

[4310-13]

**Department of Transportation**  
**Federal Aviation Administration**  
**Finding of No Significant Impact**

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

**ACTION:** Finding of No Significant Impact

**SUMMARY:** The Federal Aviation Administration (FAA) prepared an Environmental Assessment (EA) to evaluate the proposal from Blue Origin, LLC (Blue Origin) to construct and operate a commercial space launch site to be located on privately-owned property in Culberson County, Texas. Blue Origin proposes to develop this commercial space launch site to launch vertical reusable launch vehicles (RLVs) carrying space flight participants<sup>1</sup> on suborbital, ballistic trajectories to altitudes in excess of 99,060 meters (325,000 feet) above sea level. The EA evaluated the potential environmental impacts of issuing experimental

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<sup>1</sup> Space flight participant means an individual, who is not crew, carried within a launch vehicle or reentry vehicle. 49 United States Code (U.S.C.) § 70102(17) Flight crew means any employee of a licensee or transferee, or of a contractor or subcontractor of a licensee or transferee, who is on board a launch or reentry vehicle and performs activities in the course of that employment directly relating to the launch, reentry, or other operation of the launch vehicle or reentry vehicle. See 49 U.S.C. § 70102(2) (defining crew).

permits and/or licenses to Blue Origin authorizing vertical launches and landings of RLVs and/or operation of a launch site for same. Blue Origin may seek experimental permits to conduct early developmental and test flights. Blue Origin may also seek a launch site operator license, RLV mission-specific licenses, and RLV operator licenses, as appropriate. After reviewing and analyzing currently available data and information on existing conditions, project impacts, and measures to mitigate those impacts, the FAA, Office of Commercial Space Transportation (AST) has determined that issuing the experimental permits and/or licenses analyzed in the EA to Blue Origin would not significantly affect the quality of the human environment within the meaning of the National Environmental Policy Act (NEPA). Therefore the preparation of an Environmental Impact Statement (EIS) is not required and AST is issuing a Finding of No Significant Impact (FONSI). The FAA made this determination in accordance with all applicable environmental laws.

**FOR A COPY OF THE ENVIRONMENTAL ASSESSMENT:** Visit the following internet address: <http://ast.faa.gov> or contact Mr. Doug Graham, FAA Environmental Specialist, 800 Independence Avenue SW, Room 331, Washington, D.C. 20591. You may also send requests via e-mail to [doug.graham@faa.gov](mailto:doug.graham@faa.gov) or by telephone at (202) 267-8568.

**DATES:** The Draft EA was released for public comment on June 28, 2006. The FAA held a public meeting on the Draft EA on July 25, 2006 in Van Horn, Texas to collect comments from the public. All comments received before July 27, 2006 were considered in the preparation of the Final EA.

**PROPOSED ACTION:** Under Title 49 United States Code (U.S.C.), Subtitle IX, Sections 70101-70121, Commercial Space Launch Act, the FAA regulates launches and reentries of launch and reentry vehicles, and the operation of launch and reentry sites when carried out by U.S. citizens or within the United States. (49 U.S.C. 70104, 70105) Chapter 701 directs the FAA to exercise this responsibility consistent with public health and safety, safety of property, and the national security and foreign policy interests of the United States, and to encourage, facilitate, and promote commercial space launch and reentry by the private sector.

(49 U.S.C. 70103, 70105)

The Commercial Space Launch Amendments Act of 2004 (CSLAA) promotes the development of the emerging commercial/human space flight industry and establishes an experimental permit regime for developmental reusable suborbital rockets. This newly established experiment permit regime provides an alternative

mechanism to regulate the launch and reentry of reusable suborbital rockets (49 U.S.C. 70105a). To conduct commercial launch operations, Blue Origin must obtain the required experimental permit(s) and/or license(s) from the FAA. Under the proposed action the FAA would issue experimental permits, a launch site operator license, RLV mission-specific licenses, and/or RLV operator licenses, as appropriate.

Experimental permits differ from launch licenses in a number of ways.

- Unlike a licensed operator, no person may launch a reusable suborbital rocket under an experimental permit for carrying any property or human being for compensation or hire.
- A permit is not transferable. A license is transferable from one entity to another, which could occur after a merger or acquisition.
- Damages arising out of a permitted launch or reentry are not eligible for "indemnification," the provisional payment of claims under 49 U.S.C. 70113. To the extent provided in an appropriation law or other legislative authority, damages caused by licensed activities are eligible for the provisional payment of claims.

- A permit must authorize an unlimited number of launch and reentries for a particular reusable suborbital rocket design operating from a site during a one-year period.

An experimental permit would allow Blue Origin to conduct testing of reusable suborbital rockets that would be launched and landed solely for the purposes of (1) research and development to test new design concepts, new equipment, or new operating techniques; (2) showing compliance with requirements as part of the process for obtaining a license; and/or (3) crew training prior to obtaining a license for a launch or reentry using the design of the rocket for which the permit would be issued. The FAA would issue a separate permit for each rocket design.

An RLV mission-specific license authorizing an RLV mission would allow Blue Origin to launch and reenter, or otherwise land, one model or type of RLV from a launch site approved for the mission to a reentry site or other location approved for the mission. A mission-specific license authorizing an RLV mission may authorize more than one RLV mission and identifies each flight of an RLV authorized under the license. An RLV operator license would allow Blue Origin to launch and reenter, or otherwise land, any of a designated family of RLVs within authorized

parameters. A licensee's authorization to conduct RLV missions terminates upon completion of all activities authorized by the license, or the expiration date stated in the reentry license, whichever comes first.

The FAA is the lead Federal agency responsible for authorizing the proposed launch activities at the proposed Blue Origin facility. Issuing permits and licenses are Federal actions and are subject to review as required by the National Environmental Policy Act (NEPA) of 1969, as amended, 42 U.S.C. § 4321, et. seq. The EA was prepared to describe the proposed action and alternatives considered, the affected environment, the potential effects of the proposed action on that environment, and measures to be taken to mitigate those potential effects. The FAA is using the analysis in the EA as the basis for an environmental determination of the potential impacts of these proposed actions.

Upon receipt of complete permit or license applications, the Associate Administrator for Commercial Space Transportation must determine whether to issue experimental permits or licenses to Blue Origin to launch reusable suborbital rockets on privately-owned property in Culberson County, Texas. Environmental

findings are required for the evaluation of license and permit applications.

The proposed action is for the FAA to issue one or more experimental permits and/or licenses to Blue Origin. Blue Origin proposes to launch RLVs on suborbital, ballistic trajectories to altitudes in excess of 99,060 meters (325,000 feet). To conduct these operations, Blue Origin would construct a private launch site, which would include a vehicle processing facility, launch complex, vehicle landing and recovery area, space flight participant training facility, and other minor support facilities. The proposed Blue Origin launch site is approximately 40.2 kilometers (25 miles) north of Van Horn, Texas. It lies within a larger, privately-owned property known as the Corn Ranch.

The proposed action would include the operation of a launch site to support launches of the Blue Origin New Shepard RLV and New Shepard prototype test vehicles. The New Shepard RLV system would be comprised of a propulsion module and a crew capsule capable of carrying three or more space flight participants to space. The crew capsule is stacked on top of the propulsion module, so the RLV would be vertically-oriented during flight. The stacked vehicle would have a roughly conical shape with a

base diameter of approximately 7 meters (22 feet) and a height of approximately 15 meters (50 feet). The propulsion module would be fully reusable, would carry its own avionics, and would operate autonomously under the control of on-board computers. The propulsion module would use 90 percent concentration hydrogen peroxide, called high test peroxide, and rocket propellant grade kerosene as the propellants. Before flying the human-carrying operational New Shepard RLV for commercial operation, Blue Origin also proposes to develop and flight test a series of unmanned prototypes at the West Texas launch site.

The activities analyzed in the proposed action include clearing and grading the land where construction activities are proposed to occur; constructing the launch site facilities; transporting the vehicle, vehicle components, and propellants to the proposed site; assembling the various vehicle components; conducting ground-based tests; moving the launch vehicle to the test pad; loading the space flight participants or other payload; loading propellants into the launch vehicle; igniting the rocket motors; collecting any debris from the test pad; and landing, recovering, and transporting the RLV from the landing pad.

**PURPOSE AND NEED:** The proposed Blue Origin launch facility would provide Blue Origin with an alternative to launching the

New Shepard vehicle from a Federal or other FAA-licensed launch facility. The proposed facility would provide a location from which to transport space flight participants to the edge of space and return them to the same launch area after a short flight. These activities are consistent with the purposes of the CSLAA. Given the infrastructure and development costs associated with constructing launch facilities, the Federal government has been the owner/operator of, has leased/sold unused or excess infrastructure, and has provided expertise to commercial launch operators for the majority of commercial launches. However, with increasing demand for access to space, commercial launch site operators have begun to develop proposals to offer launch sites, not collocated with Federal facilities or operated by the Department of Defense or the National Aeronautics and Space Administration, to meet the demand for lower cost access to space.

The proposed Blue Origin launch site would provide the infrastructure necessary to support testing and operation of Blue Origin's New Shepard RLV. Accordingly, the proposed action would permit Blue Origin to pursue its objective of developing safe, inexpensive, and reliable human access to space.

**ALTERNATIVES CONSIDERED:** Alternatives analyzed in the EA included (1) the proposed action, issuing experimental permits, a launch site operator license, RLV mission-specific licenses, and/or RLV operator licenses, as appropriate, to Blue Origin for the launch and landing of vertical launch/vertical landing reusable suborbital rockets on privately-owned property in Culberson County, Texas; and (2) the no action alternative. The activities included in this analysis are launching and landing the New Shepard RLV and prototype test vehicles at the proposed site. The EA conservatively assumes that all tests and launches would be conducted using the final operational New Shepard RLV. Therefore, the FAA did not specifically analyze the impacts associated with issuing a subset of experimental permits or licenses for a mix of vehicles because the impacts would be within the range analyzed.

Under the no action alternative, the FAA would not issue permits or licenses to Blue Origin for the purposes of conducting launch operations in Culberson County, Texas. Blue Origin would not conduct RLV testing or launch operations, and the goals set forth by the CSLA would not be advanced. As part of the no action alternative, the proposed site in Culberson County would remain private property. Blue Origin would be forced to identify other private property options or to reconsider

association with state-sponsored spaceport facilities. For Blue Origin, these decisions could result in higher RLV development and operational costs, decreased operational capabilities, and delays to Blue Origin's proposed development schedules.

## **ENVIRONMENTAL IMPACTS**

### **Air Resources**

The proposed project area is currently in attainment under the National Clean Air Act. Impacts on air quality would occur during the construction and operation of the launch site. The estimated increases in emission concentrations from planned construction activities would be small fractions of either state or Federal ambient air quality standards. Construction impacts are expected to be localized and short-term. The estimated increases in ambient background concentrations from operations would be negligible. No significant impacts on air resources would be anticipated.

### **Ecological Resources**

Construction activities would result in the clearing, grading, or disturbance of approximately 308 hectares (760 acres), which is approximately 4.1 percent of the 7,527 hectares (18,600 acres) within the launch site perimeter fence line. Almost all

construction activity would be in vegetation characterized as creosote bush community, which comprises approximately 5,595 hectares (13,825 acres) of the launch site. Because this plant community type is common on the launch site and throughout the Chihuahuan Desert, the anticipated loss would represent only a small portion of this habitat type and would not adversely affect local or regional diversity of plants and plant communities.

Construction activities would cause impacts on wildlife through elimination of vegetation communities (i.e., habitats) and their associated fauna. Small numbers of animals inhabiting the construction area could be displaced by construction activity while others would be expected to disperse to less disturbed areas of the proposed launch site or off site.

Launch and landing noise and sonic booms would have potential for disturbing wildlife; however, the disturbance would be short lived and would have no more effect on local wildlife than military aircraft that routinely fly over the Corn Ranch property on low-level training missions.

No state or federally listed species were observed in surveys of the proposed Blue Origin site conducted in January and April

2005. Based on the habitats present, three state-listed species (Chihuahuan Desert lyre snake, Trans-Pecos black-headed snake, Texas horned lizard) and one federally-listed species (Northern aplomado falcon) could occur in limited numbers in the vicinity of the site. It is conceivable that small numbers of these state-listed reptiles or Northern aplomado falcons could be disturbed by construction activities, launch noise or sonic booms. Any disturbance from launch activities would be brief (less than approximately one minute) and create impacts at the proposed launch site similar to those currently experienced as a result of military aircraft operations.

The FAA conducted informal consultation with the U.S. Fish and Wildlife Service (USFWS) regarding potential impacts to threatened or endangered species. The USFWS concurred with the FAA's determination that the proposed action would not adversely affect listed or candidate species or critical habitat.

#### **Cultural/Native American Resources**

The proposed locations where construction activities would occur for the launch site contain two archaeological sites determined to be eligible for the National Register of Historic Places. Mitigation measures have been proposed to protect these sites during construction. If previously unknown cultural deposits

are discovered, construction activities in the area would halt, and a qualified archaeologist would evaluate the discovery. Appropriate treatment activities would be determined, if necessary, in consultation with the Texas State Historic Preservation Officer (SHPO). Direct impacts to cultural resources from maintenance or operating activities would be unlikely since these activities would take place within areas already disturbed by construction. The FAA, SHPO, and Blue Origin signed a Memorandum of Agreement regarding avoidance of adverse effects to site 41CU695 and mitigation of adverse effects to site 41CU696, Culberson County, Texas.

#### **Hazardous Materials/Waste Management**

The construction activities would use small quantities of hazardous materials, which would result in generation of small volumes of hazardous wastes. The hazardous materials that are expected to be used are common to construction activities and include diesel fuel, gasoline, and liquefied natural gas to fuel the construction equipment, hydraulic fluids, oils and lubricants, welding gases, paints, solvents, adhesives, and batteries. Appropriate hazardous material management techniques would be followed to minimize their use and ensure safe disposal.

Non-hazardous and hazardous waste generated during construction of the launch site would include construction debris, empty containers, spent solvents, waste oil, spill cleanup materials (if used), and lead-acid batteries from construction equipment. Blue Origin would ensure that construction contractors safely remove these wastes from the site for recycling or disposal in accordance with applicable federal, state, and local requirements.

The hazardous material management practices described above for construction would also be followed during launch site operations. The majority of the hazardous materials used in launch operations are the propellants for the launch vehicle and compressed gases. Other hazardous materials would be used in much smaller amounts with on site storage limited to less than 379 liters (100 gallons). Substantial impacts to the environment are not expected from the presence of hazardous materials and wastes during launch site operations.

**Land Use (including Farmland and Section 4(f) Resources)**

Construction of the launch site would permanently cover about 90.3 hectares (223 acres) of desert scrubland with impermeable surfaces, such as building foundations, test pad, parking lots, etc. This relatively small area represents 1.2 percent of the

launch site. Operation of the launch site would necessitate the fencing and enclosure of approximately 7,527 hectares (18,600 acres) of desert scrubland and grassland that are currently used as a private wildlife management area. This acreage will continue to provide habitat for wildlife and land use would be essentially unchanged; only the core facility areas would be converted to industrial use.

No prime farmland, unique farmland, farmland of state importance, or general farmland would be converted to a non-agricultural use as a result of the proposed action. No conflicts with existing agricultural uses would occur as a result of the proposed action. Section 4(f) properties would not be significantly impacted by the proposed action because it does not require the use of any section 4(f) properties, and it does not create a constructive use that substantially impairs the property.

### **Visual Resources**

During construction, the visual landscape would be impacted primarily by construction activities associated with the two launch site access road improvements that would intersect State Highway 54 and the associated vehicle traffic traveling to and from the launch site. A visual impact from construction

activities would result because the launch site facilities would be built 8 kilometers (5 miles) to the east of State Highway 54. Facilities and infrastructure including buildings, storage tanks, launch and landing pads, access roads, parking areas, fencing, and lighting would be constructed. A fire break would be cleared along the perimeter fence to prevent the spread of fire on or off the launch site. The tallest building would be approximately 26 meters (84 feet) high, and would be located 8 kilometers (5 miles) to the east of State Highway 54. Portions of the facility may be visible to motorists traveling on Highway 54, but the proposed construction and operation of the facility would not result in a significant impact on visual resources.

### **Noise**

Construction activities and traffic noise would temporarily increase the ambient noise levels at the proposed launch site. Such activities could potentially create individual noise sources ranging from 70 to 100 A-weighted decibels (dBA) at 30.5 meters (100 feet) from the activities. The construction-related noise could last approximately 12 months but would not be appreciable off site given the size of the property and the distance of the construction activities from the surrounding population.

The nearest public access to the launch and landing platforms would be approximately 8.5 kilometers (5.3 miles) away on Highway 54. Launch noise at that location would be approximately 85 dBA. The nearest residence is approximately 10.9 kilometers (6.8 miles) away and would experience slightly less than 85 dBA. The duration of launch noise would be approximately one minute, with the peak noise lasting from 5 to 15 seconds after launch. The nearest population center, Van Horn, is approximately 40.2 kilometers (25 miles) away. At this distance, the launch noise would be less than 65 dBA, the threshold of significance.

Because Blue Origin's launch vehicle would ascend and descend vertically, sonic booms would propagate away from the Earth's surface during launch and towards the Earth's surface during descent. The peak overpressure, 7.8 kilograms per square meter (1.6 pounds per square foot), would occur at approximately 1.3 kilometers (0.8 mile) from the landing pad. At the closest location that would be occupied by workers or visitors, the overpressure would be 4.9 kilograms per square meter (1.0 pound per square foot), which approximates 85 dBA. At 12.9 kilometers (8 miles) the sonic boom sound level would drop to about 80 dBA, and at 37 kilometers (23 miles) the sonic boom would probably be indiscernible.

### **Geology and Soils (including Floodplains)**

Construction activities have the potential to disturb approximately 308 hectares (760 acres) of soil. Of this total, approximately 90.3 hectares (223 acres) are expected to be permanently covered with impermeable surfaces such as buildings and parking areas. Because of the clay content of the site soils, it may be necessary to strip 0.3 to 1.2 meters (1 to 4 feet) below existing grade prior to construction of the facilities. Depending on the depth of excavation, the volume of soil excavated would range from approximately 10,930 to 43,800 cubic meters (14,300 to 57,300 cubic yards).

Soil erosion due to runoff and wind would be of concern during construction. Best construction management practices would be employed to limit soil loss below significant levels. The proposed site would not be located in the 100-year floodplain.

### **Socioeconomics (including Natural Resources and Energy Supply)**

Construction would require a monthly average of approximately 45 workers, which would help to stimulate the local economy and would create a small number of additional indirect jobs. The economic benefit would be small; however, because the bulk of the construction-generated wages would be spent outside the area

of the proposed launch site. Operations would require approximately 20 to 35 personnel. The additional employment opportunities created by the proposed action would represent an increase of less than one percent in the region's labor force.

The proposed action does not create any major changes that would have a measurable effect on local supplies of energy or natural resources. The proposed action does not require the use of unusual materials or materials in short supply.

#### **Traffic and Transportation**

State Highway 54 would be the road most impacted by construction activities. It is the only access to the construction site and is an infrequently used highway. During the peak period of construction, approximately 70 construction workers would be commuting to the site. The monthly average construction workforce is expected to be approximately 45. In addition there would be deliveries of equipment, supplies, and building materials on a daily basis. Highway 54 is expected to undergo improvements at the beginning of 2006; therefore, no deterioration of the highway should occur.

During facility operations, the commuting workforce would be approximately 20 to 35 workers. During launches, customers and

other visitors would be visiting the site. Shipments of rocket propellants would be needed to fuel the launch vehicles. There would also be shipments of gaseous helium and nitrogen. Diesel fuel would be needed for diesel generators. There would be other shipments of supplies and materials. However, the traffic from operations is expected to be less than that for construction. Existing roads would be well able to handle the traffic without congestion.

#### **Water Resources (including Wetlands and Wild and Scenic Rivers)**

It is expected that two new on site wells would be used to supply construction activities, if necessary. Salt Bolson aquifer drawdown for the construction withdrawal would be 3.6 centimeters (1.4 inches) at 9.1 meters (30 feet) from the withdrawal well (conservatively assuming withdrawal from a single well) after one year of pumping; the drawdown would decrease to 0.083 centimeter (0.033 inch) at 1,609 meters (1 mile) from the well. If it is necessary to screen new wells in the more productive Capitan aquifer, then the drawdown for construction withdrawal would be 0.57 centimeter (0.22 inch) at 9.1 meters (30 feet), decreasing to 0.087 centimeter (0.034 inch) at 1,609 meters (1 mile) from the well. Impacts of this water withdrawal on other possible on site and off site water uses would not be a significant impact.

Best management water control practices, including storage and control of liquids, would be employed for all construction activities in accordance with Texas state regulations. The launch site facility design would incorporate water management and spill containment processes to minimize potential impacts to water resources.

There are no permanent, naturally occurring surface waters or open freshwater systems, wild and scenic rivers, or federally protected wetlands as defined by section 404 of the Clean Water Act on the proposed site. Therefore, there would be no impacts to any of these resources.

### **Airspace**

The airspace above and around the launch site is used by commercial and military aircraft. Prior to scheduling flight countdown activities, Blue Origin would request the FAA's approval for exclusive use of the airspace directly above the launch site for a specific launch and recovery time window, expected to not exceed three hours. The steep flight ascent profile of the Blue Origin reusable launch vehicle ensures that at no time in any nominal ballistic trajectory would the

vehicle's ground track depart from the boundaries of the Corn Ranch.

### **Environmental Justice**

Because construction and operations impacts would not significantly impact the surrounding population, and no minority or low-income populations would be disproportionately affected, no disproportionately high and adverse impacts would be expected on minority or low-income populations.

### **Health and Safety**

Based on Bureau of Labor Statistics data, it was estimated that during construction, 1.8 total lost workdays, no fatalities, and 3.8 total recordable cases of injury, illness, or death could be expected during the 12-month construction period. Using the same statistical data it was estimated that 0.5 total lost workdays, no fatalities, and 1 recordable case of injury, illness, or death could be expected from the operation of the Blue Origin facility.

The proposed launch site is expected to have very limited occurrence of hazardous materials and waste, and thus there would be minimal safety and health risks to workers or members of the public associated with the proposed Blue Origin site.

Because there are no health impacts expected to members of the public (adults or children) from the operation of the proposed launch site, the requirements of Executive Order 13045, "Protection of Children from Environmental Health Risks and Safety Risks" are not applicable to this action.

During the operation of the vehicle, there is the possibility of an accident or off-nominal situation. In the majority of foreseeable off-nominal scenarios, the crew capsule, abort module, and propulsion module would all land within the perimeter fence of the launch site. In some rare cases, the vehicles may land outside the fence line. However, in nearly all cases, the vehicles would stay within the boundaries of private land controlled by Blue Origin and present no danger to the public. In the unlikely event the vehicles impact outside the privately controlled Blue Origin land, the surrounding properties consist of extremely sparsely populated rangeland. During any landing away from the landing pad, the potential exists for crushing vegetation and animals as the vehicle touches down to ground, fire, and, for the propulsion module and abort module, the dispersal of unused propellant.

## **Cumulative Impacts**

Cumulative impacts are the incremental impact of the actions when added to other past, present, and reasonably foreseeable future action regardless of what agency (Federal or non-Federal) or person undertakes such other actions. (40 CFR 1508.7) The cumulative impacts analysis focused on only those past, present, and reasonably foreseeable future actions that have the potential to contribute to cumulative impacts. These actions include the operation of a marble mine in the Sierra Diablo Mountains, tourist traffic to Guadalupe Mountains National Park or Carlsbad Caverns National Park, and current commercial and military aviation activities within Culberson County airspace. These actions were analyzed for their potential to contribute to cumulative transportation and airspace impacts.

The commuters to and from the marble mine, local and tourist traffic, and the projected number of vehicles at the proposed launch site would result in increased traffic along State Highway 54. Currently, approximately 180 vehicles use State Highway 54 each day. Under the proposed action, the total number of vehicles using State Highway 54 would increase to approximately 320 per day (13 vehicles per hour) during the peak construction phase and to approximately 230 per day (10 vehicles per hour) during the operations phase. Increases of this

magnitude would not have a significant impact on local traffic or the normal flow of traffic on State Highway 54. Although a Level-of-Service analysis has not been performed, traffic on Highway 54 can be characterized as free flow or Class A as defined by the National Research Council. Existing roads would be able to handle the proposed increase in traffic without congestion.

Blue Origin launches would compete for airspace with current commercial and military aviation activities in the airspace about the launch site. Blue Origin would attempt to minimize this competition by appropriate timing of launches and coordination of overall air traffic with the FAA pursuant to a letter of agreement with the Albuquerque Air Traffic Control Center, resulting in a small cumulative impact.

#### **Consistency with Community Planning**

The proposed action has been reviewed and has been found to be consistent with State and local planning objectives from the Texas State, Culberson County, and local community governments.

## **No Action Alternative**

Under the no action alternative, the FAA would not issue permits or licenses to Blue Origin for the conduct of launch operations in Culberson County, Texas. Blue Origin would not conduct RLV testing or launch operations at the proposed site and the goals set forth by the CSLA would not be advanced. As part of the no action alternative, the proposed site in Culberson County would remain private property. Blue Origin would be forced to identify other private property options or to reconsider association with state-sponsored spaceport facilities. For Blue Origin, these decisions could result in higher RLV development and operational costs, decreased operational capabilities, and delays to Blue Origin's proposed development schedules.

## **Determination**

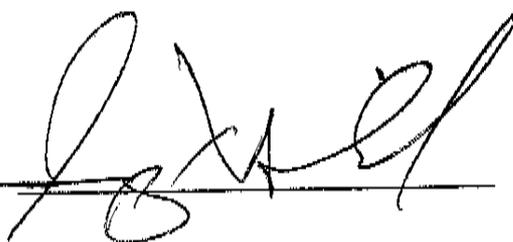
An analysis of the proposed action has concluded that there are no significant short-term or long-term effects to the environment or surrounding populations. After careful and thorough consideration of the facts herein, the undersigned finds that the proposed Federal action is consistent with existing national environmental policies and objectives set forth in Section 101(a) of NEPA of 1969 and that it will not

significantly affect the quality of the human environment or otherwise include any condition requiring consultation pursuant to Section 102 (2) (c) of NEPA. Therefore, an EIS for the proposed action is not required.

Issued in Washington, DC on: August 29, 2006

(for)

Patricia Grace Smith

A handwritten signature in black ink, appearing to read 'Patricia Grace Smith', written over a horizontal line.

Associate Administrator for Commercial Space Transportation