year and was here for 1,000 year before and will be here for 1,000 years after we're gone. Thank you very much.

MR. GRAVES: Rob Hoffman.

MR. HOFFMAN: My name is Rob Hoffman. I'm a member of Quail Unlimited as well. I think John made the point, and in talking to some people from the FAA, basically what I learned was -- is that some biologist for a consulting firm, wildlife biologist determined that the impact to wildlife from this footprint does not reach the threshold level of significance for the FAA.

And that's mandated by some governmental rule. And I think the most important thing to recognize is that some governmental rule -- it's not Wisconsin or Iowa. It's southern New Mexico, and what we experience down here in terms of habitat and critical wildlife needs are very much different than they are someplace else.

T5-019

And what -- and the rules that you use for Wisconsin or Iowa or Montana are not the same as southern New Mexico, and particularly we don't have lots of grasslands. The Armadorus Ranch in that valley

T5-020

up there is one of the prime grasslands in southern New Mexico, in fact in the whole southern New Mexico region.

So therefore two sections is not an insignificant impact on wildlife for our standards, not for the FAA's Washington standards. And basically what I've learned is that because the impact on wildlife, as determined by the consulting firm, is not sufficiently high to meet their threshold, basically the FAA and presumeably the spaceport say that the wildlife can do their own thing. T5-020

They can function on their own. We don't need to worry about them. We don't need to worry about them, and therefore they are not -- they are not deserving of any financial considerations in the whole planning -- in the whole mitigation process. The

wildlife need to fend for themselves. That's what I learned and that's what I understand.

Now, it's couched in a lot of

bureaucratic jargon, but basically if it doesn't reach the threshold, tough. And I think that's wrong. This is southern New Mexico. These are our species. These are our lands. And if we want to use our land the way we want to use it, that's our business, not some regulation. Thank you. T5-021

MR. GRAVES: Thank you. That's the last person who had signed up previously.

Do you want to speak, Ms. Smith?

MS. SMITH: Yeah. Tamie Smith, and that's T-A-M-I-E. I haven't finished reading the whole document. It's really pretty huge so I may be asking a question or making a comment that's already answered there.

I am concerned about the transportation situation that is caused going up and down Highway 70 to access where the site is. Right now there's a terrible load of traffic. And those of you who have come from out of town probably are not aware of the traffic load on 70, just handling what is here already. T5-022

So according to the documentation that was sent out and the draft EIS, there could conceivably

be 20,000 cars going out to the site for any of the events that are taking place. And I imagine that's based on the poplation we have now, which is just exploding. So what it might be by the time the site is in effect, there's no telling. T5-022

Aside from the traffic concerns and the congestion, I'm also concerned about what's being transported. Now, I understand that the fuel being used is considerably safer than any other fuels, but it still is not like carrying a bunch of water in the back of your truck.

So there is no marking on any of the highways in New Mexico, HC markings which you see all around the country for hazardous cargo, and that bothers me because there's a lot of traffic coming down 70 and hanging a right or heading west toward the west coast carrying hazardous cargo, likewise on our trains. T5-023

I think a lot of people are not aware of what is going through this area. So that is not

discussed in the DEIS. I think that it should be. And that's about all I have to say for right now. Thank you. T5-023

MR. GRAVES: Is there anybody that did not sign up that would like to speak this afternoon?

MS. KRUEGER: My name is Susan Krueger,

and I'm here representing the New Mexico Heritage Preservation Alliance. And I have mentioned this at other times. The town of Mesilla permitted a gas station. And on paper, didn't it look nice. It was white and brown in the right places and it seemed to fit right in the neighborhood.

And then the gas station was built. The noise, the activity, the light was horrendous, and the neighbors who aren't quail -- they happen to be human beings -- complained bitterly about how the town of Mesilla could ever have permitted this gas station to come into this residential neighborhood.

So in setting up mitigation, it seems to T5-024

me that we should be supplied with some comparisons. What will the spaceport compare to for noise, light, activity? What will it be like? Well, a gentleman from the National Trust compared it to LAX. Okay.

And he said all you need to do is go to a major city that has a huge airport and just stand there in the presence of that airport while it's operational, and you'll know exactly what the spaceport will be like when it's operational.

And trust me, if you go to LAX, there will not be a single quail nest. There won't be any bugs that can be fed to chicks so we don't have this

T5-024

3D, what is actually going to be there on the ground, to compare to what's on paper and in a plan.

And it looks just gorgeous. It flows right into the landscape, but once the fence goes up and the lights go on and the launches take place, then what will it look like? That's just -- I feel in doing the mitigation it would be very helpful if we also told

people this is a comparison, and in understanding the mitigation take a trip to the airport and then see what it's like. Thanks. T5-024

MR. GRAVES: Thank you. Is there anyone else who did not sign up that would like to speak this afternoon? Is Mr. Wittern still here? Would you like to --

MR. WITTERN: Yes, thank you. There are a couple of additional comments that I would like to make, and it pertains to the infrastructure component on page ES-4. It says right there, the first paragraph says infrastructure and construction activities. There is no mention made of a potential gas line.

And I believe that spaceport will need some form of gas line early on, and from what I've been told in the out years. And that could very well be ten T5-025 or 12 years away. There could be a very significant amount of natural gas requirement that may require a

high pressure transmission line of eight to ten inch.

And so in my opinion that should be -- and I understand that this one only looks out five years, but there are documents on hand that we have in our possession that basically says there could be a significant demand for natural gas in the ten to 12 year horizon.

In my opinion, that should be -- that is foreseeable. And so I would urge you to mitigate against that one and put that one into the document. And then I have a whole area that I would be happy to help, this redrafting, and that's the secondary impacts on the very last page. T5-025

It is inconceivable to me that the State of New Mexico and the citizens of New Mexico would put in hundreds of millions of dollars and not expect a multiple of that in return for that investment over time, yet there are words saying in here -- and let me just read it for you.

Although the proposed action would result in beneficial economic impacts to the region by supporting facilitating limited growth -- limited T5-026

growth -- it would not induce growth. That's
bureaucratic doubletalk. Operation of the spaceport
would not support a substantial number of workers.

30

That may be initially in the five year period, but in
the outlying areas that may very well be different.
However -- construction however -- I'm sorry.
Construction would temporarily employ
large numbers of workers during peek construction.
However, these workers either would already live in the T5-026
region or would be transient workers and would have to
move once the construction -- the poplation movement
would not be affected.
Implementation of the project would
include development of all necessary infrastructure for
water. Thus, there would be no changes in demand for
public services, no strain on public service
infrastructure, and no induced expansion of existing
infrastructure. That's just a flat out lie.
That, in my opinion, is totally

unacceptable. There is potentially a significant amount of public infrastructure, like schools, if there are -- and these things should be addressed and should not be allowed to stand in this fashion.

So I strongly urge the framers of this to reconsider that one because nobody in his right mind would support -- and that includes the legislature and the citizens of Dona Ana County -- a more than $200,000,000 investment and not expect some economic benefit that is surviving this. Thank you. T5-026

MR. GRAVES: Is there anyone else who would like to speak this afternoon? Seeing none, I think we can conclude our public hearing this afternoon. And I would like to thank you for your time and attention today, and I'm sure that the FAA team will be here for a little while if you wish to talk to them a little bit in addition to the time that we spent a little bit earlier this afternoon. So thank you very much.

(Consultation off the record.)

MS. SMITH: I was curious to know that you all evaluate other such projects, spaceport projects in other parts of the country. She said yes. So I said, oh, I'm curious to know how many have you evaluated thus far? And that was the question I wanted to ask and I want to ask that publicly, really. And she told me how many, which was interesting. So sort of interesting to know what the status is and where they are because I was under the impression a lot were by the coast, which I think she substantiated that, and I think that affects, maybe, how viable this would be comparatively speaking. I would love to go up, but I would rather go up from the ocean.

(Proceedings concluded at 3:31 p.m.)

CERTIFICATE

I, Truenea Teasley, Certified Shorthand Reporter in and for the State of Texas, certify that

the foregoing is a correct transcription of the proceedings in the above-entitled matter.

I further certify that I am neither counsel for, related to, nor employed by any of the parties to the action in which this hearing was taken, and further, that I am not financially or otherwise interested in the outcome of the action.

Certified to on August 14, 2008.

_____
Truenea Teasley
Certificate No. 8719
Expires December 31, 2009
56706

Response to comments in Transcript 5:

T5-001

Thank you for this information. The description of the 7.2 kV line has been changed throughout the document to a distribution line.

T5-002

DOT has been added to the acronym list.

T5-003

Thank you for your comment. The NMSA has been made aware of your ideas.

T5-004

Thank you for your comment.

T5-005

Commercial launch vehicle operators are responsible for providing FAA with the flight hazard or operating area. The safety hazards would be analyzed as appropriate.

T5-006

Thank you for your comment.

T5-007

The potential impacts to hunting have been addressed in terms of recreational land use in Sections 3.1.4.5 and 4.1. Potential impacts to wildlife are presented in Section 4.8.

T5-008

The entrance road into the spaceport would use an existing county road.

T5-009

The analysis of potential impacts to wildlife does describe some impacts that would occur. However, because the FAA is the lead agency in the preparation of the EIS, the FAA's standard of significance is used to determine if the impacts are significant. The concerns of the cooperating agencies have been incorporated into the analysis of impacts.

T5-010

Section 4.8, Fish, Wildlife, and Plants discusses construction and operation impacts to wildlife in the proposed area.

T5-011

The previously planned 1,400 acres surrounding the runway and campus that would be fenced with high game fencing has been reduced to 695 acres to address the concerns of agencies and the public for removal of grassland from access by big game species. This area is required to be kept free of wildlife for safety and operational reasons. Although this fenced area would not be accessible to big game species, small animals and birds would still be able to access it. Other design measures have been included such as removing spectator areas and spectator parking areas from the proposed action, and utilizing busses to transport visitors.

The biological surveys found that the habitat within the proposed Spaceport America boundaries is marginal for Aplomado falcon. The USFWS determined that the proposed project "is not likely to jeopardize" the Aplomado falcon. Bird species of concern were considered in the biological surveys conducted and are addressed in the EIS.

T5-012

This model developed is an excellent example of wildlife research and a fine document. However, it does not indicate anything that is not already known for the project land and thus was not cited. The project land was assessed on the ground and determined to be of marginal quality. If the grasslands were more expansive, it would be higher quality habitat. Restoration of desert grassland communities on off-site lands is under consideration as a conservation measure to reduce construction/operation impacts on wildlife.

T5-013

Section 4.8.1.3 states that impacts from the construction and operation of Spaceport America would occur, but would not jeopardize the continued existence of special status plant or wildlife species. Impacts would not result in the destruction or adverse modification of designated critical habitat and would not be significant.

T5-014

Thank you for your comment.

T5-015

As described in the EIS, construction contractors would be required to implement the industry standard Best Management Practices for erosion control and to meet NPDES requirements. NMSA would oversee the contractors to ensure the standards are being met.

The FAA has committed to conducting nest surveys prior to construction to ensure that any active nests for migratory birds are moved or protected.

Transmission lines would be constructed in accordance with NMDGF guidelines for on-site and off-site construction of aboveground lines to reduce threats to avifauna, particularly raptors.

T5-016

The exclusion or security fenced area surrounding the runway and campus has been reduced from 1,400 acres to 695 acres in response to the concerns of agencies and the public regarding removal of grassland habitat from access by large mammals. This area is required to be kept free of wildlife for safety and operational reasons. Other design measures have been included such as removing spectator areas and spectator parking areas from the proposed action, and utilizing busses to transport visitors.

T5-017

Thank you for your comment.

The security fenced area surrounding the runway and campus has been reduced from 1,400 acres to 695 acres in response to the concerns of agencies and the public regarding removal of grassland habitat from access by large mammals. This area is required to be kept free of wildlife for safety and operational reasons. Other design measures have been included such as removing spectator areas and spectator parking areas from the proposed action, and utilizing busses to transport visitors.

T5-018

Thank you for your comment. The FAA considers the analysis of potential impacts to wildlife to be valid.

T5-019

Impacts to biological resources were determined using the significance thresholds defined by the FAA's Order 1050.1E, Change 1.

T5-020

Thank you for your comment. The analysis of potential impacts to wildlife was conducted per FAA Order 1050.1E, Change 1.

T5-021

Thank you for your comment.

T5-022

The proposed project site is not accessible from U.S. Highway 70.

T5-023

Appendix H discusses the transportation of hazardous materials for Spaceport America. All hazardous materials transport would meet DOT Hazardous Materials Regulations, 49 CFR Parts 171-173.

T5-024

The Los Angeles International Airport is not similar to the proposed Spaceport America as the airport had 600,666 operations (arrivals and departures) in 2007, an average of 1,645 daily. As described in EIS Section 2.1.3.3, the maximum or conservative estimate for launches is 757 horizontal launches and 125 vertical launches per year, or 2.4 roundtrip launches per day by year 2013. This is considerably less than the traffic seen at a major airport, or even the Albuquerque International Sunport. In addition, the ancillary activity that would go along with a suborbital launch would be very different from that associated with activities occurring at an airport. Due to the unique nature of the proposed operations at Spaceport America, there is no airport that is comparable.

T5-025

Spaceport America would use electricity for its power source. No gas line is proposed.

T5-026

The socioeconomic analysis conducted of the proposed project complies with FAA Order 1050.1E, Change 1 and CEQ regulations..

TRANSCRIPTION

OF

PUBLIC HEARING ON DRAFT

ENVIRONMENTAL IMPACT STATEMENT

FOR SPACEPORT AMERICA COMMERCIAL LAUNCH SITE

The following public hearing was held at the Dona Ana County Government Center, 845 North Motel Boulevard, Las Cruces, New Mexico 88007, at 6:30 p.m.

Transcript T6. Page 1 of 21

on Friday, August 8, 2008.

(56706)

MR. GRAVES: Good evening, and welcome to the public hearing on the Federal Aviation Administration draft environmental impact statement for the proposed Spaceport America commercial launch site in Sierra County, New Mexico. My name is Scott Graves, and I am a third party facilitator to assist the Federal Aviation Administration in running this public hearing tonight.

The purpose of the hearing is to gather comments from you on the potential environmental impacts that were analyzed for the proposed spaceport America. Typically what we've been doing is having,

like, a three part meeting. We'll have a short presentation and then an availability session for folks who are here to talk to the FAA team about the posters and any of the fact sheets and the information in the draft EIS, and then we open it up for public comments.

Can I get a quick show of hands for anybody interested in making a comment this evening? One, one person. Okay. Great. So what I think we'll do, just in terms of our schedule, is have about 15 minutes for availability for talking to the folks from FAA after the presentation that Stacey is going to do, and then we'll do public comments, and then we'll wrap things up for tonight.

If you need more information, there are fact sheets and comment sheets out on the registration desk, and Shana is out there, and she'll be happy to help you with those. So with that I would like to introduce Stacey Zee, an environmental specialist with the FAA.

MS. ZEE: Good evening. As Scott mentioned, I'm Stacey Zee. I'm an environmental specialist in the Office of Commercial Space Transportation at FAA. Also here from FAA tonight is Howard Searight who is our lead licensing specialist, Myles Hall who is the general counsel, and Dan Czelusniak, environmental. The TetraTech folks are also here in back. We have other support contractors and NMSA's here, too, so if you have any questions for us, we will be available at the posters afterwards.

We are holding a meeting tonight because the New Mexico Spaceport Authority proposes to develop and operate a commercial space launch site in Sierra County called Spaceport America. In order to operate a commercial launch site, NMSA must obtain a launch site operator license from FAA.

The FAA is responsible for preparing appropriate environmental documentation under the National Environmental Policy Act. As part of the NEPA

process, we are here to provide you information on the project and collect comments from you.

The FAA Office of Commercial Space Transportation is responsible for licensing commercial launches and reentries, and the operation of launch and reentry sites. This slide outlines the launch site operator license process.

The FAA conducts several reviews during the launch site operator license application evaluation before making a determination on the license. The review steps include a policy review, a launch site location review, a safety review, and an environmental review.

There's a fact sheet available at the registration table with additional information. Licensing the operation of a launch site is a major federal action, and as such is subject to the requirements of the National Environmental Policy Act.

NEPA declares a broad commitment to protect, restore and enhance the environment and requires that federal agencies consider the environmental consequences of their proposed actions.

Transcript T6. Page 5 of 21

As part of the environmental review portion of the licensing process, the FAA prepared an EIS to analyze potential environmental impacts associated with

licensing the proposed spaceport.

Under NEPA, the "environment" includes the physical and biological environment and human relations to the environment. The FAA is the lead federal agency responsible for the preparation of the EIS for the proposed Spaceport America. The FAA invited cooperating agencies based on their expertise and jurisdiction. The cooperating agencies on the EIS include the Bureau of Land Management, the National Park Service, the U.S. Army's White Sands Missile Range and NASA.

Offsite infrastructure to support Spaceport America will require a BLM right-of-way permit. BLM will use this EIS as the NEPA document for the permit application. The proposed action that is analyzed in the EIS is for the FAA to issue a launch

site operator license to NMSA that would allow the state to operate Spaceport America for suborbital launches of both horizontal and vertical launch vehicles.

The proposed action also includes the construction of infracture to support launch activities. The construction of infrastructure to support the launch site would take place on New Mexico State Trust Land, with the exception of improvements to

some existing access roads and installation of a power transmission line and fiber-optic cables to the site. This ifrastructure would cross a mix of State Trust, BLM and privately owned lands.

The proposed Spaceport America boundary would encompass approximately 26 square miles. The total area of land potentially disturbed by construction would be 970 acres, and the total area of the final facility's footprint would be 145 acres.

Operational activities that were analyzed

in this EIS include launch, landing and recovery of horizontal and vertical launch vehicles, ground-based tests, training and X Prize Cup events. Any vehicle operations that are not considered amateur activities as defined by the FAA would require a separate license or permit from the FAA.

These activities would be subject to an evaluation process similar to the one being undertaken now to evaluate the launch site operator license. This means that a separate environmental and safety review would be required for any other license or permit applications for vehicle operations.

The EIS identifies and considers reasonable alternatives to accomplish the purpose and need of the proposed action. The alternatives analyzed

in the EIS include two alternatives and the no action alternative. Under alternative 1, the FAA would consider issuing a launch site operator license for the operation of a commercial launch site for launches of

horizontal launch vehicles. In this scenario, the full vertical launch complex would not be built.

Under alternative 2, the FAA would consider issuing a launch site operator license for the operation of a site for launches of vertical launch vehicles. In this case, the vertical launch complex would be built, but the airfield facilities would be more limited than those under the proposed action.

The no action alternative would be for the FAA to not license the operation of the proposed Spaceport America. Under the no action alternative, facilities to support commercial launch operations would not be built and current amateur launch activities would continue in the area. Alternatives not considered forward for further analysis in the EIS include alternative suborbital and orbital launch vehicles, alternative sites and alternative site layouts.

This slide outlines the impact categories that the FAA analyzed in the draft EIS per the requirements of NEPA and FAA's regulations. Categories

include compatible land use, noise, air quality and many others. Please keep in mind that just because an item appears on this list does not mean that a significant impact is expected to that resource area.

The FAA has determined that the proposed action would impact historic properties. Physical damage to historic resources could occur and the proposed action could result in changes to the settings in which the resources are located. Visual and noise impacts could also impact historic properties.

The FAA plans to work with cooperating agencies, affected parties and the State of New Mexico to develop measures to avoid, minimize or mitigate the adverse effects to historic properties. The FAA is also developing a Memorandum of Agreement that outlines the mitigation measures.

Now that I've provided an overview of the EIS, I will now discuss the EIS schedule and how you can remain involved. The EIS process started in

January 2006 when the FAA published a Notice of Intent in the Federal Register to prepare an EIS. The FAA held two scoping meetings in February 2006 to collect initial public input on potential environmental impacts from the proposed project.

Since that time, the FAA has been

developing the draft EIS, which was finalized and distributed to agencies and the public in June 2008. On July 3rd, the Environmental Protection Agency published a Notice of availability of the draft EIS in the Federal Register.

This started the required 45 day public comment period, which ends on August 18th. The FAA will develop a final EIS that addresses and responds to comments received on the draft EIS. The FAA anticipates publishing the final EIS in November 2008 and will mail it to the distribution list. No sooner than 30 days after the final EIS is published, the FAA will issue a Record of Decision for the proposed

project, which is expected to occur in December.

Please note that successful completion of the environmental review process with a Record of Decision does not guarantee that the FAA will issue a launch site operator license. The project must still meet all FAA safety, risk and indemnification requirements.

Now, I'm going turn the floor back over to Scott. As he mentioned earlier, we will be available to answer any questions.

MR. GRAVES: Thanks, Stacey. Just a couple of administrative points before we get started.

First, if you would like to provide a statement tonight, please sign in on the registration sheets outside. Also, if you would like to be added to the EIS mailing list, please also sign up at the registration table.

We do have a court reporter here this evening, and her purpose here is to ensure that we

capture all comments accurately. If you would like to provide a comment but do not wish to speak in front of an audience, the court reporter will record your comments after everyone else has finished speaking.

The purpose of this hearing tonight, as we mentioned earlier, is to collect your comments and thoughts on the project. Therefore, FAA will not be responding directly to your comments today. FAA will address comments in the final EIS.

There are a number of ways, in addition to providing comments here tonight, that you can submit comments for the record. We do have comment sheets that are available out at the registration desk, and you can certainly take one or more of those and submit them via mail. You can mail your comments, fax your comments or e-mail your comments. And the relevant address information is on the fax sheet that's available at the registration desk.

Please note, as Stacey mentioned, that

all comments must be submitted to FAA by Monday, August 18th, 2008. And just a couple of reminders if you plan to speak here this evening. We do ask that you please come up to the podium and speak. State your name. And if you are representing an organization, please also state the name of your organization.

So with that, I would like to invite the FAA team to move over to the posters, and we'll take 15 minutes. We have a relatively small number of folks here tonight -- 15 minutes to ask questions, clarify points, talk about the posters, and then we'll have a public comment period.

And when those are finished, we will conclude for the evening. So we'll take 15 minutes. I've got about ten minutes until 7:00 at this point so at five minutes after 7:00. Thank you.

(A recess was taken.)

MR. GRAVES: Let's reconvene, please. So earlier we had at least one person who raised their hand. I think it was Ms. Smith. Would you like to come up and make your comments?

MS. SMITH: I'm Tamie Smith. I'm going

to ask a couple of questions, which I realize you can't answer now, but I would like them on the record. I

would like to know how many projects similar to this Spaceport have you all approved or at least done EISs on, and where they are. I would like to know what the turnout has been in the other two counties. I understand we had a better turnout here, which is nice to know.

I'm interested in why am I attending this meeting. What is the meaning of this public meeting? T6-001
For example, there are a lot of -- I came to the earlier meeting today and there were a lot of comments made and some good input, especially on the wildlife and animals and so forth that exist in this area.

And I'm sort of curious to know if that input is taken and accepted and the changes that have been asked for are made, that's fine, but suppose they aren't made and suppose this is approved, what recourse does the public have if they would like to further

contest. T6-001

I wish that there was a more detailed map here. I would like to have seen -- I know it's on the website, but it would have been much nicer to have had that. And the only other thing I would like to comment on is that I don't know who handled the publicity for this. I think the notification should have been much more extensive than it was. T6-002

I attended a meeting after I left here this afternoon. I attended a metropolitan district meeting at city hall, and there were about four staffers there and a committee of about seven people, and so I announced your meeting tonight, and they did not know what I was talking about so I had to explain it and urge them to come.

UNIDENTIFIED SPEAKER: That's not quite true.

MS. SMITH: Were you there? Thank you for coming, the only one. I really felt this was

terribly important, not necessarily for or against the Spaceport, but I don't believe there's a handful of people in Las Cruces who have any idea of what an EIS is or what it entails.

And I found the information that I received on the computer was just really, really fascinating. I thought I knew about that stuff until I started reading that 500 page document and only got to 300 pages, but anyhow I want to thank you all for sending that out and for conducting this meeting.

And I hope to get an answer sometime to the questions that I've raised. Thank you.

MR. GRAVES: Thank you. Is there anybody else who wishes to speak this evening?

MS. TATUM: My name is Sandra Tatum. I'm from Radium Springs, and I was here for the afternoon meeting so the issues I brought up are on record and they are very significant to me as is what I'm going to mention this evening that the initiative for the

project is state driven.

And I would like -- I know that when we are addressing the EIS, we are dealing with parameters of impact that are determined that may not actually address the realities as we see them here in New Mexico.

Our large spaces, our spread out, small population, our land that does not seem to have designated use to many people, it actually is, to quote Scott Momaday in his recent program on PBS called The Remembered Earth, he speaks of all elements of the lifeforms that hold us together as -- that's our real community. And judging those things in relationship to each other is where we really get a picture of impact. T6-003

My reference to this being a state-driven project is to address the possibility of our state officials going to bat for us to say, yeah, the parameters for the EIS that determine it's archeologically significant if it's a site but not if there is information to be gathered from data.

I would like a reflection perhaps from state people that the research in our area that is significant to new theories of migration, grouping that goes way way back to the -- to further than our theories of the Bering Strait migration and research that is challenging old theories. That hasn't been done yet and it will be lost.

The El Camino Real is really interesting, but it's way closer in history than the part that is really mysterious and wonderful and all around us in these big spaces. I would also like to mention that the Rio Grande rift is a very significant feature in this area, and we aren't the -- the proposed location is not very far actually from Caballo Reservoir, from the small communities that have lived with the changing weather and the rise and fall of water.

T6-004

And I think those are factors that need to come into play when we relate all the information from the sources that we evaluate for impact. Thank you very much.

MR. GRAVES: Thank you. Is there anybody else who wishes to speak tonight? If not, then I think we're adjourned. Thank you very much for attending, and we look forward to working with you.

(Proceedings concluded at 7:19 p.m.)

CERTIFICATE

I, Truenea Teasley, Certified Shorthand Reporter in and for the State of Texas, certify that the foregoing is a correct transcription of the proceedings in the above-entitled matter.

I further certify that I am neither counsel for, related to, nor employed by any of the parties to the action in which this hearing was taken, and further, that I am not financially or otherwise interested in the outcome of the action.

Certified to on August 14, 2008.

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Truenea Teasley
Certificate No. 8719
Expires December 31, 2009
56706

Transcript T6. Page 21 of 21

Response to comments in Transcript 6:

T6-001

The FAA has issued six Launch Site Operator Licenses for the following launch sites: Kodiak Launch Complex, Kodiak, AK; Mojave Air and Space Port, Mojave, CA; California Spaceport, Vandenberg, CA; Oklahoma Spaceport, Burns Flat, OK; Mid-Atlantic Regional Spaceport, Wallops Island, VA; Space Florida, Cape Canaveral, FL. NEPA documents were completed before the licenses were issued.

There were eight members of the public who attended the Alamogordo afternoon hearing and two who attended the evening hearing. There were 17 members of the public at the Truth or Consequences afternoon hearing and 11 at the evening hearing. There were 27 members of the public at the afternoon hearing in Las Cruces and seven at the evening hearing.

The purpose of the public hearings is to collect comments from the public on the analysis conducted and findings presented in the EIS. All comments are considered and responded to. Some result in a change to the EIS and some do not.

The public can submit comments to the FAA regarding the project at any time. The Final EIS will be sent to everyone who has requested a copy. There is a mandatory 30-day waiting period, during which the public is welcome to submit comments to the FAA, before the FAA can issue its Record of Decision. You can find additional guidance on opportunities for public involvement in the NEPA process in the Council on Environmental Quality's publication *A Citizen's Guide to the NEPA: Having Your Voice Heard*, which is available on the internet at http://ceq.hss.doe.gov/nepa/Citizens_Guide_Dec07.pdf.

T6-002

Thank you for your comment.

T6-003

Thank you for your comment.

T6-004

The analysis of cultural resources in Sections 3.5 and 4.5 considers not only the potential impact to El Camino Real, but also to the prehistoric archaeological resources found in the proposed project area. Many of these resources have been determined to be eligible for listing on the National Register of Historic Places by the FAA. The resolution of adverse effects to these prehistoric resources is included in the Programmatic Agreement contained in Appendix P.

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APPENDIX O
COOPERATING AGENCY MEMORANDA OF AGREEMENT

The Federal Aviation Administration (FAA) entered into Memoranda of Agreement (MOAs) with each of the four cooperating agencies: Bureau of Land Management, National Park Service, White Sands Missile Range, and National Aeronautics and Space Administration. These MOAs are presented in this appendix.

MEMORANDUM OF AGREEMENT
BETWEEN

FEDERAL AVIATION ADMINISTRATION
OFFICE OF COMMERCIAL SPACE TRANSPORTATION
AND
LAS CRUCES DISTRICT OFFICE,
BUREAU OF LAND MANAGEMENT,
U.S. DEPARTMENT OF INTERIOR

FOR THE
ENVIRONMENTAL IMPACT STATEMENT
FOR THE SOUTHWEST REGIONAL SPACEPORT

1. Introduction and Purpose

a. The Federal Aviation Administration's Office of Commercial Spaceport Transportation (FAA/AST) is responsible for licensing launches of launch vehicles and the operation of launch facilities pursuant to the Commercial Space Launch Act (as amended) of 1984 (49 U.S.C. 70101-70121). FAA/AST is in the beginning stages of developing an Environmental Impact Statement (EIS as required by the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality (CEQ) Regulation for Implementing the Procedural Provisions of NEPA, and FAA Order 1050.1E, Environmental Impacts: Policies and Procedures.

b. The U.S. Department of the Interior, Bureau of Land Management, Las Cruces District Office (BLM) is responsible for management of portions of land around the Southwest Regional Spaceport (SRS). Federal Land Policy and Management Act of 1976 (FLPMA) requires BLM to manage the natural resources on public lands. Since the SRS will involve public lands for rights-of-ways, BLM has agreed to participate as a cooperating agency for the preparation of the EIS. Should the scope of the proposal change, where the BLM would have a greater permitting role, the BLM would need to review its status as a cooperating agency.

c. The purpose of this Memorandum of Agreement (MOA) is to establish an agreement between FAA/AST and BLM regarding the conditions and procedures to be followed in preparing an EIS that complies with applicable laws and regulations through a joint FAA/AST and BLM effort. FAA/AST is the lead Federal agency for the project and BLM will be a cooperating agency.

d. BLM agrees, that the analysis in the EIS will describe potential environmental impacts associated with land use and proposed decisions regarding management of the natural resources on public land associated with the SRS.

2. General Provisions

a. As the lead Federal agency in this cooperative effort to prepare an EIS, FAA/AST is ultimately responsible for assuring compliance with the requirements of NEPA.

b. FAA/AST will select an appropriate organization to perform as the third-party contractor for the EIS. The contract will be administered by the FAA/AST. Factors that will be considered in contractor selection will include the following general criteria:

(1) Expertise in the areas of environmental concern, including water quality, ground water resources, biology, soils, land uses, air quality, archaeology, and socioeconomic values.

(2) Expertise in preparing EISs for launch operation activities.

(3) Ability to produce environmental analyses, demonstrated through experience or expertise.

(4) Ability to produce thorough, concise, readable, and informative documents.

(5) Evidence of a good working knowledge of NEPA, corresponding Federal and State regulations and other statutory requirements.

(6) Ability to complete work in a timely manner.

c. The EIS contractor will be required to execute a disclosure statement specifying that it has no financial or other interest in the outcome of the project.

d. FAA/AST and the EIS contractor are responsible for identifying and complying with Federal, State, and local laws, regulations, and other authorities that are applicable to completion of the project.

e. FAA/AST will ensure that the EIS contractor will provide any technical and environmental information, data, and reports required for document preparation in a format suitable to both agencies.

f. FAA/AST and BLM shall:

(1) Designate a single point of contact on all matters concerning the EIS preparation.

(2) Develop a mutually acceptable time schedule for project milestones and review periods.

(3) Attend meetings with Federal, State, regional, and local agencies and interested individuals and groups for the purpose of increasing communication and receiving comments on the project.

(4) Ensure cooperative coordination of efforts and exchange of information with the EIS contractor.

3. Procedures

a. FAA/AST will advise BLM of all significant EIS events, meetings or milestones within a reasonable time prior to any scheduled event, meeting or milestone.

b. FAA/AST and the EIS contractor will share the responsibility for scoping meetings and public hearings. The EIS contractor and FAA/AST will make meeting arrangements and prepare all materials necessary for the meetings. BLM will attend as an agency representative.

c. FAA/AST, assisted by its EIS contractor, is responsible for printing and distributing the Scoping Summary Report, Draft EIS, and Proposed Final EIS.

d. FAA/AST will release the Draft EIS to the public and to Federal, State, and local agencies for review and comment. FAA/AST will be responsible for filing the document with the U.S. Environmental Protection Agency (EPA). A public comment period of no less than 45 calendar days will been initiated when the EPA publishes the "Notice of Availability" of the Draft EIS in the Federal Register.

e. FAA/AST will be the recipient of all comments on the Draft EIS resulting from the review and comment period. FAA/AST will provide copies of all comments to BLM throughout the comment period. As appropriate, FAA/AST and BLM will consider and address any comments on the Draft EIS.

f. After the close of the Draft EIS review and comment period, FAA/AST and BLM will discuss what issues and comments submitted by the public and Federal, State, and local agencies will require response in the Proposed Final EIS. FAA/AST and BLM will determine through consultation if any modifications to the text will be required. Any such modifications will be incorporated in the Proposed Final EIS by FAA/AST and the EIS contractor.

g. Upon revision of the text, which will include responses to the comments on the Draft EIS, FAA/AST and BLM will review the Draft Proposed Final EIS. BLM will have 30 days for the initial review; subsequent reviews will be completed on a mutually agreeable schedule. FAA/AST will file the Proposed Final EIS with the EPA.

4. Dispute Resolution

a. Both parties agree that if a dispute regarding the provisions of this MOA arises, efforts will be made to settle them amicably at the lowest possible level. If efforts to settle at the lowest level are unsuccessful, then the dispute will be elevated to the next higher level of management

within each agency. If the next higher level of management for each agency is unable to resolve the dispute, then the dispute will be elevated to the next higher level still, and will continue to be elevated within the agencies until the dispute is resolved.

b. If a dispute concerns substantive environmental issues addressed in the EIS rather than procedural issues covered by this MOA, BLM has the option of referring an interagency disagreement to the President's Council on Environmental Quality (CEQ), consistent with the CEQ regulations implementing NEPA, Title 40, Code of Federal Regulations, Part 1504. However, it is recognized that such a referral is reserved as a last resort, when agencies have exhausted all reasonable efforts to resolve a dispute.

5. Termination

Each party to this MOA may terminate this agreement after 30 days prior notice, in writing, to the other party. During the intervening 30 days, the parties agree to actively attempt to resolve any disputes or disagreements.

6. Duration of Agreement

This MOA is effective on the date all parties have signed and will terminate when a ROD is issued, unless terminated earlier pursuant to Section 5 above.

FOR THE FEDERAL AVIATION ADMINISTRATION, OFFICE OF COMMERCIAL SPACE TRANSPORTATION:

DATE: 6/20/06

SIGNED: Herbert Bachner
Director, Space Systems Development Division
Office of Commercial Space Transportation

FOR THE BUREAU OF LAND MANAGEMENT:

DATE: June 9, 2006

SIGNED: Edward L. Roberson
Manager, Las Cruces District Office
Bureau of Land Management

MEMORANDUM OF AGREEMENT
BETWEEN

FEDERAL AVIATION ADMINISTRATION
OFFICE OF COMMERCIAL SPACE TRANSPORTATION
AND
INTERMOUNTAIN REGION,
NATIONAL PARK SERVICE,
U.S. DEPARTMENT OF INTERIOR

FOR THE
ENVIRONMENTAL IMPACT STATEMENT
FOR THE SOUTHWEST REGIONAL SPACEPORT

1. Introduction and Purpose

a. The Federal Aviation Administration's Office of Commercial Spaceport Transportation (FAA/AST) is responsible for licensing launches of launch vehicles and the operation of launch facilities pursuant to the Commercial Space Launch Act (as amended) of 1984 (49 U.S.C. 70101-70121). FAA/AST is in the beginning stages of developing an Environmental Impact Statement (EIS) to analyze the potential impacts of issuing a launch site operator license to the New Mexico Economic Development Department for the operation of the Southwest Regional Spaceport (SRS). The EIS is being prepared as required by the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality (CEQ) Regulation for Implementing the Procedural Provisions of NEPA, and FAA Order 1050.1E, Environmental Impacts: Policies and Procedures.

b. The U.S. Department of the Interior, National Park Service (NPS), Intermountain Region is responsible for the co-administration of the El Camino Real de Tierra Adentro National Historic Trail. Because the proposed launch site has the potential to impact the National Historic Trail, NPS has agreed to participate as a cooperating agency for the preparation of the EIS.

c. The purpose of this Memorandum of Agreement (MOA) is to establish an agreement between FAA/AST and NPS regarding the conditions and procedures to be followed in preparing an EIS that complies with applicable laws and regulations through a joint FAA/AST and NPS effort. FAA/AST is the lead Federal agency for the project and NPS will be a cooperating agency.

2. General Provisions

a. As the lead Federal agency in this cooperative effort to prepare an EIS, FAA/AST is ultimately responsible for assuring compliance with the requirements of NEPA.

b. FAA/AST will select an appropriate organization to perform as the third-party contractor for the EIS. The contract will be administered by the FAA/AST. Factors that will be considered in contractor selection will include the following general criteria:

(1) Expertise in the areas of environmental concern, including water quality, ground water resources, biology, soils, land uses, air quality, archaeology, and socioeconomic values.

(2) Expertise in preparing EISs for launch operation activities.

(3) Ability to produce environmental analyses, demonstrated through experience or expertise.

(4) Ability to produce thorough, concise, readable, and informative documents.

(5) Evidence of a good working knowledge of NEPA, corresponding Federal and State regulations and other statutory requirements.

(6) Ability to complete work in a timely manner.

c. The EIS contractor will be required to execute a disclosure statement specifying that it has no financial or other interest in the outcome of the project.

d. FAA/AST and the EIS contractor are responsible for identifying and complying with Federal, State, and local laws, regulations, and other authorities that are applicable to completion of the project.

e. FAA/AST will ensure that the EIS contractor will provide any technical and environmental information, data, and reports required for document preparation in a format suitable to both agencies.

f. FAA/AST and NPS shall:

(1) Designate a single point of contact on all matters concerning the EIS preparation.

(2) Develop a mutually acceptable time schedule for project milestones and review periods.

(3) Attend meetings with Federal, State, regional, and local agencies and interested individuals and groups for the purpose of increasing communication and receiving comments on the project.

(4) Ensure cooperative coordination of efforts and exchange of information with the EIS contractor.

3. Procedures

a. FAA/AST will advise NPS of all significant EIS events, meetings or milestones within a reasonable time prior to any scheduled event, meeting or milestone.

b. FAA/AST and the EIS contractor will share the responsibility for scoping meetings and public hearings. The EIS contractor and FAA/AST will make meeting arrangements and prepare all materials necessary for the meetings. NPS will attend as an agency representative.

c. FAA/AST, assisted by its EIS contractor, is responsible for printing and distributing the Scoping Summary Report, Draft EIS, and Proposed Final EIS.

d. FAA/AST will release the Draft EIS to the public and to Federal, State, and local agencies for review and comment. FAA/AST will be responsible for filing the document with the U.S. Environmental Protection Agency (EPA). A public comment period of no less than 45 calendar days will been initiated when the EPA publishes the "Notice of Availability" of the Draft EIS in the Federal Register.

e. FAA/AST will be the recipient of all comments on the Draft EIS resulting from the review and comment period. FAA/AST will provide copies of all comments to NPS throughout the comment period. As appropriate, FAA/AST and NPS will consider and address any comments on the Draft EIS.

f. After the close of the Draft EIS review and comment period, FAA/AST and NPS will discuss what issues and comments submitted by the public and Federal, State, and local agencies will require response in the Proposed Final EIS. FAA/AST and NPS will determine through consultation if any modifications to the text will be required. Any such modifications will be incorporated in the Proposed Final EIS by FAA/AST and the EIS contractor.

g. Upon revision of the text, which will include responses to the comments on the Draft EIS, FAA/AST and NPS will review the Draft Proposed Final EIS. NPS will have 30 days for the initial review; subsequent reviews will be completed on a mutually agreeable schedule. FAA/AST will file the Proposed Final EIS with the EPA.

4. Dispute Resolution

a. Both parties agree that if a dispute regarding the provisions of this MOA arises, efforts will be made to settle them amicably at the lowest possible level. If efforts to settle at the lowest level are unsuccessful, then the dispute will be elevated to the next higher level of management within each agency. If the next higher level of management for each agency is unable to resolve the dispute, then the dispute will be elevated to the next higher level still, and will continue to be elevated within the agencies until the dispute is resolved.

b. If a dispute concerns substantive environmental issues addressed in the EIS rather than procedural issues covered by this MOA, NPS has the option of referring an interagency disagreement to the President's Council on Environmental Quality (CEQ), consistent with the CEQ regulations implementing NEPA, Title 40, Code of Federal Regulations, Part 1504. However, it is recognized that such a referral is reserved as a last resort, when agencies have exhausted all reasonable efforts to resolve a dispute.

5. Termination

Each party to this MOA may terminate this agreement after 30 days prior notice, in writing, to the other party. During the intervening 30 days, the parties agree to actively attempt to resolve any disputes or disagreements.

6. Duration of Agreement

This MOA is effective on the date all parties have signed and will terminate when a ROD is issued, unless terminated earlier pursuant to Section 5 above.

FOR THE FEDERAL AVIATION ADMINISTRATION, OFFICE OF COMMERCIAL SPACE TRANSPORTATION:

DATE: June 20, 2006

SIGNED: Hq Lmb Boecker
Director, Space Systems Development Division
Office of Commercial Space Transportation

FOR THE NATIONAL PARK SERVICE:

DATE: July 17, 2006

SIGNED: Jose L Krakow
Superintendent, Intermountain Region, National Trails System
National Park Service
JLK

MEMORANDUM OF AGREEMENT
BETWEEN

FEDERAL AVIATION ADMINISTRATION
OFFICE OF COMMERCIAL SPACE TRANSPORTATION
AND
WHITE SANDS MISSILE RANGE,
U.S. DEPARTMENT OF THE ARMY,
U.S. DEPARTMENT OF DEFENSE

FOR THE
ENVIRONMENTAL IMPACT STATEMENT
FOR THE SOUTHWEST REGIONAL SPACEPORT

1. Introduction and Purpose

a. The Federal Aviation Administration's Office of Commercial Spaceport Transportation (FAA/AST) is responsible for licensing launches of launch vehicles and the operation of launch facilities pursuant to the Commercial Space Launch Act (as amended) of 1984 (49 U.S.C. 70101 to 70121). FAA/AST is in the beginning stages of developing an Environmental Impact Statement (EIS) to analyze the potential impacts of issuing a launch site operator license to the New Mexico Economic Development Department for the operation of the Southwest Regional Spaceport (SRS). The EIS is being prepared as required by the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality (CEQ) Regulation for Implementing the Procedural Provisions of NEPA, and FAA Order 1050.1E, Environmental Impacts: Policies and Procedures.

b. The U.S. Army, White Sands Missile Range (WSMR) is responsible for administering the airspace in which operations from the proposed SRS would occur. Because there are issues and concerns that the EIS will address, including use of airspace under WSMR's control, WSMR has agreed to participate as a cooperating agency for the preparation of the EIS.

c. The purpose of this Memorandum of Agreement (MOA) is to establish an agreement between FAA/AST and WSMR regarding the conditions and procedures to be followed in preparing an EIS that complies with applicable laws and regulations through a joint FAA/AST and WSMR effort. FAA/AST is the lead Federal agency for the project, and WSMR will be a cooperating agency.

2. General Provisions

a. As the lead Federal agency in this cooperative effort to prepare an EIS, FAA/AST is ultimately responsible for assuring compliance with the requirements of NEPA.

b. FAA/AST will select an appropriate organization to perform as the third-party contractor for the EIS. The contract will be administered by the FAA/AST. Factors that will be considered in contractor selection will include the following general criteria:

(1) Expertise in the areas of environmental concern, including water quality, ground water resources, biology, soils, land uses, air quality, archaeology, and socioeconomic values.

(2) Expertise in preparing EISs for launch operation activities.

(3) Ability to produce environmental analyses, demonstrated through experience or expertise.

(4) Ability to produce thorough, concise, readable, and informative documents.

(5) Evidence of a good working knowledge of NEPA, corresponding Federal and State regulations, and other statutory requirements.

(6) Ability to complete work in a timely manner.

c. The EIS contractor will be required to execute a disclosure statement specifying that it has no financial or other interest in the outcome of the project.

d. FAA/AST and the EIS contractor are responsible for identifying and complying with Federal, State, and local laws, regulations, and other authorities that are applicable to completion of the project.

e. FAA/AST will ensure that the EIS contractor will provide any technical and environmental information, data, and reports required for document preparation in a format suitable to both agencies.

f. FAA/AST and WSMR shall:

(1) Designate a single point of contact on all matters concerning the EIS preparation.

(2) Develop a mutually acceptable time schedule for project milestones and review periods.

(3) Meet, as appropriate, with Federal, State, regional, and local agencies and interested individuals and groups for the purpose of increasing communication and receiving comments on the project.

(4) Ensure cooperative coordination of efforts and exchange of information with the EIS contractor.

g. WSMR shall participate as fully as possible based on its role as a cooperating agency and subject to the availability of funds.

3. Procedures

a. FAA/AST will advise WSMR of all significant EIS events, meetings or milestones within a reasonable time prior to any scheduled event, meeting or milestone.

b. FAA/AST and the EIS contractor will share the responsibility for scoping meetings and public hearings. The EIS contractor and FAA/AST will make meeting arrangements and prepare all materials necessary for the meetings. WSMR will attend as appropriate for a cooperating agency.

c. FAA/AST, assisted by its EIS contractor, is responsible for printing and distributing the Scoping Summary Report, Draft EIS, and Proposed Final EIS.

d. FAA/AST will release the Draft EIS to the public and to Federal, State, and local agencies for review and comment. FAA/AST will be responsible for filing the document with the U.S. Environmental Protection Agency (EPA). A public comment period of no less than 45 calendar days will be initiated when the EPA publishes the "Notice of Availability" of the Draft EIS in the Federal Register.

e. FAA/AST will be the recipient of all comments on the Draft EIS resulting from the review and comment period. FAA/AST will provide copies of all comments to WSMR throughout the comment period. As appropriate, FAA/AST and WSMR will consider and address any comments on the Draft EIS.

f. After the close of the Draft EIS review and comment period, FAA/AST and WSMR will discuss what issues and comments submitted by the public and Federal, State, and local agencies will require response in the Proposed Final EIS. FAA/AST and WSMR will determine through consultation if any modifications to the text will be required. **Any** such modifications will be incorporated in the Proposed Final EIS by FAA/AST and the EIS contractor.

g. Upon revision of the text, which will include responses to the comments on the Draft EIS, FAA/AST and WSMR will review the Draft Proposed Final EIS. WSMR will have 30 days for the initial review; subsequent reviews will be completed on a mutually agreeable schedule. FAA/AST will file the Proposed Final EIS with the EPA.

4. Dispute Resolution

a. Both parties agree that if a dispute regarding the provisions of this MOA arises, efforts will be made to settle them amicably at the lowest possible level. If efforts to settle at the lowest level are unsuccessful, then the dispute will be elevated to the next higher level of management within each agency. If the next higher level of management for each agency is unable to resolve the dispute, then the dispute will be elevated to the next higher level still, and will continue to be elevated within the agencies until the dispute is resolved.

b. If a dispute concerns substantive environmental issues addressed in the EIS rather than procedural issues covered by this MOA, WSMR has the option of referring an interagency disagreement to the President's Council on Environmental Quality (CEQ), consistent with the CEQ regulations implementing NEPA, Title 40, Code of Federal Regulations, Part 1504. However, it is recognized that such a referral is reserved as a last resort, when agencies have exhausted all reasonable efforts to resolve a dispute.

5. Termination

Each party to this MOA may terminate this agreement after 30 days prior notice, in writing, to the other party. During the intervening 30 days, the parties agree to actively attempt to resolve any disputes or disagreements.

6. Duration of Agreement

This MOA is effective on the date all parties have signed and will terminate when a ROD is issued, unless terminated earlier pursuant to Section 5 above.

FOR THE FEDERAL AVIATION ADMINISTRATION, OFFICE OF COMMERCIAL SPACE TRANSPORTATION:

DATE: Sept 11, 2006

SIGNED: Herbert Bachner
Director, Space Systems Development Division
Office of Commercial Space Transportation

FOR WHITE SANDS MISSILE RANGE:

DATE: 6 Sep 2006

SIGNED:
GARY D. GIEBEL
Colonel, U.S. Army, Commanding
U.S. Army Garrison, White Sands Missile Range

MEMORANDUM OF AGREEMENT
BETWEEN

FEDERAL AVIATION ADMINISTRATION
OFFICE OF COMMERCIAL SPACE TRANSPORTATION
AND
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

FOR THE
SPACEPORT AMERICA ENVIRONMENTAL IMPACT STATEMENT

1. Introduction and Purpose

a. The Federal Aviation Administration's Office of Commercial Spaceport Transportation (FAA/AST) is responsible for licensing launches of launch vehicles and the operation of launch facilities pursuant to the Commercial Space Launch Act (as amended) of 1984 (49 U.S.C. 70101-70121). FAA/AST is developing an Environmental Impact Statement (EIS) to analyze the potential impacts of issuing a launch site operator license to the New Mexico Economic Development Department for the operation of the proposed Spaceport America. The EIS is being prepared as required by the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality (CEQ) Regulation for Implementing the Procedural Provisions of NEPA, and FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*.

b. The National Aeronautics and Space Administration (NASA) requested to act as a cooperating agency on the EIS. NASA will provide special expertise with respect to environmental issues concerning space launch vehicles and the operation of a launch site.

c. The purpose of this Memorandum of Agreement (MOA) is to establish an agreement between FAA/AST and NASA regarding the conditions and procedures to be followed in preparing an EIS that complies with applicable laws and regulations through a joint FAA/AST and NASA effort. FAA/AST is the lead Federal agency for the project and NASA will be a cooperating agency.

2. General Provisions

a. As the lead Federal agency in this cooperative effort to prepare an EIS, FAA/AST is ultimately responsible for assuring compliance with the requirements of NEPA.

b. FAA/AST selected an appropriate organization to perform as the third-party contractor for the EIS. Factors that were considered in contractor selection will include the following general criteria:

(1) Expertise in the areas of environmental concern, including water quality, ground water resources, biology, soils, land uses, air quality, archaeology, and socioeconomic values.

(2) Expertise in preparing EISs for launch operation activities.

(3) Ability to produce environmental analyses, demonstrated through experience or expertise.

(4) Ability to produce thorough, concise, readable, and informative documents.

(5) Evidence of a good working knowledge of NEPA, corresponding Federal and State regulations and other statutory requirements.

(6) Ability to complete work in a timely manner.

c. The EIS contractor was required to execute a disclosure statement specifying that it has no financial or other interest in the outcome of the project.

d. FAA/AST and the EIS contractor are responsible for identifying and complying with Federal, State, and local laws, regulations, and other authorities that are applicable to completion of the project.

e. FAA/AST will ensure that the EIS contractor will provide any technical and environmental information, data, and reports required for document preparation in a format suitable to both agencies.

f. FAA/AST and NASA shall:

(1) Designate a single point of contact on all matters concerning the EIS preparation.

(2) Develop a mutually acceptable time schedule for project milestones and review periods.

(3) Attend meetings with Federal, State, regional, and local agencies and interested individuals and groups for the purpose of increasing communication and receiving comments on the project.

(4) Ensure cooperative coordination of efforts and exchange of information with the EIS contractor.

3. Procedures

a. FAA/AST will advise NASA of all significant EIS events, meetings or milestones within a reasonable time prior to any scheduled event, meeting or milestone.

b. FAA/AST and the EIS contractor will share the responsibility for scoping meetings and public hearings. The EIS contractor and FAA/AST will make meeting arrangements and prepare all materials necessary for the meetings. NASA will attend as an agency representative.

c. FAA/AST, assisted by its EIS contractor, is responsible for printing and distributing the Scoping Summary Report, Draft EIS, and Proposed Final EIS.

d. FAA/AST will release the Draft EIS to the public and to Federal, State, and local agencies for review and comment. FAA/AST will be responsible for filing the document with the U.S. Environmental Protection Agency (EPA). A public comment period of no less than 45 calendar days will been initiated when the EPA publishes the "Notice of Availability" of the Draft EIS in the Federal Register.

e. FAA/AST will be the recipient of all comments on the Draft EIS resulting from the review and comment period. FAA/AST will provide copies of all comments to NASA throughout the comment period. As appropriate, FAA/AST and NASA will consider and address any comments on the Draft EIS.

f. After the close of the Draft EIS review and comment period, FAA/AST and NASA will discuss what issues and comments submitted by the public and Federal, State, and local agencies will require response in the Proposed Final EIS. FAA/AST and NASA will determine through consultation if any modifications to the text will be required. Any such modifications will be incorporated in the Proposed Final EIS by FAA/AST and the EIS contractor.

g. Upon revision of the text, which will include responses to the comments on the Draft EIS, FAA/AST and NASA will review the Draft Proposed Final EIS. NASA will have 30 days for the initial review; subsequent reviews will be completed on a mutually agreeable schedule. FAA/AST will file the Proposed Final EIS with the EPA.

4. Dispute Resolution

a. Both parties agree that if a dispute regarding the provisions of this MOA arises, efforts will be made to settle them amicably at the lowest possible level. If efforts to settle at the lowest level are unsuccessful, then the dispute will be elevated to the next higher level of management within each agency. If the next higher level of management for each agency is unable to resolve the dispute, then the dispute will be elevated to the next higher level still, and will continue to be elevated within the agencies until the dispute is resolved.

b. If a dispute concerns substantive environmental issues addressed in the EIS rather than procedural issues covered by this MOA, NASA has the option of referring an interagency disagreement to the President's Council on Environmental Quality (CEQ), consistent with the CEQ regulations implementing NEPA, Title 40, Code of Federal Regulations, Part 1504. However, it is recognized that such a referral is reserved as a last resort, when agencies have exhausted all reasonable efforts to resolve a dispute.

5. Termination

Each party to this MOA may terminate this agreement after 30 days prior notice, in writing, to the other party. During the intervening 30 days, the parties agree to actively attempt to resolve any disputes or disagreements.

6. Duration of Agreement

This MOA is effective on the date all parties have signed and will terminate when a ROD is issued, unless terminated earlier pursuant to Section 5 above.

FOR THE FEDERAL AVIATION ADMINISTRATION, OFFICE OF COMMERCIAL SPACE TRANSPORTATION:

DATE: 08/03/2007

SIGNED: Ken Gidlow
Ken Gidlow
Acting Director, Space Systems Development Division
FAA/AST

FOR THE NATIONAL AERONAUTICS AND SPACE ASSOCIATION:

DATE: 20 Aug 07

SIGNED:
James Leatherwood
Director, Environmental Management Division
NASA Headquarters

N: Correspondence Letter: AST-100: 20070720 MOA FAA_NASA on SRS EIS Rev1.STACEY.doc

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APPENDIX P
PROGRAMMATIC AGREEMENT TO RESOLVE ADVERSE EFFECTS TO HISTORIC PROPERTIES

The Federal Aviation Administration (FAA) has developed a Programmatic Agreement (PA) to resolve the anticipated adverse effects to historic properties from the proposed Project. The PA was developed in consultation with the New Mexico State Historic Preservation Officer, the Advisory Council on Historic Preservation, and the consulting parties for the National Historic Preservation Act, Section 106 process. The PA defines the processes, roles, and responsibilities for development of mitigation plans to resolve adverse effects that would occur to historic properties as a result of the proposed Project. The PA has been submitted to the Section 106 consulting parties for review and signature. The draft PA is presented in this appendix in its entirety. The PA will be finalized and signed before the FAA signs the Record of Decision. The signed PA will be mailed to the agencies, tribes, organizations, and private citizens listed in Section 8 and will be posted on FAA's website at ast.faa.gov.

PROGRAMMATIC AGREEMENT
AMONG
THE FEDERAL AVIATION ADMINISTRATION,
BUREAU OF LAND MANAGEMENT, NEW MEXIO STATE LAND OFFICE,
NEW MEXICO SPACEPORT AUTHORITY,
NEW MEXICO STATE HISTORIC PRESERVATION OFFICER,
AND, ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE
SPACEPORT AMERICA PROJECT,
SIERRA COUNTY, NEW MEXICO

WHEREAS, the Federal Aviation Administration (FAA) Office of Commercial Space Transportation, is evaluating a Launch Site Operator License application from the New Mexico Spaceport Authority (NMSA or licensee), pursuant to 14 Code of Federal Regulation (CFR) part 420, for the development and operation of a commercial space launch site in the Jornada del Muerto basin, New Mexico (the Project or Spaceport America), as described in Attachment 1; and

WHEREAS, the Project, pending approval, would expand existing vertical launch capabilities that already exist, and would include construction of a horizontal runway and additional vertical launch facilities, storage and maintenance areas, and visitor amenities; and

WHEREAS, the initial FAA license to operate the facility would be valid for five (5) years, is subject to the terms and conditions of the license, and is renewable upon application by the licensee; and

WHEREAS, the FAA is the lead agency for complying with Section 106 of the National Historic Preservation Act (NHPA) as amended (16 USC 470f), and Section 110 of the same Act (16 USC 470h-2(f)), and the regulations implementing Section 106 of the Act (36 CFR Part 800); and

WHEREAS, the FAA has prepared the following technical reports in its evaluation of the proposed Project: (1) *Draft Environmental Impact Statement for the Spaceport America Commercial Launch Site, Sierra County, New Mexico*; (2) *Cultural Resources Survey of 2,720 Acres for the Proposed Spaceport America, Sierra County, New Mexico*; and (3) *Cultural Resources Survey of 463 Acres of Offsite Fiber Optics and Transmission Lines, Sierra County, New Mexico,* which includes an addendum report in Appendix E entitled *Cultural Resource Survey of 181 Acres of Water Well Field and Pipeline and Transmission Line Corridors for Proposed Spaceport America, Sierra County, New Mexico*; and these technical reports provide supporting information to this Programmatic Agreement (PA); and

WHEREAS, the New Mexico State Land Office (NMSLO) owns in fee the property on which the Spaceport America facilities would be constructed and has entered into a lease agreement to NMSA of their portion of the project area; and

WHEREAS, the Bureau of Land Management (BLM) manages Federal property on which offsite infrastructure to support the Spaceport America facility would be constructed and maintains responsibilities under Section 110 of NHPA to provide for preservation of resources on those lands; and

WHEREAS, the BLM, pending FAA approval of the Launch Site Operator License application, would issue permits for the infrastructure rights-of-way, an undertaking with responsibilities under Section 110, as well as a permit for excavation under the Archeological Resources Protection Act (ARPA) of 1979 (16 U.S.C. 470 aa-mm) and its regulations (43 CFR 7), all constituting Federal undertakings by BLM; and

WHEREAS, the FAA has consulted with the New Mexico State Historic Preservation Officer (NMSHPO), the Signatories, and the Consulting Parties (see Appendix A) to this Agreement on the effects of the Project on historic properties eligible for the National Register of Historic Places (NRHP); and

WHEREAS, the FAA, in consultation with the NMSHPO, established two Areas of Potential Effect (APE) for the Project as provided at 36 CFR Part 800.4(a) and Part 800.16(d), which include the Physical APE, comprised of the areas that may be directly effected by physical ground disturbance and construction of facilities, and the Setting APE, comprised of the area within five miles of the facility wherein potential visual and audible effects to historic property setting may occur, as described in the EIS and shown in Exhibits 1A-E; and

WHEREAS, the FAA, in consultation with the NMSHPO, identified the following nine tribes as potentially having religious or cultural affiliation with the Project area and provided each of them with information about the project: the Comanche Indian Tribe, Fort Sill Apache Tribe of Oklahoma, Hopi Tribe, Isleta Pueblo, Kiowa Tribe of Oklahoma, Mescalero Apache Tribe, Navajo Nation, White Mountain Apache Tribe, and Ysleta del Sur Pueblo, and tribes were provided opportunities to participate in site visits to the Project area and participate in the Section 106 process, as described in Appendix B, and will continue to be consulted regarding determinations and effects related to actions taken under this Agreement; and

WHEREAS, the following are Consulting Parties in the Section 106 process (see Appendix A), have been provided information about the Project and opportunities to comment on the potential Project effects, as described in Appendix C, and will be asked to review and sign this agreement as Concurring Parties: National Aeronautics and Space Administration (NASA); White Sands Missile Range (WSMR); National Park Service (NPS); New Mexico Department of Transportation (NMDOT); Sierra County; National Trust for Historic Preservation (NTHP); New Mexico Heritage Preservation Alliance (NMHPA); El Camino Real de Tierra Adentro Trail Association (CARTA); Ysleta del Sur Pueblo; Comanche Tribe; Hopi Tribe; Mr. Dennis Wallin (representative for the private property owners); and

WHEREAS, the public has been provided opportunities to comment on the Undertaking and participate in the Section 106 process, first in FAA's publication of the Notice of Intent in the Federal Register on January 23, 2006 (71 FR 3915), through public scoping meetings in 2006 and public hearings in 2008 as part of the NEPA process, and through a 45 day review and

comment period for the Draft EIS, and the FAA has considered the public's comments in development of this Agreement; and

WHEREAS, the NMSA has used the Spaceport America Planning and Design Advisory Committee (SAPDAC) forum to hear the concerns of Cooperating Agencies and Consulting Parties in regard to potential visual effects of the proposed Spaceport America facilities on the landscape, and has responded by taking measures in the design of facility components to minimize potential visual impacts of facilities including placement of 15 miles of power distribution lines underground, design of the main runway to follow natural topographic contours, and design of the terminal hangar according to aesthetic criteria that will minimize the impact to viewers; and

WHEREAS, the FAA has undertaken efforts to identify historic properties eligible for listing on the NRHP and has identified 64 archaeological, architectural, and other cultural resources and 622 isolated occurrences of artifacts within the Physical APE, of which 47 have been determined eligible for listing on the NRHP, 13 are undetermined and considered potentially eligible, and the remaining four determined not eligible; the visual and audible APE (referred to as the Setting APE) includes 16 resources, 15 that are eligible, and one that has undetermined eligibility, some of these resources also occur in the Physical APE; in addition, a collection of four historic properties, including archaeological deposits, architectural buildings and structures and a water control feature have been grouped together to form the Aleman Draw Historic District, which is partially within the Physical APE and entirely within the Setting APE; a complete listing of these historic properties is included as Attachment 2 in this Agreement; and

WHEREAS, the FAA submitted a final Determination of Effect to the NMSHPO August 26, 2008, and submitted the same determination to all Signatories to this Agreement and Consulting Parties listed in Appendix A for review and comment, and concurrence with the FAA's findings were received from the NMSHPO, BLM, and NMSLO September 18, 2008; and

WHEREAS, the FAA, in consultation with the parties listed above, determined that the Spaceport America project will have an Adverse Effect on historic properties, as identified in (1) the technical reports, (2) the FAA's August 26, 2008 Determination, and (3) the summary table Attachment 2; and may have an effect on additional historic properties, yet to be identified, including archaeological sites, historic structures, and traditional cultural properties that are eligible for inclusion in the National Register of Historic Places (NRHP), which could be encountered as a result of activities related to implementation of the Project; and

WHEREAS, the El Camino Real de Tierra Adentro National Historic Trail (NHT), established by Congress in the National Trails System Act (16 USC 1641) and jointly managed by NPS and BLM, is partially located within the two Project APE's and constitutes a portion of the properties that would be adversely effected by the Project; and

WHEREAS, the Project, if constructed, would have adverse effects to known archaeological sites, including but not limited to: LA8871, LA51204, LA51205, LA80070, LA111420, LA111422, LA111432, LA111435, LA112372, LA155962, LA155963, LA155964, LA155968, LA155969, LA155971, LA155972, LA155973, LA156861, LA156862, LA156863, LA156864,

LA156865, LA156869, LA156870, LA156872, LA156873, LA156874, LA156875, LA156876, LA156877, LA156878 and LA156879; and

WHEREAS, the Project would effect eight (8) additional archaeological sites, identified during survey, for which NRHP eligibility cannot be determined without additional investigation using invasive and potentially destructive procedures, including but not limited to: LA111421, LA112367, LA112370, LA112371, LA112374, LA155970, LA156866, and LA156867; and

WHEREAS, the FAA has determined there would be impacts to the setting of historic properties within the Setting APE, including but not limited to: the Aleman Draw Historic District, LA80070, LA110405, LA110403, LA110404, LA80054, LA80053, LA110401, LA80052/80072, LA110400, LA110402, LA80071, LA111000, and the Atchison Topeka & Santa Fe (AT&SF) Railroad; and

WHEREAS, the FAA has determined there would be impacts to the setting of the Goetz Ranch, a private property within the Setting APE, which was identified during survey but which requires additional investigation and research to determine NRHP eligibility; and

WHEREAS, the FAA has provided the Signatories and Consulting Parties numerous opportunities for discussing the resolution of effects to historic properties through avoidance, minimization, and mitigation measures, including Consulting Party site visits in September 2007, June 2008, and August 2008, meetings of the Signatories in December 2007 and April 2008, and a final determination of eligibility with comment period in August 2008 (see Appendix C); and

WHEREAS, mitigation plans are being developed that take into consideration the comments provided, and are designed to resolve adverse effects to historic properties; and

WHEREAS, New Mexico statute NMAC 4.10.16 regulates Test Excavation, which must be conducted under an approved Test Excavation plan, the procedures for evaluating sites with undetermined eligibility are being developed in Testing Plans and will be included as part of the mitigation plans; and

WHEREAS, this Agreement has been developed, pursuant to 36 CFR 800.14(b) to govern the implementation of a program for the resolution of adverse effects on known historic properties, as well as the completion of assessment, determinations of eligibility and effect, and the resolution of adverse effects as necessary for historic properties whose eligibility cannot be determined prior to approval of the undertaking, or in the event that unanticipated discoveries are encountered during construction or operation of the Project; and

WHEREAS, the FAA, BLM, NMSHPO, and ACHP are Signatories pursuant to 36 CFR 800.6(c)(1) and have authority to execute, amend or terminate this Agreement; and

WHEREAS, the NMSA, as the Applicant for the Launch Site Operator's License, and NMSLO as a state property managing agency, are Invited Signatories pursuant to 36 CFR 800.6(c)(2) and have the same rights to execute, amend or terminate this Agreement as the Signatories, and are included in all references in this document to the "Signatories;" and

WHEREAS, the Consulting Parties, listed above and in Appendix 1, have been consulted on eligibility and effect determinations and mitigation measures, have been asked to participate in the development of this Agreement, and will be asked to review and concur with this Agreement pursuant to 36 CFR 800.6(c)(3); and

WHEREAS, the FAA invited the Advisory Council on Historic Preservation (ACHP) to participate in consultation over this undertaking by letter dated September 2, 2008; the ACHP agreed to enter into consultation with the FAA by letter dated September 10, 2008; and this Agreement is evidence that the FAA and BLM have afforded the ACHP an opportunity to comment on the findings; and

WHEREAS, the procedures in this Agreement are designed to ensure that identification and evaluation of historic properties, assessments of effects, and development of treatment and mitigation plans, and the implementation of mitigation procedures are properly coordinated and completed, and that this Agreement will thereby govern completion of the Section 106 process required of FAA and BLM; and

WHEREAS, the FAA will require NMSA to implement the construction and operation phases of the Project in accordance with the stipulations outlined in this Agreement as signed by FAA, BLM, NMSLO, NMSA, NMSHPO, and ACHP through the terms and conditions of the Launch Site Operator License, the regulations of which specifically state (14 CFR 420.41(a)) that: "A license to operate a launch site authorizes a licensee to operate a launch site in accordance with the representations contained in the licensee's application, with terms and conditions contained in any license order accompanying the license, and subject to the licensee's compliance with 49 U.S.C. subtitle IX, chapter 701 and this chapter," and further, as stated in 14 CFR 405.3(b), "The FAA may suspend or revoke any license or permit issued to such licensee or permittee under [these laws] if the FAA finds that a licensee or permittee has substantially failed to comply with any requirement of the Act, any regulation issued under the Act, the terms and conditions of a license or permit, or any other applicable requirement...;" and

WHEREAS, the New Mexico Department of Cultural Affairs and NMSLO have drafted a Memorandum of Understanding (MOU) on their intention to jointly develop a management plan for the portions of the Camino Real de Tierra Adentro National Historic Trail that pass through state owned land; and

WHEREAS, on June 17, 2008 the NMSLO granted BLM a right-of-way over a 5.7 mile strip of land owned by the State of New Mexico, which is within the Project’s easement but outside the proposed facility boundaries, for the purpose of establishing a primitive recreational trail on the NHT; and

WHEREAS, the Spaceport America facility, if approved and constructed, is expected to be operated by NMSA on a long-term basis, and NMSA will incur management responsibilities for historic properties within the facility boundaries;

NOW, THEREFORE the FAA, BLM, NMSLO, NMSA, NMSHPO, and ACHP agree that the Project will be implemented in accordance with the following stipulations in order to take into account the effects of the Project on historic properties:

STIPULATIONS

The FAA and BLM, in coordination with NMSA, shall ensure that the following measures are carried out:

I. Professional Qualifications:

a. Professional qualifications. All work carried out pursuant to this Agreement shall be carried out by or under the direct supervision of qualified individuals meeting the federal qualifications in the discipline appropriate to the properties being treated, as established by the Secretary of the Interior and published in 36 CFR Part 61, Appendix A, as well as New Mexico state standards for qualified individuals specified in Title 4 ("cultural Resources") of the state regulations, specifically: 4.10.8 NMAC; 4.10.11 NMAC; and 4.10.14-17 NMAC.

b. Standards and guidelines. All cultural resource work pursuant to this Agreement shall be consistent with NHPA (16 USC 470), ARPA (16 USC 470aa-mm), and the Native American Graves Protection and Repatriation Act (NAGPRA, 25 USC 3001 et seq.), and carried out in accordance with the following standards and guidelines, as applicable:

i. The Secretary of Interior: *Standards and Guidelines for Archeology and Historic Preservation* (1983) (48 FR 44716-44742).

ii. BLM Manual Supplement H-8100-1, *Procedures for Performing Cultural Resource Fieldwork on Public Lands in the Area of New Mexico BLM Responsibilities*.

iii. Advisory Council on Historic Preservation: *Treatment of Archeological Properties: A Handbook* (1980), and the *ACHP Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects,* dated February 23, 2007.

iv. National Register Bulletin 15 - *Guidelines for Applying the National Register Criteria for Evaluation*,

v. New Mexico standards for archaeological survey (NMAC 4.10.15), excavation (NMAC 4.10.16, excavation of human burials (NMAC 4.10.11), mechanical excavation (NMAC 4.10.14), and monitoring (NMAC 4.10.17).

vi. Permit stipulations required by BLM or NMSLO for fieldwork on their land, and as stipulated in NMAC 4.10.8 or by the New Mexico Cultural Properties Review Committee (CPRC).

c. Curation. All materials resulting from work carried out pursuant to this Agreement shall be curated in accordance with 36 CRF Part 79 and the New Mexico state standards (NMAC 4.10.8.19).

II. Tribal Consultation Protocols:

a. The Native American tribal consultation process for the proposed Spaceport America project, for which the activities conducted are summarized in Appendix B to date, shall continue under this Agreement.

b. Tribal Consulting Parties, including but not limited to the Ysleta del Sur Pueblo, Comanche Tribe, and Hopi Tribe, will be given the opportunity to review and comment on any draft plan or report associated with the Section 106 undertaking, including mitigation plans, consistent with Stipulation V. In addition, tribal Consulting Parties will be contacted individually by the FAA and given the opportunity to provide comments and concerns regarding any resources and their treatment confidentially.

c. For determinations of adverse effect made subsequent to implementation of this Agreement, resources with an undetermined eligibility, or in the event of unanticipated discoveries, the FAA, and BLM on BLM land, shall consult with all nine tribes recognized as potentially having connections to the Project area, and those who are not already Consulting Parties to this Agreement shall be afforded the opportunity at that time to become a Consulting Party and to provide comment on the resolution of effects.

d. The FAA, and BLM on BLM land, shall consult with tribes to agree upon a procedure for notifying and consulting with tribes in the event of a discovery of human remains and/or funerary objects, and will include these protocols in the unanticipated discoveries plan described in Stipulation XI.

e. Cultural resource sensitivity training for the construction workforce, described in detail in Stipulation IX(c), will include sensitivity to the concerns of tribes and, if so requested, a tribal representative may meet with construction personnel to present material in person to the workforce.

III. Identification and Evaluation of Properties with Undetermined Eligibility:

a. Historic properties with undetermined eligibility, including but not limited to the Goetz Ranch, archaeological sites LA111421 and LA112367 in the area of the utility corridor, sites LA112370, LA112371, and LA112374 in the area of the access road and utility corridor, site 155970 in the area of the runway, and LA156866 and LA156867 in the area of the fiber optic line shall be evaluated to determine their eligibility for the NRHP.

i. The scope of archaeological evaluation work shall be established in Test Excavation plans and approved by the NMSHPO and the New Mexico CPRC prior to implementation, as required by NMAC 4.10.16.

ii. If testing will affect less than five (5) percent of a site Testing plans can be developed under a general permit for review by the SHPO without the involvement of the CPRC.

b. The FAA shall make determinations of eligibility for these sites, applying the National Register criteria as described in 36 CFR 800.4(c)(1), and shall seek concurrence according to the procedures in Stipulation IV(a)(i).

c. If NMSA makes modifications of, or additions to, the planned construction of the Spaceport America facility the FAA shall review the proposed plans, pursuant to 14 CFR 420, as well as the agency's responsibilities under NHPA, Section 106 of that Act, and this Agreement.

i. If it is determined that additional survey is necessary to identify historic properties, the procedures for identification will follow those described in 36 CFR 800.4, including requisite consultation with NMSHPO, tribes, and Consulting Parties, and New Mexico standards cited in Stipulation I.

ii. If the FAA determines, through additional survey, that historic properties will be affected, the procedures for assessment and treatment shall follow the Stipulations of this Agreement, including the assessments of effect (Stipulation IV), and development of treatment measures (Stipulation V).

IV. Assessments of Eligibility and Effect:

a. Upon completion of evaluations of sites listed in Stipulation III(a), or if unanticipated discoveries are encountered (see Stipulation XI), or if potentially affected properties are identified through survey, the FAA shall assess the resources and make determinations of eligibility and effect in the following manner:

i. If the FAA determines that resources are not eligible for the NRHP, the agency shall distribute documentation of their finding of *No Historic Properties Affected* to all Signatories and Consulting Parties to this Agreement for review and comment. Pursuant to 36 CFR 800.4(d), if no objection is entered within fifteen (15) days, concurrence with the finding shall be presumed.

ii. If the FAA determines that historic properties would be affected, the agency shall assess the effects according to the procedures in 36 CFR 800.5 and 800.6, including consultation with the NMSHPO, Consulting Parties, and tribes in evaluating methods to avoid, minimize, or mitigate adverse effects.

1) The FAA shall distribute a determination of eligibility and effect to all Signatories and Consulting Parties to this Agreement for a fifteen (15) day review and comment period.

2) All comments received regarding the resolution of adverse effects to historic properties, and measures to avoid, minimize, or mitigate effects, shall be taken into

consideration by the FAA, and the agency shall attempt to resolve any conflicting comments through continued consultation or, if necessary, through appeal to the ACHP as described in Stipulation XIII(c).

3) If consultation on effects determines that mitigation is necessary, the procedures described in Stipulation V shall be followed.

V. Mitigation Plan Development and Coordination:

a. Under this Agreement NMSA has responsibility for developing plans and submitting them to FAA for approval, including mitigation plans for known historic properties as well as any plans that may be required as a result of survey and evaluation described in Stipulation III or monitoring described in Stipulation X.

b. Based on the information gathered from Consulting Party meetings and discussions considering measures to resolve effects, mitigation plans will be prepared, in consultation with all Signatories and Consulting Parties describing the efforts, expectations, and reporting of measures designed to mitigate adverse effects of construction and operation of the proposed Project.

c. Mitigation Plans shall recommend appropriate mechanisms for resolving the effects of the proposed Project, taking into account the range and types of historic properties that would be affected and the kind of effect, giving careful consideration to the extent of information that can be effectively gathered and the research methodologies necessary, and making arguments supporting the level of investigation and how the activities address historic preservation concerns and goals. For example, data recovery may not be the appropriate treatment for all archaeological sites, but should be one component of an overall approach to investigating material evidence and site context with the goal of understanding settlement patterns in the region. The following are examples of the kinds of considerations that could be included in mitigation plans:

i. Historic research. Research into the historical elements of the Project area could include, but is not limited to: Frontier exploration and settlement along the Camino Real de Tierra Adentro National Historic Trail; the role of the Aleman Ranch within the regional settlement history; the impacts of transportation and rail development on the region; and changing patterns of Native American settlement and use of the region. Potential repositories of historical data, including University holdings; the National Archives; Historic American Engineering Record (HAER) Collections; census data; General Land Office records; and local historical newspapers may be searched for information on the Project area, including but not limited to the Aleman Draw Historic District, the Camino Real de Tierra Adentro Trail, and the Burlington Northern Santa Fe rail line (formerly the AT&SF).

ii. Prehistoric research. Mitigation plans could outline prehistoric research themes relevant to the known and reasonably expected resources of the area that will be researched, including but not limited to: development of chronology and cultural

histories; the interaction of settlement, land use, and subsistence practices in the region; and the dynamics of trade, interaction, and economy.

d. The following procedures shall be followed with regard to development, review, and approval of mitigation plans:

i. Drafts of all mitigation plans shall be distributed by the FAA to the Signatories and Consulting Parties to this Agreement for a fifteen (15) day review and comment period.

ii. Mitigation plans shall address and resolve adverse effects to eligible properties.

1) To the extent practicable plans should group sites and resources by research theme and method of investigation, so as to facilitate consideration of effects and mitigation measures and to minimize the review process asked of the Parties.

iii. Comments from the various parties on mitigation plans shall be compiled into a single document with responses and circulated to all Signatories and Consulting Parties.

iv. All comments on mitigation plans shall be taken into consideration by the FAA, under the acknowledgement that NMSLO and BLM have primary land managing responsibilities for portions of the Project area, and that plans for archaeological fieldwork on state land must be submitted to the state's CPRC review process for approval. The FAA shall attempt to resolve any conflicting comments through continued consultations or, if necessary, through appeal to the ACHP as described in Stipulation XIII(c).

v. The FAA shall proceed unless an objection to a plan is distributed to the Signatories and Consulting Parties in writing within the fifteen day review period.

vi. The FAA shall approve the plans and notify NMSA, and the Signatories and Consulting Parties of approval.

vii. NMSA has primary responsibility for implementation of plans.

e. Mitigation plans involving archaeological testing and data recovery on NMSLO land shall be submitted to the state CPRC, and obtain the appropriate approvals and permits required of the CPRC, the BLM, and NMSLO prior to commencement of fieldwork.

f. Monitoring activities, described in Stipulation X, must be considered and coordinated with mitigation planning as described in this Stipulation, as well as construction planning and implementation described in Stipulation VII.

g. If it is necessary for NMSA to make changes to the fieldwork or other actions presented in the mitigation plans, NMSA shall send a letter or email to the FAA, NMSHPO, and appropriate land

managing agency(ies) that explains the proposed deviation; this would be subject to a five (5) day review and comment period. If these parties concur with the proposed changes, or fail to provide notification of an objection to the proposed deviation within the five (5) day review period, NMSA will implement the proposed changes. If a timely objection is made, the FAA, in consultation with NMSHPO and appropriate land managing agency(ies), will take the objection into account before notifying NMSA of its approval or denial of the proposed deviations.

h. Consideration of "creative mitigation" to address adverse visual and auditory effects to historic property settings shall begin within two (2) years of the execution of this Agreement through submission to all Signatories and Consulting Parties of a draft plan, an outline, or some other plan of action.

i. NMSA shall coordinate with BLM and NPS on interpretive historic products related to the El Camino Real de Tierra Adentro National Historic Trail managed by those agencies, including sharing of research data related to the NHT.

j. NMSA shall designate interpretive spaces, such as display cases for exhibition, within the Spaceport America offsite visitor centers. These interpretive spaces will be accessible to visitors and will provide information on the prehistory and history of the area.

VI. Design Review:

a. The design of facilities shall consider, to the extent practicable, the criteria developed during the collaborative input process created by the SAPDAC meetings, through which the primary site infrastructure, terminal and hangar facility (THF) and the aircraft rescue and fire-fighting facility (ARFF) were developed, which include:

i. Design criteria
   1) low-profile design
   2) sloped elevations to break up sight lines
   3) use of non-reflective materials on surfaces
   4) natural berms to mask the visual imposition of a structure
   5) use of natural colors to blend structures into the surroundings to the extent practicable
   6) strategic use of texture, height, distance, and orientation in design and siting to minimize visual impairment of the setting
   7) use of vegetation to blend structures into the surroundings
   8) following natural contours to minimize the contrast of topographic relief
   9) burying components underground, where appropriate
   10) use of lighting that meets requirements of the New Mexico Night Sky Protection Act.

b. NMSA shall provide plans for structures and signage, during the schematic design stage, or approximately 20 percent design, to the Signatories and Consulting Parties for their review and comment.

c. The Signatories and Consulting Parties shall provide comments to NMSA within fifteen (15) days.

VII. Construction Management and Protection Planning:

a. Potential direct physical adverse effects of construction on historic properties or portions of historic properties shall be minimized by use of protective fencing around sites. The placement of fencing shall be designed so that construction activities do not inadvertently impact historic properties, or to minimize the extent of impacts as follows:

i. NMSA shall fence archaeological sites, or portions of sites, located within 100 feet (ft) of the construction area limits to protect against inadvertent impacts. NMSA will consult with NMSLO and BLM to determine the type and duration of fencing. NMSA shall inspect fencing daily during construction and repair when necessary.

ii. NMSA shall provide an archaeologist who meets the qualifications specified in Stipulation I of this Agreement who shall be present to monitor installation and/or removal of fencing as needed.

1) In undisturbed areas within archaeological sites, fence and marker placement and/or removal shall be conducted by hand to avoid/minimize damage within the sites. Fencing materials and associated equipment will be hand-carried on undisturbed portions of archaeological sites.

2) Placement of fencing will be designed to avoid inadvertent impacts to sites, and shall precede any construction in the vicinity.

iii. No provision of this section will apply to archaeological site LA 112382, which has been destroyed by previous construction.

b. Construction procedures shall follow best management practices during construction to, including use of erosion control methods and silt fences, to minimize the potential for construction activities to indirectly effect historic properties.

c. NMSA shall provide cultural resource sensitivity training to the Spaceport America workforce as follows:

i. Training efforts shall apply to NMSA employees, construction contractors and subcontractors, and launch operators working within the facility. The training program will include a brief presentation on cultural sensitivity, how to avoid inadvertent impacts to archaeological sites within the Project area, tribal concerns, and what to do in the event of an inadvertent discovery.

ii. The training will be developed and approved by the field supervisor overseeing the archaeological data recovery, or a designee with similar status and knowledge regarding the project and the area's cultural resources.

iii. For construction activities, training can be limited to field supervisors, environmental monitors, or other similar supervisory grade personnel, provided they assume written responsibility for conveying the information to all their supporting staff working within the Project area.

iv. During operation of the facility the cultural sensitivity training shall be administered to visitors and launch operators as part of their site safety and operation materials.

v. A clause regarding this cultural resource training program and the ramifications of violations of procedures shall be included in all relevant contract documents issued for the Project, including subcontracts.

vi. Documentation of the implementation of this training program shall be provided to the FAA as part of the reporting procedures described in Stipulation XIII(a).

VIII. Measures to Minimize Other Indirect Effects:

a. NMSA will minimize potential vehicular impacts to the surrounding area during facility operations by providing bus transportation for events and launches.

b. During facility operations, NMSA may implement "launch-free times," during which no launch or landing activities will take place at the facility. "Launch-free times" would be made publicly known, through an online calendar of events, or other reasonably accessible means, to facilitate planning by stakeholders in the region.

c. Security and safety lighting for the Project has been designed to keep lighting impacts to a minimum, including the use of only downward facing "apron" perimeter lighting for buildings, a facility design with no runway lights, and no night-time launches in the operational protocols, and NMSA would continue this standard by using lighting products and designs that are consistent with the standards of the International Dark-Sky Association (IDA, 2002).

d. NMSA shall coordinate with NMSLO and the New Mexico Department of Cultural Affairs regarding their initiative to develop a management plan for portions of the NHT on state land. Amendments may be made to this Agreement, if necessary, to accommodate that planning and management process.

IX. Monitoring:

a. The following procedures shall be followed with regard to development, review, and approval of monitoring activities:

i. The planning of monitoring activities should be an integral element of the mitigation planning process and coordinated with the activities of construction and mitigation as appropriate.

ii. Monitoring personnel and procedures shall conform to the applicable state and federal guidelines in Stipulation I, including the New Mexico Standards for Monitoring (NMAC 4.10.17), which requires all archaeological monitoring be performed under a permit approved by the CPRC.

b. Monitoring may be considered 1) as a means of assuring site protection measures, and 2) in instances when construction activities are being conducted in an archaeological site or other cultural property where there is a high probability of finding subsurface features and deposits, and shall be carried out according to the follow the procedures:

i. In cases where monitoring to assure avoidance or protection measures is conducted under a general permit, as described in NMAC 4.10.17.8(A)(1), NMSA will have primary responsibility for preparation of monitoring reports.

ii. In cases where monitoring is proposed to oversee land-disturbing construction activities, monitoring plans shall be prepared for approval by the CPRC, as appropriate, according to NMAC 4.10.17.

iii. Drafts of all monitoring plans shall be distributed by the FAA to the Signatories and Consulting Parties to this Agreement for a fifteen (15) day review and comment period.

iv. Comments from the various parties on monitoring plans shall be compiled into a single document with responses and circulated to all Signatories and Consulting Parties.

v. All comments on monitoring plans shall be taken into consideration by the FAA, under the acknowledgement that NMSLO and BLM have primary land managing responsibilities for portions of the Project area, and that plans for monitoring on state land must be submitted to the state's CPRC review process for approval. The FAA shall attempt to resolve any conflicting comments through continued consultations or, if necessary, through appeal to the ACHP as described in Stipulation XIII(c).

vi. Unless an objection to a plan is distributed to the Signatories and Consulting Parties in writing within the fifteen day review period, agreement with the plans shall be presumed.

vii. The FAA shall have the responsibility for approval of monitoring plans, and will notify NMSA and the Signatories and Consulting Parties of approval.

viii. NMSA has primary responsibility for implementation of plans.

c. Any proposed modifications to monitoring plans shall be carried out according to the procedures described in Stipulation V(g).

X. Education and Interpretation:

a. The results of the historic and prehistoric research, as well as archaeological investigations, will be summarized in final technical reports, as required by NMAC 4.10.16 and as described in Stipulation XIII.

b. A short popular summary of the excavations suitable for distribution in a newspaper, newsletter, or magazine shall be prepared by NMSA as described in NMAC 4.10.16.16. This popular report will provide information to the interested general public about the state's heritage and how excavations at the Spaceport America facilities contribute to that research.

c. Additional forms of disseminating research may include, but are not limited to, the development of synthesis documents for professional or public audiences, if warranted by the research, and development of a documentary film.

XI. Post-Review Discoveries:

a. Prior to the start of construction activities NMSA shall develop an Unanticipated Discoveries Plan. The Unanticipated Discoveries plan may be part of the Mitigation Plans, shall be developed in consultation as described for mitigation plans in Stipulation V, and shall describe procedures to be taken in the event that previously unidentified resources are discovered within the APE. The Unanticipated Discoveries Plan shall include provisions for the unanticipated discovery of human remains, which shall coincide with state and federal provisions for discovery of human burials including NMAC 4.10.11, and the Native American Graves Protection and Repatriation Act (25 USC 3001 et seq, and amendments).

b. If the FAA, as lead agency, determines that a newly identified resource is an eligible historic property, the procedures described in Stipulation IV *Assessments of Eligibility and Effect* will be followed.

c. If Native American human remains and/or funerary goods are discovered, the FAA, and BLM on BLM land, will consult with the nine tribes recognized as having connections to the Project area. All burial sites, human remains and funerary objects shall be treated with dignity and respect at all times. The Section 106 process shall follow the steps for post-review discoveries described in 36 CFR 800.13 and Stipulation XIII.

XII. Long-Term Management:

a. This Agreement shall be in effect for the five (5) year period of the Launch Site Operator License, unless amended.

i. If NMSA applies to the FAA to modify their license, the FAA shall review the Section 106 process and determine if potential amendments to this Agreement are necessary.

ii. If necessary, as described above, the FAA and BLM shall undertake a review of the Section 106 process being carried out under this Agreement in consultation with the Signatories and Consulting Parties by notifying them in writing of potential changes.

iii. If such a review of the Section 106 process under this Agreement does not coincide with a scheduled Consulting Party meeting, such as an annual meeting described in Stipulation XIII, the FAA shall hold a separate meeting of Consulting Parties to provide information on changes and amendments.

b. At the end of the five year period of their Launch Site Operators License, if NMSA applies to renew the license, NMSA will provide FAA, NMSHPO, and other Signatories and Consulting Parties a cultural resources management plan (CRMP) that describes how Spaceport America's historic properties will be preserved and managed, or the FAA shall seek to renew this Agreement through consultation with the Signatories and Consulting Parties.

XIII. Administrative Stipulations:

a. The reporting required of this Agreement shall conform to the following protocols:

i. Progress reports. Progress reports shall be submitted quarterly by NMSA to the FAA for the duration of this Agreement following its execution. Progress reports may be in letter format and shall describe fieldwork activities for historic properties as well as relevant construction progress that was initiated, underway, or completed for the most recent performance period, and identify steps to be initiated, continued, or completed in the next month.

1) Progress summaries shall be submitted by the FAA to the NMSHPO, BLM, and NMSLO every six months for the duration of this Agreement. The first progress summary shall be distributed six months following execution of this Agreement, with subsequent summaries following each six months thereafter. The progress summaries shall identify steps initiated, underway, or completed for the most recent performance period and identify steps to be initiated, continued, or completed in the next six month period.

ii. Preliminary field reports. Preliminary reports on the progress of archaeological fieldwork shall be prepared, as described in NMAC 4.10.16.14. Preliminary reports will demonstrate the completion of data recovery, or other procedures and site treatments, approved in the Plans. NMSA shall distribute preliminary reports to the FAA, NMSHPO, and the appropriate land managing agency(ies), and those parties will have ten (10) business days to review the report and either concur or request additional fieldwork, after which concurrence will be presumed. Construction may proceed, in the area of the completed fieldwork, after the FAA, NMSHPO, and

appropriate land managing agency(ies) concur with the report and the completed fieldwork. If further work is deemed necessary the parties will consult with NMSA to determine the nature and scope of that work.

iii. Technical reports. Technical reports describing the results of the historical research, fieldwork activities, and laboratory analyses shall be prepared according to the standards and permit guidelines appropriate to the resource, for example final report standards for archaeological excavation (NMAC 4.10.16.15). Review procedures for technical reports shall follow those described in the appropriate resource regulations, including a sixty (60) calendar day review of draft technical reports by the Signatories. NMSA shall issue final reports no later than two years from the completion of fieldwork activities.

iv. Distribution of final technical reports. The NMSA, in consultation with the NMSHPO, shall prepare sufficient copies of final technical reports completed pursuant to this Agreement for the FAA to distribute to the New Mexico Historic Preservation Division and for dissemination to the Consulting Parties (see Appendix A), appropriate public libraries, educational institutions, and other repositories.

b. Annual Meeting: A meeting of the Signatories and Concurring Parties shall be held each year, on or around the date on which this Agreement is executed, to discuss the previous year's activities, and activities scheduled for the upcoming year.

i. NMSA shall prepare an annual report on the progress of activities as they relate to compliance with the stipulations of this Agreement, and shall distribute it to all parties to this Agreement at least fifteen (15) days prior to the Annual Meeting. The annual report shall include the following:

1) A description of the past year's effort and anticipated upcoming efforts for identification, evaluation, mitigation, and protection of historic properties;

2) A description of the progress of the Undertaking and any known or expected changes to the Undertaking;

3) An evaluation of the effectiveness of this Agreement and whether any amendments or changes are needed based on deficiencies or project modifications.

ii. The meeting shall be held in a location agreed upon by consensus of the Signatories, and parties may participate by telephone if they so desire. The FAA will distribute minutes of the meeting to all Signatories and Consulting Parties within two weeks of the meeting.

c. Dispute resolution after Project approval shall conform to the following protocols:

i. Should the FAA, NMSA, NMSHPO, BLM, NMSLO, or ACHP object to any plans or actions proposed pursuant to this Agreement, a notice of the intent to object shall be sent to the FAA and NMSA within ten (10) days and formal written objection made within twenty (20) days. The FAA shall take the objection into account and consult, as needed, within ten (10) days with the Signatories to resolve the written objection. Copies of written objections shall be submitted simultaneously to all Signatories. Copies of the FAA's resolution also shall be provided to all Signatories.

ii. If the FAA determines that the objection cannot be resolved, the FAA shall forward all documentation relevant to the dispute to the ACHP and request that the ACHP comment. Within twenty (20) days of receipt of all pertinent documentation, the ACHP shall either:

1) Provide the FAA with recommendations to take into account in reaching a final decision regarding the dispute; or

2) Notify the FAA that it will comment pursuant to 36 CFR Part 800.6 (b) and proceed to comment.

iii. Any ACHP comment provided in response to such a request shall be taken into account by the FAA, in accordance with 36 CFR Part 800.6(c)(2), with reference only to the subject of the dispute. All responsibilities to carry out actions under this Agreement that are not subject to the dispute shall remain unchanged.

d. The FAA shall take all public comments into consideration in reviewing actions carried out under this Agreement.

e. Any Signatory to this Agreement may request that the other Signatories consider amending it, in which case the parties shall consult to consider the proposed amendment(s). Amendments will be executed in the same manner as the original Agreement. Consulting parties may suggest proposed amendments to the Signatories, who shall consult to consider them.

f. Any Signatory to this Agreement may terminate their participation in the Agreement by providing thirty (30) days notice to the other parties explaining the reasons for the termination. The Signatories shall consult during this period to seek agreement on amendments or other actions that will avoid termination. Termination of participation shall not terminate the Agreement among other parties.

g. This Agreement shall become effective upon execution by the FAA, ACHP, NMSHPO, BLM, NMSA, and NMSLO, and shall remain in effect for a term of five years from its date of execution at which time NMSA may seek to extend this Agreement for an additional time.

h. The FAA and BLM shall attach this Agreement or the stipulations called for in this Agreement to any Record of Decision, approval(s), or other conditions issued for the Project so that this Agreement and its requirements become legally enforceable and binding on those activities.

i. Execution and implementation of this Programmatic Agreement is evidence that the FAA and BLM have afforded the ACHP an opportunity to comment on the Spaceport America Project and its effects on historic properties, that the FAA and BLM have satisfied responsibilities under the NHPA, including Section 110 as well as Section 106 pursuant to the implementing regulations at 36 CFR 800, and that the NMSHPO, NMSA, and NMSLO have satisfied responsibilities under the New Mexico Prehistoric and Historic Sites Preservation Act NMAC 4.10.12.

A. SIGNATORIES

FEDERAL AVIATION ADMINISTRATION

By:_____ Date:_____
Name
Title

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By:_____ Date:_____
Name
Title

BUREAU OF LAND MANAGEMENT

By:_____ Date:_____
Name
Title

NEW MEXICO STATE HISTORIC PRESERVATION OFFICER

By:_____ Date:_____
Name
Title

B. INVITED SIGNATORIES

NEW MEXICO SPACEPORT AUTHORITY

By:_____ Date:_____
Name
Title

NEW MEXICO STATE LAND OFFICE

By:_____ Date:_____
Name
Title

Attachment 1. Preferred Alternative

The State of New Mexico, New Mexico Economic Development Department (NMEDD) through the New Mexico Spaceport Authority (NMSA) proposes to develop and operate a commercial space launch site, called Spaceport America. The proposed site is in Sierra County near Upham, New Mexico (NM) at a location approximately 45 miles north of Las Cruces, New Mexico and 30 miles southeast of Truth or Consequences, NM (see Exhibit 1). Under the Proposed Action, the FAA would issue a Launch Site Operator License to NMSA that would allow the state to operate Spaceport America for both horizontal and vertical suborbital launch vehicle (LV) launches. In addition, the proposed Spaceport America would include construction of infrastructure to support the operation of the launch site that would be licensed under the Proposed Action. FAA prepared a draft Environmental Impact Statement (EIS) to analyze potential environmental impacts associated with licensing the proposed launch site.

The development of Spaceport America infrastructure would occur in multiple construction phases and would include the development of the vertical launch area, the horizontal launch area, access roads, and the associated infrastructure (see Exhibit 2). All construction, with the exception of improvements to some existing access roads and installation of a power transmission line and fiber optic cables to the Project site, would take place on New Mexico State Trust Land. Off-site access roads, transmission lines, and fiber optic cables would cross a mix of State Trust, BLM, and private lands. The total area of land disturbed by construction would be approximately 970 acres; the total area of the final facilities footprint would be approximately 145 acres. The proposed Spaceport America boundary would encompass approximately 26 square miles.

The operational activities related to the proposed Spaceport America include, transport of LVs to the assembly or staging area, transportation and storage of propellants and other fuels, launch, landing and recovery of horizontal and vertical LVs, airspace operations, ground-based tests, training, and X Prize Cup events. The vehicles may carry space flight participants, scientific experiments, or other payloads. Horizontal LVs would launch and land at the proposed Spaceport America airfield. Vertical LVs would launch from the proposed Spaceport America and would either land at Spaceport America or in the United States (U.S.) Army's White Sands Missile Range (WSMR), which is located approximately 9 miles east of the site. Landings at WSMR would be coordinated and approved in advance by WSMR. Non-amateur vehicle operations would require a separate license or permit from the FAA.

The FAA identified two alternatives and the No Action Alternative to the Proposed Action, which are considered in the EIS. Under Alternative 1, the FAA would consider issuing a Launch Site Operator License only for the operation of a launch site to support horizontal launches. Under Alternative 2, the FAA would consider issuing a Launch Site Operator License only for the operation of a launch site to support vertical launches. Under the No Action Alternative, the FAA would not issue a Launch Site Operator License to the NMSA.

Eleven resource areas were considered to provide a context for understanding and assessing the potential environmental effects of the Proposed Action, with attention focused on key issues. The

resource areas considered included compatible land use; Section 4(f) properties and farmlands; noise; visual resources and light emissions; historical, architectural, archaeological, and cultural resources; air quality; water quality, wetlands, wild and scenic rivers, coastal resources, and floodplains; fish, wildlife, and plants; hazardous materials, pollution prevention, and solid waste; socioeconomics, environmental justice, and children's environmental health and safety risks, and energy supply and natural resources.

According to the analysis in the draft EIS the only resource area for which the impact from the Proposed Action would exceed the applicable threshold of significance is Historical, Architectural, Archaeological, and Cultural Resources. Mitigation measures are being developed by the FAA, in consultation with the New Mexico SHPO and Section 106 consulting parties, to resolve these impacts and reduce them to a level which is not significant. Conceptual mitigation measures for all other resources areas are also presented in the EIS.

The FAA distributed and published the draft EIS in July 2008 (available at http://www.faa.gov/about/office_org/headquarters_offices/ast/). The FAA held six public hearings in three counties across New Mexico on August 6, 7, and 8 during the public comment period, which closed on August 18, 2008. The FAA will incorporate and respond to all of the comments received in the final EIS, which is expected to be published by November 2008.

Exhibit 1A
Location of the Proposed Spaceport America with Respect to Surrounding Areas

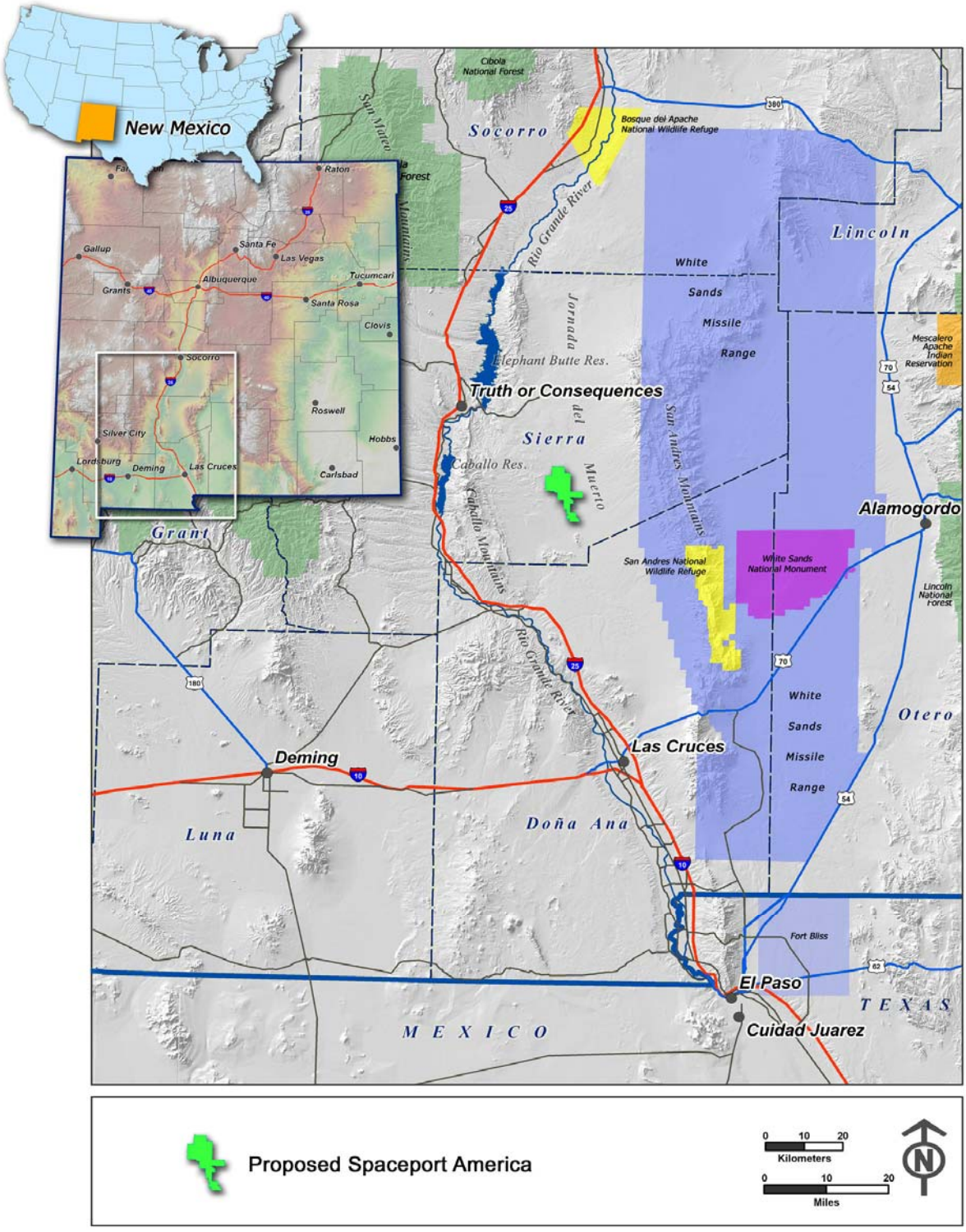


Exhibit 1B
Spaceport America Layout with Infrastructure Components and Locations

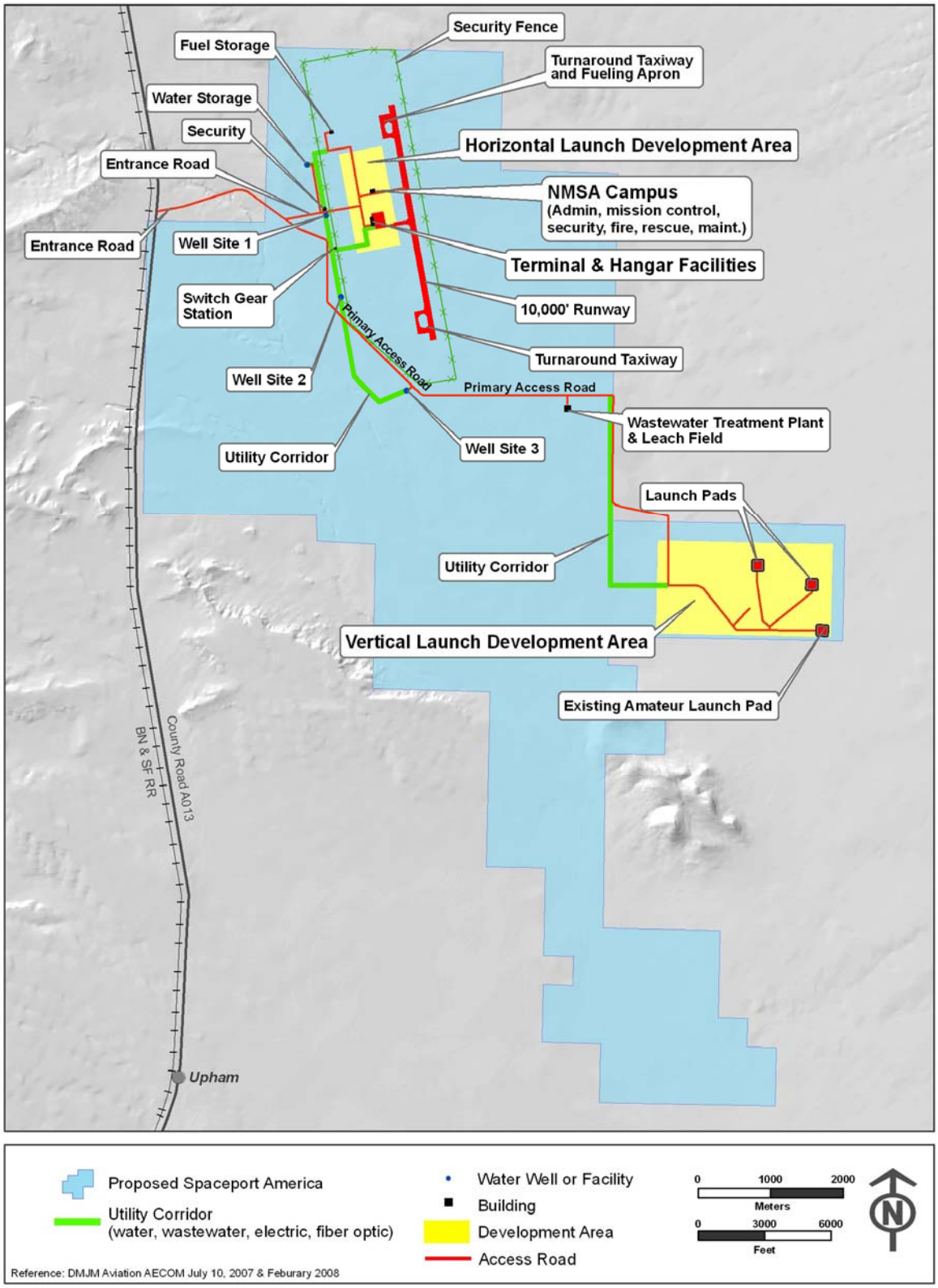


Exhibit 1C
Physical APE, showing On-site Block Survey Areas, Transmission Corridors, and Roads

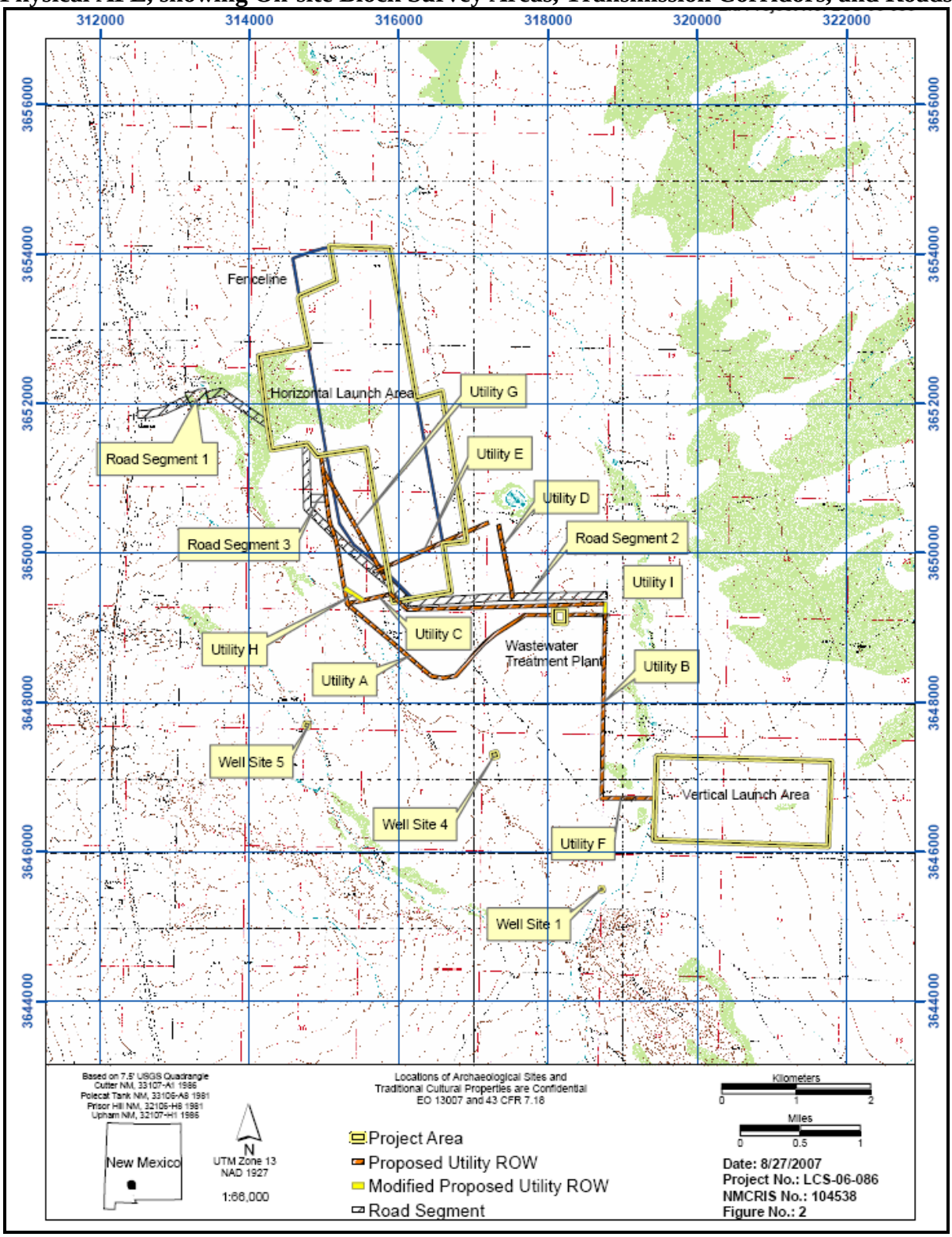


Exhibit 1D
Physical APE, showing Off-site Utility Corridors

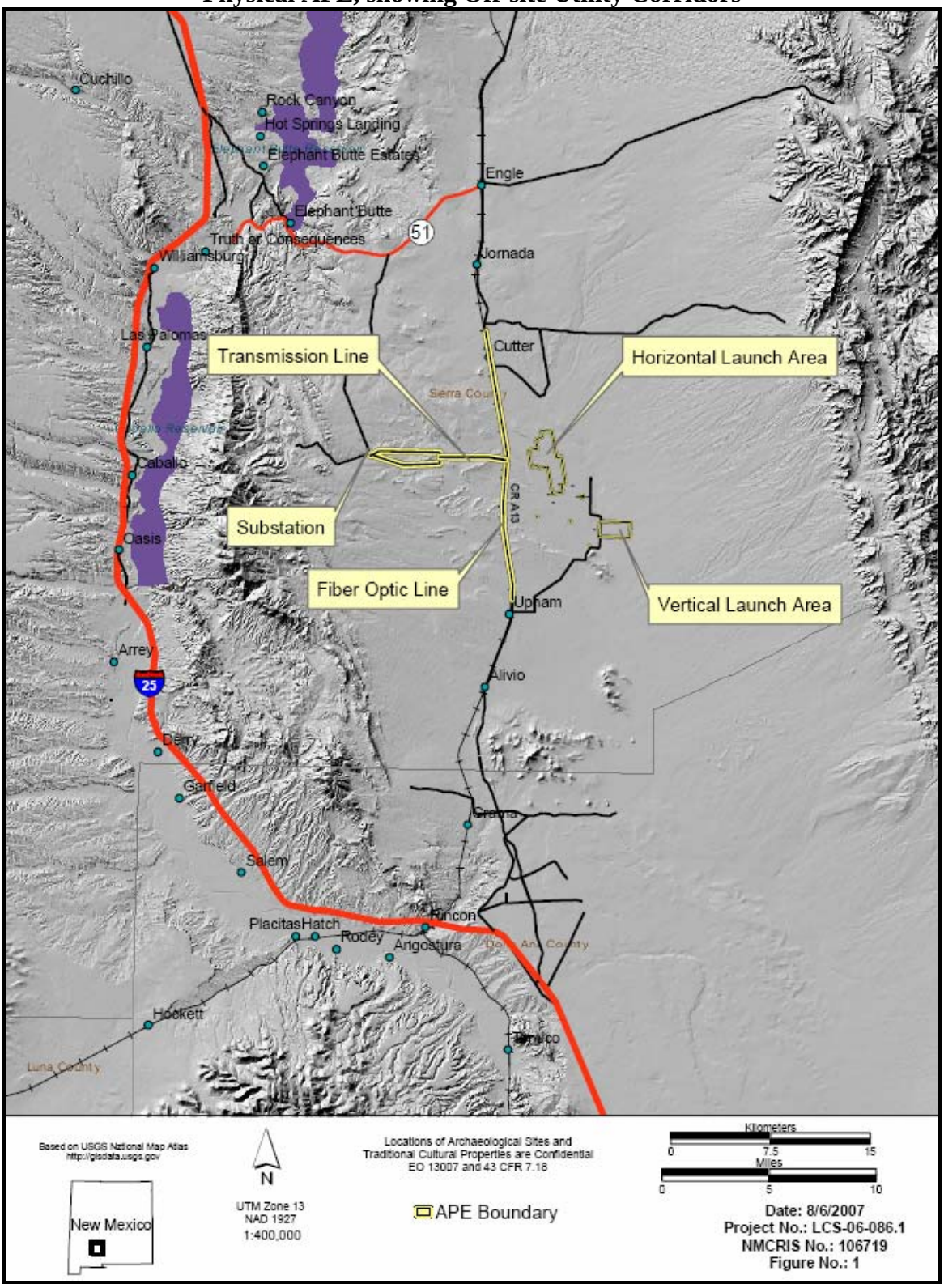
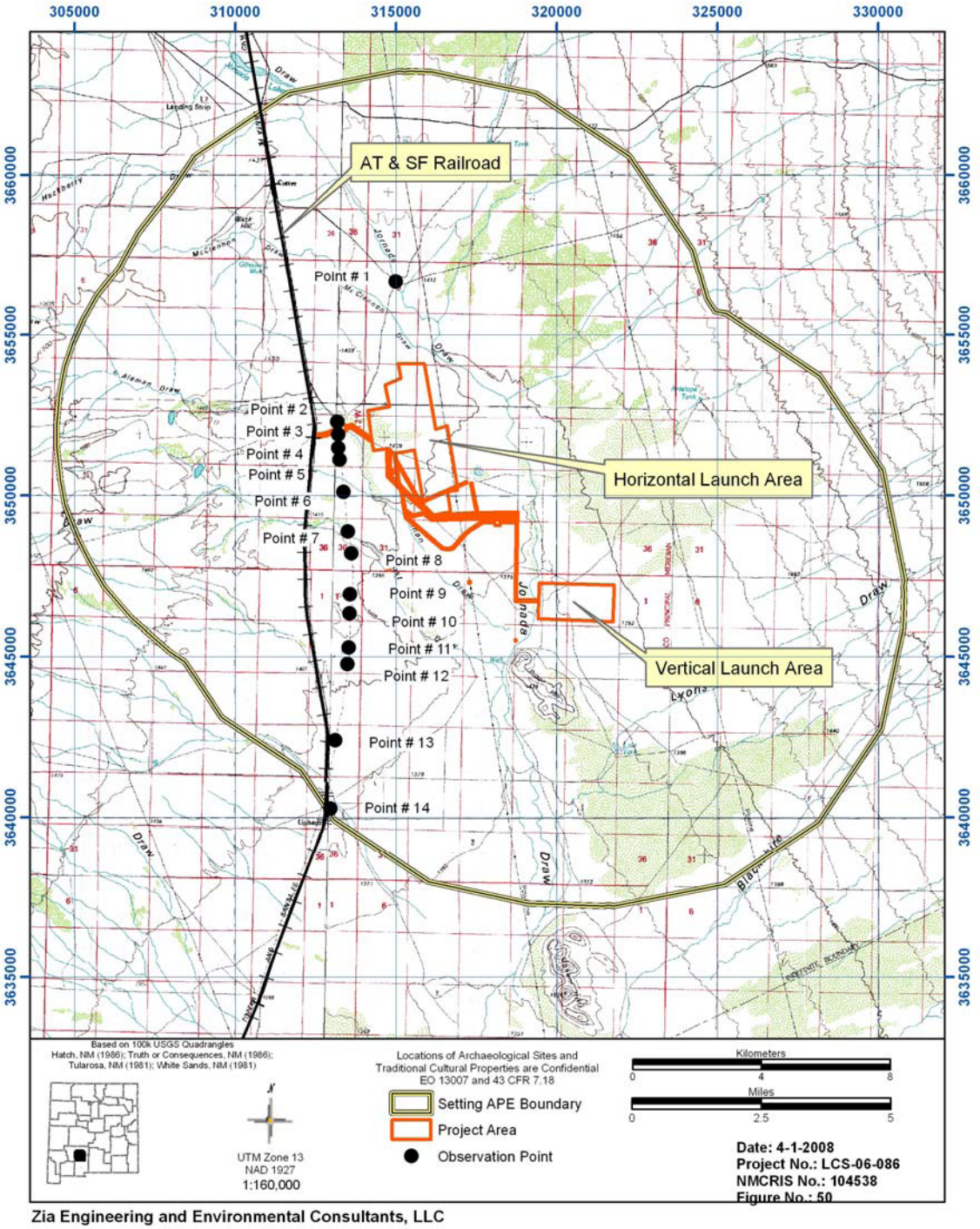


Exhibit 1E
Setting APE, Boundary of APE in Relation to Proposed Facility and Observation Points



Zia Engineering and Environmental Consultants, LLC

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Attachment 2. Summary Table of Cultural Resources Identified Within the Physical and Setting APEs for the Proposed Spaceport America.

LA Site #	Land Ownership	Site Occupation/Type	FAA Determination of Eligibility	BLM or NMSLO Concurrence/Date (if applicable)	SHPO Concurrence/ Date	Integrity	Research Domains/ Themes/Landscapes	Historic Values	FAA Determination of Effect	
									Direct	Indirect
8871 (Aleman Draw Historic District)	NMSLO, private	Prehistoric/Multi-Use Camp Historic/Ranch, CCC Camp, Road	Eligible under Criteria A, B, C, and D			1 – 7 are intact. CR A-039 crosses the southern portion of the site; subsurface remains are likely.	Prehistoric: subsistence practices, procurement practices, site structure, chronology, and use, seasonality Historic: transportation, Aleman Draw water source, settlement and economy in the Jornada del Muerto, site structure, social organization	Intact physical remains (e.g., structures, buildings, artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains. Setting characteristics (visual and auditory) which contribute to the understanding of the historic resources.	Adverse effect on a small portion of the site from construction of the entrance road and adjacent utility corridor. Remainder of site can be protected by fencing to restrict the construction area. Adverse effect from visual and auditory intrusions to the Setting from construction activities, introduction of a modern facility into the viewshed, and launch and non-launch operational activities.	Adverse effect from visual and auditory intrusions to the Setting from traffic associated with construction and operations.
51205 (Aleman Draw Historic District)	NMSLO, BLM, private	Mogollon/Limited Use Area Historic/Railroad Siding	Eligible under Criterion D			1 – 7 are intact. CR A-013 and A-039 cross the site; subsurface remains are likely.	Prehistoric: procurement practices, tool manufacture or use, site structure, chronology, and use Historic: transportation, Aleman Draw water source, settlement and economy in the Jornada del Muerto, site structure, social organization	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains. Setting characteristics (visual and auditory) which contribute to the understanding of the historic resources.	Adverse effect on a small portion of the site from construction of fiber optic corridor along CR A-013 and from entrance road and adjacent utility corridor. Remainder of site can be protected by fencing to restrict the construction area. Adverse effect from visual and auditory intrusions to the Setting from construction activities, introduction of a modern facility into the viewshed, and launch and non-launch operational activities.	Adverse effect from visual and auditory intrusions to the Setting from traffic associated with construction and operations.

LA Site #	Land Ownership	Site Occupation/Type	FAA Determination of Eligibility	BLM or NMSLO Concurrence/Date (if applicable)	SHPO Concurrence/ Date	Integrity	Research Domains/ Themes/Landscapes	Historic Values	FAA Determination of Effect	
									Direct	Indirect
80070 (Aleman Draw Historic District)	NMSLO, private	Historic/Road	Eligible under Criterion A and D			1 – 7 are intact. CR A-039 and an abandoned two-track road cross the site; subsurface remains are likely.	Transportation, Aleman Draw water source, settlement and economy in the Jornada del Muerto, site use and chronology	Intact physical remains (e.g., artifacts, features, datable materials, and other materials), including potential subsurface remains, that could address the research domains. Setting characteristics (visual and auditory) which contribute to the understanding of the historic resource.	Adverse effect on a small portion of the site from construction of the entrance road and adjacent utility corridor. Remainder of site can be protected by fencing to restrict the construction area. Adverse effect from visual and auditory intrusions to the Setting from construction activities, introduction of a modern facility into the viewshed, and launch and non-launch operational activities.	Adverse effect from visual and auditory intrusions to the Setting from traffic associated with construction and operations.
111420	NMSLO	Early to Middle Archaic/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Some disturbance by blading in one portion of site and a two-track road; subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	Adverse effect on the site from construction of the utility corridor.	No effect
111421	NMSLO	Prehistoric/Limited Use Area	Undetermined eligibility			1 – 7 are intact. Some disturbance from a two-track road; subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	Testing needed to determined eligibility. If eligible, the there would be an adverse effect on a portion of the site from construction of the utility corridor. Remainder of site can be protected by fencing to restrict the construction area.	No effect
111422	NMSLO	Late Archaic to Jornada Mogollon/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	Adverse effect on a portion of the site from construction of the utility corridor. Remainder of site can be protected by fencing to restrict the construction area.	No effect

LA Site #	Land Ownership	Site Occupation/Type	FAA Determination of Eligibility	BLM or NMSLO Concurrence/Date (if applicable)	SHPO Concurrence/ Date	Integrity	Research Domains/ Themes/Landscapes	Historic Values	FAA Determination of Effect	
									Direct	Indirect
111429	NMSLO	Paleoindian, Archaic, Jornada Mogollon/Multi-Use Camp	Eligible under Criterion D			1 – 7 are intact. CR A-020 crosses the site; subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this portion of the surveyed area will not be used by the project.	No effect
111432	NMSLO, BLM	Paleoindian/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. CR A-020 crosses it; subsurface remains are likely.	Procurement practices, tool manufacture or use, site chronology and use	Intact physical remains (e.g., artifacts and other materials), including potential subsurface remains, that could address the research domains.	Adverse effect on a small portion of the site from construction of the utility corridor. Remainder of site can be protected by fencing to restrict the construction area.	No effect
111435	NMSLO	Jornada Mogollon/Multi-Use Camp	Eligible under Criterion D			1 – 7 are intact. Two-track road crosses the site; subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	Adverse effect on a small portion of the site from construction of the utility corridor. Remainder of site can be protected by fencing to restrict the construction area.	No effect
112367	NMSLO	Jornada Mogollon/Limited Use Area	Undetermined eligibility			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; most of the site is located outside of the surveyed corridor and it will be avoided by construction activities. Temporary fencing will be installed around the site during construction activities to ensure no impacts.	No effect
112368	NMSLO	Paleoindian, Archaic/Multi-Use Camp	Eligible under Criterion D			1 – 7 are intact. Two-track road crosses it; subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this portion of the surveyed area will not be used by the project.	No effect
112369	NMSLO	Prehistoric/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this portion of the surveyed area will not be used by the project.	No effect

LA Site #	Land Ownership	Site Occupation/Type	FAA Determination of Eligibility	BLM or NMSLO Concurrence/Date (if applicable)	SHPO Concurrence/ Date	Integrity	Research Domains/ Themes/Landscapes	Historic Values	FAA Determination of Effect	
									Direct	Indirect
112370	NMSLO	Prehistoric/Limited Use Area	Undetermined eligibility			1 – 7 are intact. Gravel road crosses site; subsurface remains are likely.	Subsistence practices, procurement practices, site use, seasonality	Intact physical remains (e.g., artifacts and other materials), including potential subsurface remains, that could address the research domains.	Testing needed to determine eligibility. If eligible, then there would be an adverse effect on a portion of the site from construction of the utility corridor and road maintenance. Remainder of site can be protected by permanent fencing to restrict the construction area and to limit maintenance activities.	No effect
112371	NMSLO	Prehistoric/Limited Use Area	Undetermined eligibility			1 – 7 are intact. Gravel road crosses north end of site; subsurface remains are likely.	Subsistence practices, procurement practices, site use, seasonality	Intact physical remains (e.g., artifacts and other materials), including potential subsurface remains, that could address the research domains.	Testing needed to determine eligibility. If eligible, then there would be an adverse effect on a portion of the site from construction of the utility corridor and road maintenance. Remainder of site can be protected by permanent fencing to restrict the construction area and to limit maintenance activities.	No effect
112372	NMSLO	Middle Archaic, Apache/Multi-Use Camp	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this portion of the surveyed area will not be used by the project.	No effect
112374	NMSLO	Prehistoric/Limited Use Area	Undetermined eligibility			1, 3, and 6 are intact. 2, 4, 5, and 7 are impacted by an gravel road; subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site use, seasonality	Intact physical remains (e.g., artifacts and other materials), including potential subsurface remains, that could address the research domains.	Testing needed to determine eligibility. If eligible, then there would be an adverse effect on the site from construction of the utility corridor and road maintenance.	No effect
112376	NMSLO	Prehistoric/Limited Use Area	Undetermined eligibility			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site use, seasonality	Intact physical remains (e.g., artifacts and other materials), including potential subsurface remains, that could address the research domains.	No effect; this portion of the surveyed area will not be used by the project.	No effect

LA Site #	Land Ownership	Site Occupation/Type	FAA Determination of Eligibility	BLM or NMSLO Concurrence/Date (if applicable)	SHPO Concurrence/ Date	Integrity	Research Domains/ Themes/Landscapes	Historic Values	FAA Determination of Effect	
									Direct	Indirect
112377	NMSLO	Paleoindian, Prehistoric/Multi-Use Camp	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this portion of the surveyed area will not be used by the project.	No effect
112378	NMSLO, BLM	Paleoindian, Middle Archaic/Multi-Use Camp	Eligible under Criterion D			1 – 7 are intact. CR A-020 runs through length of site; subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this portion of the surveyed area will not be used by the project.	No effect
112379	NMSLO	Late Archaic/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, seasonality	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this portion of the surveyed area will not be used by the project.	No effect
112380	NMSLO	Paleoindian, Jornada Mogollon/Multi-Use Area	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this portion of the surveyed area will not be used by the project.	No effect
112382	NMSLO	Prehistoric/Limited Use Area	Not eligible			2, 4, 5, and 7 have been completely impacted. Site has been destroyed.	n/a	n/a	n/a	n/a
112383	NMSLO	Prehistoric/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, seasonality	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this portion of the surveyed area will not be used by the project.	No effect

LA Site #	Land Ownership	Site Occupation/Type	FAA Determination of Eligibility	BLM or NMSLO Concurrence/Date (if applicable)	SHPO Concurrence/ Date	Integrity	Research Domains/ Themes/Landscapes	Historic Values	FAA Determination of Effect	
									Direct	Indirect
112384	NMSLO	Jornada Mogollon/Multi-Use Camp	Eligible under Criterion D			1 – 7 are intact. Two-track crosses site; subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this portion of the surveyed area will not be used by the project.	No effect
112385	NMSLO	Prehistoric/Limited Use Area	Undetermined eligibility			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site chronology and use	Intact physical remains (e.g., artifacts, datable materials, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this portion of the surveyed area will not be used by the project.	No effect
112395	NMSLO	Paleoindian, Prehistoric/Multi-Use Camp	Eligible under Criterion D			1 – 7 are intact. CR A-020 runs through site; subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this portion of the surveyed area will not be used by the project.	No effect
155962 (Aleman Draw Historic District)	private	Late Archaic, Jornada Mogollon/Multi-Use Camp Historic/Trash Scatter	Eligible under Criterion D			1 – 7 are intact. CR A-039 bladed road bisects the site; subsurface remains are likely.	Prehistoric: subsistence practices, procurement practices, tool use or manufacture, site structure, chronology, and use, social organization, site re-use, seasonality, mobility Historic: transportation, Aleman Draw water source, settlement in the Jornada del Muerto, subsistence practices	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains. Setting characteristics (visual and auditory) which contribute to the understanding of the historic resources.	Adverse effect on small portion of site from construction of the entrance road and adjacent utility corridor. Remainder of site can be protected by fencing to restrict the construction area. Adverse effect from visual and auditory intrusions to the Setting from construction activities, introduction of a modern facility into the viewshed, and launch and non-launch operational activities.	Adverse effect from visual and auditory intrusions to the Setting from traffic associated with construction and operations.
155963	NMSLO	Late Archaic, Jornada Mogollon/Multi-Use Camp	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	Adverse effect on site from construction of the entrance road, primary access road , security and perimeter/game fence, utility corridor, road to water storage tank, and the tank and associated booster station.	No effect

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									Direct	Indirect
155964	NMSLO	Middle Archaic/Multi-Use Camp	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	Adverse effects on site from construction of the perimeter/game fence and possibly the utility corridor.	No effect
155965	NMSLO	Prehistoric/Multi-Use Camp	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this surveyed corridor will no longer be used by the project.	No effect; site is somewhat close to construction areas and may warrant temporary fencing during construction activities to ensure no impacts.
155966	NMSLO	Historic/Ranching Feature	Undetermined eligibility			1 – 7 are intact Subsurface remains are not likely.	Subsistence practices, site chronology	Intact physical remains (e.g., artifacts, features, datable materials,) that could address the research domains.	No effect; this surveyed corridor will no longer be used by the project.	No effect
155967	NMSLO	Prehistoric/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, site structure, chronology, and use, seasonality	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this portion of the surveyed area will not be used by the project.	No effect
155968	NMSLO	Prehistoric/Multi-Use Area	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	Adverse effect on the site from construction of the primary access road and a utility corridor.	No effect
155969	NMSLO	Prehistoric/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	Adverse effect on site from construction of runway.	No effect

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									Direct	Indirect
155970	NMSLO	Prehistoric/Limited Use Area	Undetermined eligibility			1 -7 are intact. Subsurface remains may be present.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	Testing needed to determine eligibility. If eligible, then there would be an adverse effect on the site from construction of the runway.	No effect
155971	NMSLO	Prehistoric, Apache?/Limited Use Area	Eligible under Criterion D			1 -7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, site structure, chronology, and use, site re-use, seasonality	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this surveyed area will be avoided by construction activities.	No effect; the site is very close to the runway and other infrastructure and will be temporarily fenced during construction and permanently fenced during operations to ensure no impacts.
155972	NMSLO	Prehistoric/Limited Use Area	Undetermined eligibility			1, 3, and 6 are intact. 2, 4, 5, and 7 are somewhat impacted; subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this surveyed area will be avoided by construction activities.	No effect; the site is very close to the runway and other infrastructure and will be temporarily fenced during construction and permanently fenced during operations to ensure no impacts.
155973	NMSLO	Prehistoric/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, site structure, chronology, and use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this surveyed area will be avoided by construction activities.	No effect; the site is very close to the runway and other infrastructure and will be temporarily fenced during construction and permanently fenced during operations to ensure no impacts.
155974	NMSLO	Prehistoric/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Two-track road at northern edge of site; subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, seasonality	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this portion of the surveyed area will not be used by the project.	No effect

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									Direct	Indirect
155975	NMSLO	Prehistoric/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, seasonality	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this portion of the surveyed area will not be used by the project.	No effect
156877	NMSLO	Prehistoric/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	Adverse effect from construction of the primary access road.	No effect
156878	NMSLO	Prehistoric/Limited Use Area	Undetermined eligibility			1 – 7 are intact. Subsurface remains may be present.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; the surveyed area is no longer a part of the construction area.	No effect; the site is very close to a different utility corridor and will be temporarily fenced during construction activities to ensure no impacts.
156879	NMSLO	Jornada Mogollon/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, seasonality	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this portion of the surveyed area will not be used by the project.	No effect; the site is very close to a secondary direct road and utility corridor and will be temporarily fenced during construction activities to ensure no impacts.
156880	NMSLO	Prehistoric/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, seasonality	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect; this portion of the surveyed area will not be used by the project.	No effect

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									Direct	Indirect
51204	NMSLO, BLM	Prehistoric/Multi-Use Camp	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	Adverse effect on a small portion of the site from construction of fiber optic corridor along CR A-013. Remainder of site can be protected by fencing to restrict the construction area.	No effect
156860	NMSLO, BLM	Prehistoric/Limited Use Area	Not eligible			1, 3, and 6 are intact. 2, 4, 5, and 7 heavily impacted; subsurface remains are not likely.	n/a	Mechanical disturbance has impacted the artifacts, and materials. Relationships between them are no longer intact. The site has little information potential.	n/a	n/a
156861	private	Prehistoric/Limited Use Area Historic/Railroad Siding	Eligible under Criterion D			1 – 7 are intact. One edge of the site has been bladed; intact subsurface remains are likely.	Prehistoric: procurement practices, tool manufacture or use, site structure, chronology, and use Historic: subsistence practices, site structure, social organization	Intact physical remains (e.g., artifacts, datable materials, and other materials), including potential subsurface remains, that could address the research domains.	Adverse effect on the site from construction of fiber optic corridor along CR A-013.	No effect
156862	NMSLO	Late Archaic/ Multi-Use Camp	Eligible under Criterion D			1 – 7 are intact. One edge of the site has been bladed; intact subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	Adverse effect on the site from construction of fiber optic corridor along CR A-013.	No effect
156863	private	Mogollon/Multi-Use Camp Historic/Trash Scatter	Eligible under Criterion D			1 – 7 are intact. One edge of the site has been bladed; intact subsurface remains are likely.	Prehistoric: subsistence practices, procurement practices, tool use or manufacture, site structure, chronology, and use, social organization, site re-use, seasonality, mobility Historic: subsistence practices, site structure, social organization	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	Adverse effect on the site from construction of fiber optic corridor along CR A-013.	No effect

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									Direct	Indirect
156864	NMSLO, private	Late Archaic/ Multi-Use Camp	Eligible under Criterion D			1 – 7 are intact. One edge of the site has been bladed; intact subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	Adverse effect on a small portion of the site from construction of fiber optic corridor along CR A-013. Remainder of site can be protected by fencing to restrict the construction area.	No effect
156865	NMSLO, BLM	Middle Archaic/ Limited Use Area Historic/Trash Scatter	Eligible under Criterion D			1 – 7 are intact. One edge of the site has been bladed, intact subsurface remains are likely.	Prehistoric: subsistence practices, procurement practices, tool use or manufacture, site structure, chronology, and use, social organization, site re-use, seasonality, mobility Historic: subsistence practices, site structure, social organization	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	Adverse effect on a small portion of the site from construction of fiber optic corridor along CR A-013. Remainder of site can be protected by fencing to restrict the construction area.	No effect
156866	NMSLO	Prehistoric/Limited Use Area	Undetermined eligibility			1 – 7 are intact. One edge of the site has been bladed, intact subsurface remains may be present.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, seasonality,	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains. Surface remains are limited.	Testing needed to determine eligibility. If eligible, then there would be an adverse effect on the site from construction of fiber optic corridor along CR A-013.	No effect
156867	BLM	Archaic/Limited Use Area Historic/Structural Remains	Undetermined eligibility			1, 3, and 6 are intact. 2, 4, 5, and 7 are somewhat impacted; subsurface remains are not likely.	Prehistoric: procurement practices, tool manufacture or use, site structure, chronology, and use Historic: subsistence practices, site structure, social organization	Intact physical remains (e.g., artifacts, features, structures, and other materials), including potential subsurface remains, that could address the research domains. Surface remains are limited.	Testing and archival research are needed to determine eligibility. If eligible, then there would be an adverse effect on the site from construction of fiber optic corridor along CR A-013.	No effect
156868	BLM	Historic/Trash Scatter	Not eligible			1 – 7 are intact. One edge of the site has been bladed; subsurface remains are not likely.	n/a	The limited artifact assemblage is not likely to contribute significant information.	n/a	n/a

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									Direct	Indirect
156869	BLM	Paleoindian/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Two 2-track roads cross site; subsurface remains are not likely.	Subsistence practices, procurement practices, tool manufacture or use, seasonality, mobility	Intact physical remains (e.g., artifacts, datable materials, blood residues, and other materials) that could address the research domains.	Adverse effect on the site from construction of the underground transmission line.	No effect
156870	BLM	Early Archaic/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are not likely.	Subsistence practices, procurement practices, tool manufacture or use, seasonality, mobility	Intact physical remains (e.g., artifacts, datable materials, blood residues, and other materials) that could address the research domains.	No effect; site will be avoided by spanning the aboveground transmission line, establishing the access two-track road north of the site but inside the surveyed corridor, and fencing the site during construction activities.	No effect
156871	BLM	Prehistoric/Multi-Use Camp	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are exposed in drainages.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including subsurface remains, that could address the research domains.	No effect; this surveyed corridor will no longer be used for the project.	No effect
156872	BLM	Mogollon/Multi-Use Camp	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are likely.	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including subsurface remains, that could address the research domains.	No effect; this surveyed corridor will no longer be used for the project.	No effect; the site is very close to the aboveground corridor and will be fenced during construction to ensure no impacts.
156873	BLM	Late Archaic/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Two-track road crosses site; subsurface remains are not likely.	Procurement practices, tool manufacture or use	Intact physical remains (e.g., artifacts and possibly other materials) that could address the research domains.	Adverse effect on a small portion of the site from construction of aboveground transmission line and access road. Work limits would be temporarily fenced during construction to limit the adverse effect.	No effect
156874	BLM	Prehistoric/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are not likely.	Procurement practices, tool manufacture or use	Intact physical remains (e.g., artifacts and possibly other materials) that could address the research domains.	Adverse effect on the site from construction of the aboveground transmission line.	No effect

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									Direct	Indirect
156875	BLM	Prehistoric/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are not likely.	Procurement practices, tool manufacture or use	Intact physical remains (e.g., artifacts and possibly other materials) that could address the research domains.	No effect; the site will be avoided by spanning the aboveground transmission line, establishing the access two-track road north of the site but inside the surveyed corridor, and fencing the site during construction activities.	No effect
156876	BLM	Prehistoric/Limited Use Area	Eligible under Criterion D			1 – 7 are intact. Subsurface remains are not likely.	Procurement practices, tool manufacture or use	Intact physical remains (e.g., artifacts and possibly other materials) that could address the research domains.	Adverse effect on the site from construction of the aboveground transmission line.	No effect
159142	NMSLO	Prehistoric/Limited Use Area	Not eligible			1, 3, and 6 are intact 2, 4, 5, and 7 heavily impacted; subsurface remains are not likely	n/a	Erosion has impacted the artifacts, materials, and features. Relationships between them are no longer intact. The site has little information potential.	n/a	n/a
159143	NMSLO	Prehistoric/Limited Use Area	Not eligible			1, 3, and 6 are intact 2, 4, 5, and 7 heavily impacted; subsurface remains are not likely	n/a	Erosion has impacted the artifacts, materials, and features. Relationships between them are no longer intact. The site has little information potential.	n/a	n/a
159144	NMSLO	Prehistoric/Multi-Use Camp	Eligible under Criterion D			1, 3, and 6 are intact 2, 4, 5, and 7 are slightly impacted on the surface; intact subsurface remains are likely	Subsistence practices, procurement practices, tool manufacture or use, site structure, chronology, and use, social organization, site re-use, seasonality, mobility	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains.	No effect, this portion of the surveyed area will not be used by the project..	No effect
110405	NMSLO	Archaic/Multi-Use Camp Historic/Road	Eligible under Criteria A and D			1 – 7 are intact.	Prehistoric: subsistence practices, procurement practices, site structure, chronology, and use, tool manufacture or use, seasonality Historic: transportation, Aleman Draw water source, settlement and economy in the Jornada del Muerto	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains. Setting characteristics (visual and auditory) which contribute to the understanding of the historic resources.	Adverse effect from visual and auditory intrusions to the Setting from construction activities, introduction of a modern facility into the viewshed, and launch and non-launch operational activities.	Adverse effect from visual and auditory intrusions to the Setting from traffic associated with construction and operations.

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									Direct	Indirect
110403	NMSLO	Mogollon/Multi-Use Camp Historic/Road	Eligible under Criteria A and D			1 – 7 are intact.	Prehistoric: subsistence practices, procurement practices, site structure, chronology, and use, tool manufacture or use, seasonality Historic: transportation, settlement and economy in the Jornada del Muerto	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains. Setting characteristics (visual and auditory) which contribute to the understanding of the historic resources.	Adverse effect from visual and auditory intrusions to the Setting from construction activities, introduction of a modern facility into the viewshed, and launch and non-launch operational activities.	Adverse effect from visual and auditory intrusions to the Setting from traffic associated with construction and operations.
110404	NMSLO	Prehistoric/Limited Use Area Historic/Road	Eligible under Criteria A and D			1 – 7 are intact.	Prehistoric: subsistence practices, procurement practices, site structure, chronology, and use, tool manufacture or use Historic: transportation, settlement and economy in the Jornada del Muerto	Intact physical remains (e.g., artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains. Setting characteristics (visual and auditory) which contribute to the understanding of the historic resources.	Adverse effect from visual and auditory intrusions to the Setting from construction activities, and launch and non-launch operational activities.	Adverse effect from visual and auditory intrusions to the Setting from traffic associated with construction and operations.
80054	NMSLO	Historic/Road	Eligible under Criteria A, C, and D			1 – 7 are intact.	Transportation, settlement and economy in the Jornada del Muerto	Intact physical remains (e.g., artifacts, features, datable materials and other materials), including potential subsurface remains, that could address the research domains. Setting characteristics (visual and auditory) which contribute to the understanding of the historic resources.	Adverse effect from visual and auditory intrusions to the Setting from construction activities, and launch and non-launch operational activities.	Adverse effect from visual and auditory intrusions to the Setting from traffic associated with construction and operations.
80053	NMSLO	Historic/Road	Eligible under Criteria A and D			1 – 7 are intact.	Transportation, settlement and economy in the Jornada del Muerto	Intact physical remains (e.g., artifacts, features, datable materials and other materials), including potential subsurface remains, that could address the research domains. Setting characteristics (visual and auditory) which contribute to the understanding of the historic resources.	Adverse effect from visual and auditory intrusions to the Setting from construction activities, and launch and non-launch operational activities.	Adverse effect from visual and auditory intrusions to the Setting from traffic associated with construction and operations.

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									Direct	Indirect
110401	BLM	Prehistoric/Limited Use Area Historic/Road	Eligible under Criteria A and D			1 – 7 are intact.	Prehistoric: subsistence practices, procurement practices, site structure, chronology, and use, tool manufacture or use Historic: transportation, settlement and economy in the Jornada del Muerto	Intact physical remains (e.g., artifacts, features, datable materials, and other materials), including potential subsurface remains, that could address the research domains. Setting characteristics (visual and auditory) which contribute to the understanding of the historic resources.	Adverse effect from visual and auditory intrusions to the Setting from construction activities, and launch and non-launch operational activities.	Adverse effect from visual and auditory intrusions to the Setting from traffic associated with construction and operations.
80052/80072	BLM	Historic/Road	Eligible under Criteria A and D			1 – 7 are intact.	Transportation, settlement and economy in the Jornada del Muerto	Intact physical remains (e.g., artifacts, features, datable materials and other materials), including potential subsurface remains, that could address the research domains. Setting characteristics (visual and auditory) which contribute to the understanding of the historic resources.	Adverse effect from visual and auditory intrusions to the Setting from construction activities, introduction of a modern facility into the viewshed, and launch and non-launch operational activities.	Adverse effect from visual and auditory intrusions to the Setting from traffic associated with construction and operations.
110400	BLM	Prehistoric/Limited Use Area Historic/Road	Eligible under Criteria A and D			1 – 7 are intact.	Prehistoric: subsistence practices, procurement practices, site structure, chronology, and use, tool manufacture or use Historic: transportation, settlement and economy in the Jornada del Muerto	Intact physical remains (e.g., artifacts, features, datable materials, and other materials), including potential subsurface remains, that could address the research domains. Setting characteristics (visual and auditory) which contribute to the understanding of the historic resources.	Adverse effect from visual and auditory intrusions to the Setting from construction activities, and launch and non-launch operational activities.	Adverse effect from visual and auditory intrusions to the Setting from traffic associated with construction and operations.
110402	BLM	Prehistoric/Limited Use Area Historic/Road	Eligible under Criteria A and D			1 – 7 are intact.	Prehistoric: subsistence practices, procurement practices, site structure, chronology, and use, tool manufacture or use Historic: transportation, settlement and economy in the Jornada del Muerto	Intact physical remains (e.g., artifacts, features, datable materials, and other materials), including potential subsurface remains, that could address the research domains. Setting characteristics (visual and auditory) which contribute to the understanding of the historic resources.	Adverse effect from auditory intrusions to the Setting from construction activities, and visual and auditory intrusions from launch and non-launch operational activities.	Adverse effect from visual and auditory intrusions to the Setting from traffic associated with construction and operations.

LA Site #	Land Ownership	Site Occupation/Type	FAA Determination of Eligibility	BLM or NMSLO Concurrence/Date (if applicable)	SHPO Concurrence/ Date	Integrity	Research Domains/ Themes/Landscapes	Historic Values	FAA Determination of Effect	
									Direct	Indirect
80071	BLM	Historic/Camp, Road	Eligible under Criteria A and D			1 – 7 are intact.	Transportation, railroad, settlement and economy in the Jornada del Muerto	Intact physical remains (e.g., artifacts, features, datable materials and other materials), including potential subsurface remains, that could address the research domains. Setting characteristics (visual and auditory) which contribute to the understanding of the historic resources.	Adverse effect from visual and auditory intrusions to the Setting from construction activities, and launch and non-launch operational activities.	Adverse effect from visual and auditory intrusions to the Setting from traffic associated with construction and operations.
111000	NMSLO, private	Historic/Road, Railroad Siding	Eligible under Criteria A and D			1 – 7 are intact.	Transportation, railroad, settlement and economy in the Jornada del Muerto	Intact physical remains (e.g., artifacts, structures, features, datable materials and other materials), including potential subsurface remains, that could address the research domains. Setting characteristics (visual and auditory) which contribute to the understanding of the historic resources.	Adverse effect from visual and auditory intrusions to the Setting from construction activities, and launch and non-launch operational activities.	Adverse effect from visual and auditory intrusions to the Setting from traffic associated with construction and operations.
Goetz Ranch	private	Historic/Ranch	Undetermined eligibility			1 – 7 are intact.	Settlement and economy in the Jornada del Muerto, site structure, social organization	Intact physical remains (e.g., structures, buildings, artifacts, features, datable materials, and other materials), including potential subsurface remains, that could address the research domains. Setting characteristics (visual and auditory) which contribute to the understanding of the historic resources.	Research and recording is needed to determine eligibility. If eligible, there would be an adverse effect from visual and auditory intrusions to the Setting from construction activities, and launch and non-launch operational activities.	No effect
AT&SF Railroad	private	Historic/Railroad	Eligible under Criterion A			1, 2, 3, 6, and 7 are intact. 4 and 5 impacted due to replacement of much of the historic materials with modern ones.	Transportation, railroad, settlement and economy in the Jornada del Muerto	Setting characteristics (visual and auditory) which contribute to the understanding of the historic resources.	Adverse effect from visual and auditory intrusions to the Setting from construction activities, introduction of a modern facility into the viewshed, and launch and non-launch operational activities.	Adverse effect from visual and auditory intrusions to the Setting from traffic associated with construction and operations.

LA Site #	Land Ownership	Site Occupation/Type	FAA Determination of Eligibility	BLM or NMSLO Concurrence/Date (if applicable)	SHPO Concurrence/ Date	Integrity	Research Domains/ Themes/Landscapes	Historic Values	FAA Determination of Effect	
									Direct	Indirect
Aleman Draw Historic District (LA Nos. 8871, 51205, 80070, 155962)	NMSLO, BLM, private	Prehistoric/Multi-Use Camp Mogollon/Limited Use Area Late Archaic, Jornada Mogollon/Multi-Use Camp Historic/Ranch, CCC Camp, Road, Railroad Siding	Eligible under Criteria A, B, C, and D			1 – 7 are intact CR A-013 and A-039 cross the District; subsurface remains are likely.	Prehistoric: subsistence practices, procurement practices, tool use or manufacture, site structure, chronology, and use, seasonality, mobility, site re-use, social organization Historic: transportation, Aleman Draw water source, settlement and economy in the Jornada del Muerto, subsistence practices, site structure, chronology, and use, social organization	Intact physical remains (e.g., structures, buildings, artifacts, features, datable materials, blood and plant residues, and other materials), including potential subsurface remains, that could address the research domains. Setting characteristics (visual and auditory) which contribute to the understanding of the historic resources.	Adverse effect on a small portion of the District from construction of the fiber optic corridor along CR A-013, the entrance road, and the adjacent utility corridor. Remainder of the district's properties can be protected by fencing to restrict the construction area. Adverse effect from visual and auditory intrusions to the Setting from construction activities, introduction of a modern facility into the viewshed, and launch and non-launch operational activities.	Adverse effect from visual and auditory intrusions to the Setting from traffic associated with construction and operations.
El Camino Real de Tierra Adentro National Historic Trail	NMSLO, BLM, private	Historic/Road	Eligible under Criteria A, C, and D			1 – 7 are intact.	Transportation, settlement and economy in the Jornada del Muerto	Intact physical remains (e.g., artifacts, features, datable materials and other materials), including potential subsurface remains, that could address the research domains. Setting characteristics (visual and auditory) which contribute to the understanding of the historic resources.	Adverse effect on a small portion of the NHT from construction of the entrance road and adjacent utility corridor. Remainder of NHT can be protected by fencing to restrict the construction area. Adverse effect from visual and auditory intrusions to the Setting from construction activities, introduction of a modern facility into the viewshed, and launch and non-launch operational activities.	Adverse effect from visual and auditory intrusions to the Setting from traffic associated with construction and operations.

Aspects of Integrity: 1 = location; 2 = design; 3 = setting; 4 = materials; 5 = workmanship; 6 = feeling; 7 = association

Color coding of resources to reports:
= onsite report = offsite report = both onsite and offsite reports = water well field report

Appendix A. Tribal and Consulting Party Contacts

Tribal Entities

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Appendix B. Summary of Tribal consultation and involvement during EIS development and Section 106 processes for the proposed Spaceport America

- The FAA initiated tribal consultation in February 2006 and provided an initial description of the proposed action.
- The FAA received responses of interest from the White Mountain Apache Tribe, Comanche Tribe, and the Hopi Tribe.
- The FAA sent another letter in March 2007 describing proposed site layout and asking for comments or concerns that the tribes may have.
- The FAA contacted each tribe by telephone to ensure receipt of the letter, answer questions, and determine interest in the proposed project.
- Responses of interest in the project were received from the White Mountain Apache Tribe, Comanche Tribe, Hopi Tribe, and Ysleta del Sur Pueblo.
- The Pueblo of Isleta responded that there would be no impact to cultural resources affiliated with their tribe. No responses were received from the other tribes.
- In August 2007 the FAA requested comment on cultural survey reports and attendance at the September 2007 consulting party meeting from the White Mountain Apache Tribe, Comanche Tribe, Hopi Tribe, and Ysleta del Sur Pueblo.
- The Hopi Tribe requested copies of cultural survey reports in August 2007.
- In August 2007 the FAA requested review and comment on the on-site cultural survey report from the White Mountain Apache Tribe, Comanche Tribe, Hopi Tribe, and Ysleta del Sur Pueblo.
- The Hopi Tribe replied in September 2007 that they are unable to attend the September meetings, have reviewed the surveys, look forward to seeing the determination of effect, and hope that the sites can be avoided by the project.
- In May 2008 the FAA requested review and comment on the off-site cultural survey report from the White Mountain Apache Tribe, Comanche Tribe, Hopi Tribe, and Ysleta del Sur Pueblo.
- The Hopi Tribe responded in June 2008 that they have ancestral and cultural affiliation to the prehistoric archaeological sites in the project area.
- In July 2008 the FAA requested review and comment on the onsite report's Setting APE analysis chapter from the White Mountain Apache Tribe, Comanche Tribe, Hopi Tribe, and Ysleta del Sur Pueblo.

- In August 2008 the FAA distributed the final cultural survey reports and FAA's determination of eligibility and effect to the White Mountain Apache Tribe, Comanche Tribe, Hopi Tribe, and Ysleta del Sur Pueblo.

- In October 2008 the Ysleta del Sur Pueblo participated in a conference call on the development of the Programmatic Agreement (PA) as part of the Section 106 process. During the call the Pueblo reiterated the fact that they would like to have continued consultation with the FAA during the lifetime of this project.

- In October 2008, the FAA sent an update letter to all of the tribes who had not responded to date, updating them on the status of the proposed Spaceport America project and following up on previous consultation.

Appendix C. Section 106 Milestones for the proposed Spaceport America Project

- February 2006 – FAA initiates Tribal consultation.
- April 20, 2006 – Site visit to El Camino Real de Tierra Adentro National Historic Trail.
- December 12, 2006 – FAA participates in meeting in Santa Fe, New Mexico with Federal, state, and local government agencies.
- March 2007 – FAA invites Section 106 consulting parties (see Appendix A).
- March 22, 2007 – FAA holds Section 106 consulting party meeting and site visit.
- April 3, 2007 – FAA notifies Advisory Council for Historic Preservation (ACHP) of project.
- August 30, 2007 – FAA sends onsite cultural resource survey report to consulting parties for review.
- September 18, 2007 – FAA holds Section 106 consulting party meeting and site visit.
- December 2007 – FAA forwards all comments received on the onsite cultural resource survey report to all consulting parties.
- December 13, 2007 – FAA holds meeting with SHPO in New Mexico to discuss comments received and approach to Setting Area of Potential Effect (APE).
- December 2007 – FAA meets with National Trust for Historic Preservation and holds conference call with BLM and NPS to discuss Setting APE approach.
- April 1, 2008 – FAA meets with SHPO, NPS, NMSLO, and BLM in New Mexico to discuss approach to Memorandum of Agreement and remaining steps of Section 106 process.
- May 30, 2008 – FAA sends offsite cultural resource survey report to consulting parties for review.
- June 19, 2008 – FAA holds Section 106 consulting party meeting and site visit.
- July 2, 2008 – Deadline for consulting party comments on the offsite cultural survey report.
- July 3, 2008 – FAA sent onsite setting study to consulting parties for review.
- August 26, 2008 – FAA sent revised onsite and offsite reports and Determination of Effect for the project to SHPO for formal consultation and copied the consulting parties.
- September 26, 2008 – PA to consulting parties for review.