

		ASN	2010-ESA-9-COA
		Case Status	EXPIRED
		Date Created	01/14/2010
		Date Submitted	03/10/2010
Proponent Organization		Sponsor	Department of Military and Veterans Affairs Commonwealth of PA
		Attn Of	(b) (6)
		Address	Fort Indiantown Gap
		Address2	Building 0=47
		City	Annville
		State	PA
		Postal Code	17003-5002
		Telephone	(717) 757-0112
		Email	(b) (6) @us.army.mil
Declaration		Declaration(a)	Yes
		Declaration(b)	Yes
Point of Contact		Representative	(b) (6)
		Address	DMVA-Ft. Indiantown Gap
		Address2	BLDG 0-47
		City	Annville
		State	PA
		Postal Code	17003-5002
		Telephone	(717) 757-0112
		Email	(b) (6) @us.army.mil
Operational Description	Requested Effective Period	Beginning	
		End	
		Light out operation	No
		VFR operation	Yes
		IFR operation	No
		Day operation	Yes
		Night operation	Yes
		Program Executive Summary	Request a renewal of Certificate of Authorization (COA) certificate (2008-ESA-40) signed December 29, 2008. The purpose of this Certificate of Authorization (COA) is to support the Pennsylvania Army National Guard (PANG) proficiency training with the RQ-7B Shadow. The PANG's on-going mission is to conduct training and certification of UAS operators. The PANG stands ready to deploy world-wide in support of both combat and humanitarian missions.
		Operational Summary	UAS Operation: Launch and recovery conducted at Muir AAF per ATC instructions. Launch and recovery will be to/from the east or west. UAS will fly directly to/from R5802. Other than launch and recovery, all UAS operations will be conducted in R5802. Route of flight is over sparsely populated areas. Start/Stop: The windows of operations fall between 0700 and 2400 local. Number of flights/operations: Multiple flight operations, intermittent from 0700 to 2400 hours, 5 days a month, 12 months a year. Duration of operations: Approximately five to six hours per flight. Lights out operations: None. Nighttime operations: Yes. Will not be allowed outside of restricted area with the exception of launch and recovery which will take place at Muir AAF. Multiple ground observers used and are trained on UAS lighting configuration. UAS are observed by ATC utilizing Stars Lite display.
	Location	State	PA
		County	Lebanon

		Nearest Airport	MUIR AAF (FORT INDIANTOWN GAP)
		AOR	Pennsylvania
	Class Of Airspace	Class-A	
		Class-B	
		Class-C	
		Class-D	Yes
		Class-E	
		Class-G	
System Description		Aircraft Type	8063 - Shadow - RQ-7B
		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)	500
		Descent Rate (feet/Minute)	1400
		Turn Rate (Degrees/Second)	20
	Cruise Speed	Maximum	110
		Minimum	60
		Approach Speed	80
	Operating Attributes	Maximum MSL	15000
		Minimum MSL	10
		Gross Takeoff Wt	375.0
		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	U
		GPS	Yes
		Moving map indicator (Command Station)	Yes
		Tracking capability	Yes
		TCA/MCAS	No
		ELT	No
	Transponder	Transponder	Yes
		On	Yes

		Off	Yes
		Standby	Yes
		Ident	Yes
		Mode S	No
		Mode C	Yes
		Transponder Retuneable in Flight	Yes
Lights		Landing	No
		Position/Navigation	Yes
		Anti-collision	Yes
		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	No
		NTIA/FCC Authorization Attachment	0
ATC Communications	Transmitter VHF Band	VHF Band	Yes
		Quantity	1
		In-Flight Retunable	Yes
	Transmitter UHF Band	UHF Band	Yes
		Quantity	1
		In-Flight Retunable	Yes
	Transmitter HF band	HF Band	No
		Quantity	
		In-Flight Retunable	No
	Receiver VHF Band	VHF Band	Yes
		Quantity	1
		In-Flight Retunable	Yes
	Receiver UHF Band	UHF Band	Yes
		Quantity	1
		In-Flight Retunable	Yes
	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	Yes

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	Yes
		NAS Operational Capability Attachment	0
Visual Surveillance/Detection Capability	Maximum Distance from UA	Vertical	3000 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	Yes
		Attachment for All	1
Aircraft Performance Recording		Flight data recording	Yes
		Control station recording	Yes
		Voice Recording	No
Flight Aircrew Qualifications	Pilots	Private (Written)	No
		Private (Certified)	No
		Instrument	No
		Commercial	No
		Air Transport	No
		Unique Trained Pilot	No
		Unique Trained Pilot Description	Pilots and observers are DOD trained and certified. All control operators will be medically cleared for duty by a military flight surgeon annually. All personnel in designated positions (instructors, control operators, ground, and flight observers) have a current FAA Class III flight physical or the military equivalent to perform their duties.
		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	The flight crew maintains currency IAW Department of the Army and DOD regulations. Troop D 2-104th CAV have had extensive experience with their equipment during their recent deployment to Iraq.
		Duty Time Restrictions	UAS flights are daily with a total of 5-6 hours of flight time. Air Crew will operate UAS IAW Department of the Army and DOD regulations and standards.
		Single UAS Control	Yes
		UAS Description	Air crew will be responsible for operating and observing 1 UAS at a time.
		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	Same as pilot.
		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	Same as pilot
		Duty Time Restrictions	Same as pilot
		Single UAS Control	Yes
		UAS Description	Same as pilot
		Total Numbers of UAS Controlled	1
Special Circumstances		Special Circumstances	This request is a renewal. All UAS operations remain the same. Army operators, pilots and observers are trained and certified IAW DOD/Army standards. UAS are monitored by radar and ground observers.

Flight Operations Area/Plan

Type	User Define Area ID	Point	Loc ID	Degree	Distance	Latitude	Longitude	MSL Ceiling	MSL Floor	Maximum Speed	Minimum Speed	Radius	SUA Description
DEPARTURE	40-26-09.00N			76-34-48.00W	2500	2500	10		120	60		3.0	
SUA	Restricted area - 5802A: BEGINNING AT LAT. 40-27-30N, LONG. 76-44-34W; TO LAT. 40-29-31N, LONG. 76-39-7W; TO LAT. 40-28-31N, LONG. 76-36-21W; TO LAT. 40-25-6N, LONG. 76-44-47W; TO THE POINT OF BEGINNING.												

Total Map Attachment 1