

		ASN	2009-CSA-61-COA
		Case Status	EXPIRED
		Date Created	08/12/2009
		Date Submitted	08/21/2009
Proponent Organization		Sponsor	New Mexico National Guard
		Attn Of	(b) (6)
		Address	47 Bataan Blvd.
		Address2	
		City	Santa Fe
		State	NM
		Postal Code	87508
		Telephone	(202) 267-8565
		Email	(b) (6) @northcom.mil
Declaration		Declaration(a)	Yes
		Declaration(b)	Yes
Point of Contact		Representative	(b) (6)
		Address	47 Bataan Blvd.
		Address2	
		City	Santa Fe
		State	NM
		Postal Code	87508
		Telephone	(505) 259-9858
		Email	(b) (6) @nm.ngb.army.mil
Operational Description	Requested Effective Period	Beginning	
		End	
		Light out operation	Yes
		VFR operation	Yes
		IFR operation	No
		Day operation	Yes
		Night operation	No
		Program Executive Summary	Executive Summary. This is a renewal COA for the current COA of 2008-CSA-41. The New Mexico National Guard will conduct Tactical Raven Unmanned Aircraft System (UAS) Counter-narcotic operations supporting Federal, State and Local Law Enforcement Agencies (LEAs) for the Secure Borders Initiative for the period of one year. The Area of Operation (AOR) is in the extreme southern part of New Mexico.

		Operational Summary	Operational Summary. The New Mexico National Guard (NMNG) currently supports Counter-narcotic Federal, State and Local Law Enforcement Agencies (LEAs) along the United States Border with the Country of Mexico. These day Tactical Raven Unmanned Aerial System (UAS) Counter-narcotic operations are in accordance with state and federal congressional authorities, in uncontrolled airspace (Class G), see and avoid. Operations will not be conducted without ground observers, and positive two-way communications with the New Mexico National Guard Army Aviation Flight Operations. The area of operations (AO), is sparsely populated and has minimal manned aircraft that transition throughout the AO. All Tactical Raven UAS operations will be de-conflicted with other flight traffic by extensive flight planning & NMNG Standard Operating Procedures, and in the event of lost communications or lost link with the Raven TUAS, Air Traffic Control will be notified immediately via appropriate FAA radio frequencies or satellite phone. These procedures also outline risk mitigation, other Raven TUAS emergency procedures, and other pertinent policies to enhance safety of tactical operations. Ground observers will not be more than 1/2 nautical mile from the Raven TUAS. For tactical & operational mission background purposes, the terrain within the AO is open desert and normal visibility can readily exceed this limitation, and to further mitigate risk, a traffic avoidance system is utilized to identify transponder equipped aircraft. This device displays all transponder equipped air traffic within five nautical miles and up to five thousand feet AGL. It has both picture display, and audible alerts to warn the Raven TUAS pilot of any traffic in the area.
	Location	State	NM
		County	Hidalgo
		Nearest Airport	PLAYAS MEDICAL BLDG
		AOR	New Mexico
	Class Of Airspace	Class-A	
		Class-B	
		Class-C	
		Class-D	
		Class-E	
		Class-G	Yes
System Description		Aircraft Type	1988 - RQ-11A/B - Raven
		Aircraft Type And Model Description Attachment	2
		Control Station Attachment	1
		Communications System Attachment	1
		List Certified Components (TSO) Attachment	1
		Other Attachment	0
Performance Characteristics		Climb Rate (feet/Minute)	800
		Descent Rate (feet/Minute)	600
		Turn Rate (Degrees/Second)	15
	Cruise Speed	Maximum	50
		Minimum	17
		Approach Speed	20
	Operating Attributes	Maximum MSL	15000
		Minimum MSL	0
		Gross Takeoff Wt	4.2
		Launch/Recovery Attachment	1
Airworthiness		FAA Type Certificate	

		If No FAA Certificate (Public Aircraft Only) Attachment	1
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	Yes
		Off	Yes
		Standby	Yes
		Ident	No
		Mode S	No
		Mode C	No
		Transponder Retuneable in Flight	No
Lights		Landing	No
		Position/Navigation	Yes
		Anti-collision	Yes
		Infrared (IR)	Yes
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	0
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	Yes
		SATCOM	No
		Relay via aircraft	No
Electronic Surveillance/Detection Capability		EO/IR	Yes
		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	1
Visual Surveillance/Detection Capability	Maximum Distance from UA	Vertical	500 Feet
		Horizontal	0.5 Nautical Miles
		Airborne based (Chase Aircraft)	No
		Ground based	No
		Visual observation from one or more ground sites	Yes
		Forward or side looking cameras	Yes
		Attachment for All	1

Aircraft Performance Recording		Flight data recording	No
		Control station recording	Yes
		Voice Recording	No
Flight Aircrew Qualifications	Pilots	Private (Written)	Yes
		Private (Certified)	No
		Instrument	No
		Commercial	No
		Air Transport	No
		Unique Trained Pilot	Yes
		Unique Trained Pilot Description	US Army Qualified. FAA Private pilot subjects trained and tested.
		DOD certified/trained	Yes
		Other Certified Training	Yes
		Trained on FAR Part 91 Requirement	Yes
		Medical Certification Class (FAA or DOD equivalent)	3
		Currency Status	Class 3 Medical qualifications is with compliance with Army Regulations. UAS pilots interacting with ATC shall have sufficient expertise to perform that task readily. Pilots must have an understanding of and comply with Federal Aviation Regulations and Military Regulations applicable to the airspace where the UAS will operate.
		Duty Time Restrictions	14 hour workday
		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	Yes
		Unique Trained Pilot Description	US Army Qualified. Specific Observer Training including FARs.
		DOD certified/trained	Yes
		Other Certified Training	Yes
		Trained on FAR Part 91 Requirement	Yes
		DOD Certified Training Attachment	0
		Medical Certification Class (FAA or DOD equivalent)	3
		Currency Status	Class 3 Medical qualifications is with Army Regulations. Observers must have been provided with sufficient training to communicate clearly to the pilot any turning instructions required to stay clear of conflicting traffic. Observers will receive training on rules and responsibilities described in 14 CFR 91.111, Operating Near Other Aircraft, and 14 CFR 91.113, Right-of-Way Rules.
		Duty Time Restrictions	14 hour workday

		Single UAS Control	Yes
		UAS Description	
		Total Numbers of UAS Controlled	1
Special Circumstances		Special Circumstances	<p>This is a Renewal COA to 2008-CSA-41.</p> <p>1. Operations are IAW DoD approved Congressional mission along the SW Border in support of the federal border initiative. Training will be conducted only at Ft Bliss (no training in Op area), per SOP guidance.</p> <p>2. Configuration details, other specific equipment, and drawings: The basic RQ-11B Unmanned Aircraft System is defined below: a. Technical Manual 1-1550-695-13&P, Operator and Field Maintenance Manual Including Repair Parts and Special Tools List for Small Unmanned Aircraft System (SUAS) RQ-11B. b. Technical Manual 1-1550-695-CL, Operator's and Crewmember's Checklist, RQ-11B SUAS c. "SUAV Flight Operations", AeroVironment controlled document QSP 7.5-4, dated 8 Dec 2004, with latest updates.</p> <p>3. Special installation instructions: NONE.</p> <p>4. Installation verification and quality checks: NONE.</p> <p>5. The PIC is the person directly responsible for the operation of the UA. The responsibility and authority of the pilot in command as described by 14 CFR 91.3 (or military equivalent), applies to the UAS PIC. o The PIC must pass the required knowledge test equivalent for a private pilot certificate as stated in 14 CFR 61.105, and must maintain keep their aeronautical knowledge up to date, (or military equivalent). o There is no intent to suggest that there is any requirement for the UAS PIC to be qualified as a crewmember of a manned aircraft.</p> <p>6. Medical Certification: 6. Medical Certification: All Army operators and observers are in compliance with Class 3 Medical qualifications in accordance to Army Regulations.</p> <p>7. Flight Operations Area/Plan. This COA supports areas of operation up to 1 nautical miles from the New Mexico southern border area and proceeding 15 miles north. In Airspace "A" there is special terrain that requires a larger area for operational and security purposes. In any situation that a overlap in airspace occurs with New Mexico State University or any other COA agent, proper coordination will be accomplished to insure that only one user is operating in that area.</p>

Type	User Define Area ID	Point	Loc ID	Degree	Distance	Latitude	Longitude	MSL Ceiling	MSL Floor	Maximum Speed	Minimum Speed	Radius	SUA Description
USER DEFINED AREA	Zone Alpha		1		32-14-00.00N		109-02-50.00W	5000	0	55	0		
			2		32-13-00.00N		109-00-00.00W	5000	0	55	0		
			3		32-12-51.00N		108-57-09.00W	5000	0	55	0		
			4		32-19-48.00N		108-43-37.00W	5000	0	55	0		
			5		32-18-53.00N		108-41-47.00W	5000	0	55	0		
			6		32-19-26.00N		108-39-58.00W	5000	0	55	0		
			7		32-13-35.00N		108-30-00.00W	5000	0	55	0		
			8		31-20-00.00N		108-30-00.00W	5000	0	55	0		
			9		31-20-00.00N		109-02-50.00W	5000	0	55	0		
			10		32-14-00.00N		109-02-50.00W	5000	0	55	0		
USER DEFINED AREA	Zone Bravo		1		32-13-35.00N		108-30-00.00W	5000	0	55	0		
			2		32-09-57.00N		108-22-59.00W	5000	0	55	0		
			3		32-13-35.00N		108-00-00.00W	5000	0	55	0		
			4		31-47-00.00N		108-00-00.00W	5000	0	55	0		
			5		31-47-00.00N		108-12-00.00W	5000	0	55	0		
			6		31-20-00.00N		108-12-00.00W	5000	0	55	0		
			7		31-20-00.00N		108-30-00.00W	5000	0	55	0		
			8		32-13-35.00N		108-30-00.00W	5000	0	55	0		
USER DEFINED AREA	Zone Charlie		1		32-13-35.00N		108-00-00.00W	5000	0	55	0		
			2		32-14-41.00N		107-51-08.00W	5000	0	55	0		
			3		32-13-13.00N		107-50-46.00W	5000	0	55	0		
			4		32-11-45.00N		107-52-03.00W	5000	0	55	0		
			5		32-09-23.00N		107-49-29.00W	5000	0	55	0		
			6		32-10-18.00N		107-48-12.00W	5000	0	55	0		
			7		32-09-23.00N		107-45-28.00W	5000	0	55	0		
			8		32-09-12.00N		107-43-16.00W	5000	0	55	0		
			9		32-09-23.00N		107-40-43.00W	5000	0	55	0		
			10		32-10-29.00N		107-38-20.00W	5000	0	55	0		
			11		32-12-40.00N		107-35-57.00W	5000	0	55	0		
			12		32-14-52.00N		107-35-03.00W	5000	0	55	0		
			13		32-15-22.00N		107-30-00.00W	5000	0	55	0		
			14		31-47-00.00N		107-30-00.00W	5000	0	55	0		
			15		31-47-00.00N		108-00-00.00W	5000	0	55	0		
USER DEFINED AREA	Zone Delta		1		32-15-22.00N		107-30-00.00W	5000	0	55	0		
			2		32-13-24.00N		107-22-47.00W	5000	0	55	0		
			3		32-14-14.00N		107-21-09.00W	5000	0	55	0		
			4		32-13-52.00N		107-12-17.00W	5000	0	55	0		
			5		32-15-19.00N		107-04-50.00W	5000	0	55	0		
			6		32-00-36.00N		107-04-50.00W	5000	0	55	0		
			7		32-00-36.00N		107-00-00.00W	5000	0	55	0		
			8		31-47-00.00N		107-00-00.00W	5000	0	55	0		
			9		31-47-00.00N		107-30-00.00W	5000	0	55	0		
			10		32-15-22.00N		107-30-00.00W	5000	0	55	0		