

		ASN	2010-CSA-17-COA
		Case Status	APPROVED
		Date Created	03/23/2010
		Date Submitted	03/31/2010
Proponent Organization		Sponsor	NMSU-PSL
		Attn Of	Stephen B. Hottman
		Address	21st Century Aerospace
		Address2	Mail Stop 3548 NMSU
		City	Las Cruces
		State	NM
		Postal Code	88003
		Telephone	(575) 646-9202
		Email	shottman@psl.nmsu.edu
Declaration		Declaration(a)	Yes
		Declaration(b)	Yes
Point of Contact		Representative	Glen Witt
		Address	MSC PSL
		Address2	P.O. Box 30002
		City	Las Cruces
		State	NM
		Postal Code	88003-8002
		Telephone	(505) 975-2793
		Email	glenwitt@psl.nmsu.edu
Operational Description	Requested Effective Period	Beginning	
		End	
		Light out operation	No
		VFR operation	Yes
		IFR operation	No
		Day operation	Yes
		Night operation	No
		Program Executive Summary	Conduct test, evaluation, and flight training
		Operational Summary	Estimated 12 flights per quarter
	Location	State	NM
		County	Hidalgo
		Nearest Airport	PLAYAS AIR STRIP
		AOR	New Mexico
	Class Of Airspace	Class-A	
		Class-B	
		Class-C	
		Class-D	
		Class-E	
		Class-G	Yes
System Description		Aircraft Type	
		Aircraft Type And Model Description Attachment	1
		Control Station Attachment	1
		Communications System Attachment	1
		List Certified Components (TSO) Attachment	1
		Other Attachment	0
Performance Characteristics		Climb Rate (feet/Minute)	400
		Descent Rate (feet/Minute)	400
		Turn Rate (Degrees/Second)	3
	Cruise Speed	Maximum	47
		Minimum	30
		Approach Speed	35
	Operating Attributes	Maximum MSL	15000
		Minimum MSL	500
		Gross Takeoff Wt	14.5
		Launch/Recovery Attachment	1
Airworthiness		FAA Type Certificate	
		If No FAA Certificate (Public Aircraft Only) Attachment	10
Procedures		Lost Link/Mission Procedures Attachment	1
		Lost Communications Procedures Attachment	1
		Emergency Procedures Attachment	1
Avionics/Equipment		Equipment Suffix Type	X

		GPS	Yes
		Moving map indicator (Command Station)	Yes
		Tracking capability	Yes
		TCA/MCAS	No
		ELT	No
	Transponder	Transponder	No
		On	
		Off	
		Standby	
		Ident	
		Mode S	
		Mode C	
		Transponder Retuneable in Flight	
Lights		Landing	No
		Position/Navigation	No
		Anti-collision	No
		Infrared (IR)	No
Spectrum Analysis Approval		Data Link	Yes
		Data Link Attachment	0
		Control Link(s)	Yes
		Control Link Attachment	0
		Operations utilizing Radio Control (R/C) frequencies as described in Title 47 CFR 95	Yes
		NTIA/FCC Authorization Attachment	1
ATC Communications	Transmitter VHF Band	VHF Band	No
		Quantity	
		In-Flight Retunable	No
	Transmitter UHF Band	UHF Band	No
		Quantity	
		In-Flight Retunable	No
	Transmitter HF band	HF Band	No
		Quantity	
		In-Flight Retunable	No
	Receiver VHF Band	VHF Band	No
		Quantity	
		In-Flight Retunable	No
	Receiver UHF Band	UHF Band	No
		Quantity	
		In-Flight Retunable	No
	Receiver HF band	HF Band	No
		Quantity	
		In-Flight Retunable	No
	Guard (Emergency) Frequencies VHF Band	VHF Band	No
		Quantity	
	Guard (Emergency) Frequencies UHF Band	UHF Band	No
		Quantity	
	Instantaneous Two-Way Voice	Direct to pilot	No
		SATCOM	No
		Relay via aircraft	No
Electronic Surveillance/ Detection Capability		EO/IR	No
		Terrain detection	No
		Weather/icing detection	No
		Radar	No
		Other Attachment	0
		Electronic detection systems	No
		Electronic detection systems attachment	0
		Radar observation	No
		NAS Operational Capability Attachment	0

Visual Surveillance/ Detection Capability	Maximum Distance from UA	Vertical	1199 Feet
		Horizontal	1.0 Nautical Miles
		Airborne based (Chase Aircraft)	No
		Ground based	Yes
		Visual observation from one or more ground sites	Yes
		Forward or side looking cameras	No
		Attachment for All	1
Aircraft Performance Recording		Flight data recording	Yes
		Control station recording	No
		Voice Recording	No
Flight Aircrew Qualifications	Pilots	Private (Written)	Yes
		Private (Certified)	Yes
		Instrument	No
		Commercial	No
		Air Transport	No
		Unique Trained Pilot	No
		Unique Trained Pilot Description	The Orbiter PIC will possess, as a minimum, an FAA pilot certificate for a manned aircraft. Most Orbiter pilots will have greater manned aircraft qualifications (instrument and commercial) qualifications.
		DOD certified/trained	No
		Other Certified Training	No
		Trained on FAR Part 91 Requirement	Yes
Medical Certification Class (FAA or DOD equivalent)	2		
Currency Status	Current on the operation of the Orbiter		
Duty Time Restrictions	No more than 2 hours on flight duty that is followed by at least one hour of rest prior to another flight operation. No more than 10 flight hours within a 24-hour period		
Single UAS Control	Yes		
UAS Description			
Total Numbers of UAS Controlled	1		
	Observers	Private (Written)	No
		Private (Certified)	No
		Instrument	No
		Commercial	No
		Air Transport	No
		Unique Trained Pilot	No
		Unique Trained Pilot Description	The visual observer shall, as a minimum, have taken and passed the written for a private pilot certificate. Most visual observers for the Orbiter flight operations will have attained higher pilot certification (private, instrument, commercial)
		DOD certified/trained	No
		Other Certified Training	No
		Trained on FAR Part 91 Requirement	Yes
		DOD Certified Training Attachment	0
		Medical Certification Class (FAA or DOD equivalent)	2
		Currency Status	Current, having performed visual observer duties or received visual observer refresher training within the past 90 days
		Duty Time Restrictions	No more than 2 hours on visual observers duty that is followed by at least one hour of rest prior to another flight operation. No more than 10 hours of visual observation duty within a 24-hour period.
		Single UAS Control	Yes
		UAS Description	
		Total Numbers of UAS Controlled	1
Special Circumstances		Special Circumstances	<p>This is a COA Application for a renewal of the Orbiter UAS COA (ESA-42) that expires on May 31, 2010. There is no change to the Orbiter UAS or any of the flights operations currently approved by the FAA for this UAS activity in Southwestern New Mexico.</p> <p>The flight operations of the Orbiter UA will only be in remote locations. within Class G airspace, below 1200 feet AGL.. These flight operations locations are situated only over uninhabited surfaces areas. A launch mechanism is used to get the Orbiter airborne and a parachute system is used for recovery and landing.</p> <p>The Frequency Approval from the DoD, Office of Area Frequency Coordinator, White Sands Missile Range is only valid through May 31, 2010, the termination date of COA ESA-42 extension. The Office of the Area Frequency Coordinator will reissue a frequency approval letter when a COA has been issued by the FAA for the 2010/2011 Orbiter UAS flight operations. NMSU/PSL shall ensure that no Orbiter flight operations are conducted anytime it is not in possession of a "Frequency Approval" letter that authorizes the use of the frequencies associated with the Orbiter flight during a specified time period.</p>

Flight Operations Area/Plan

Type	User Defin Point	Loc ID	Degree	Distance	Latitude	Longitude	MSL Ceilin	MSL Floor
USER DEFINED AREA			1					
USER DEFINED AREA			1					

Total Map Attachment 1

Maximum	Minimum	Radius	SUA Description		
	31-56-12.00N		108-32-12.00W	1199	0
	32-35-47.00N		106-44-25.00W	1199	0

47
47

30
30

5.0
5.0