

		ASN	2011-WSA-28-COA
		Case Status	APPROVED
		Date Created	02/14/2011
		Date Submitted	03/23/2011
Proponent Organization		Sponsor	United States Special Operations Command (USSOCOM)
		Attn Of	XXXXXXXXXX Exemption 6 & Exemption 3, 10 USC 130b
		Address	100 Bartley St.
		Address2	Ste. 110 S
		City	Hurlburt Field
		State	FL
		Postal Code	32544
		Telephone	XXXXXXXXXX Exemption 6 & Exemption 3, 10 USC 130b
		Email	XXXXXXXXXX Exemption 6 & Exemption 3, 10 USC 130b
Declaration		Declaration(a)	Yes
		Declaration(b)	Yes
Point of Contact		Representative	XXXXXXXXXX Exemption 6 & Exemption 3, 10 USC 130b
		Address	100 Bartley St. Ste. 110S
		Address2	
		City	Hurlburt Field
		State	FL
		Postal Code	32544
		Telephone	XXXXXXXXXX Exemption 6 & Exemption 3, 10 USC 130b
		Email	XXXXXXXXXX Exemption 6 & Exemption 3, 10 USC 130b
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 approval for RQ-7 Shadow operations for Pilot/Operator proficiency and integration training that will provide persistent organic ISR for SOF personnel in support of U.S. Special Operations Command (USSOCOM) objectives. Training will be conducted entirely within the Pinon Canyon Military Operations Area (MOA) located approximately 27 miles northeast of Trinidad, CO. The training program curriculum is USSOCOM certified and is compliant with USSOCOM Directive 350-9 to include; hands-on system operation from fixed position, simulator training, airspace management, standard operating procedures and system malfunction troubleshooting and recovery. Flights will be conducted by USSOCOM under the direction of certified USSOCOM personnel. Aerial observers are also certified Shadow operators.
		Operational Summary	Single Shadow UAS operations in the Pinon Canyon MOA will be conducted within the activated Pinon Canyon MOA and Class G airspace from the surface up to but not including 4,000 feet AGL. Operations will be conducted a maximum of 6 days a week and up to 12-hours per day in VFR conditions. Operations between the hours of sunset to sunrise will be isolated in an area within 3 NM from the Pinon Canyon AAF over the Fort Carson Military Reservation and observers will be aided with night vision goggles (NVGs); this area may also be used for daylight missions and below 2000' AGL without the aid of NVGs. Visual observers will remain in communication with the PIC and will be positioned so that they remain within visual line of sight of the UAS during all operations. Chase aircraft will be utilized for daylight-only missions operating above 2000' AGL and outside 3NM from the Pinon Canyon AAF and require weather minimums of 3000'/3. Chase aircraft pilots are required to be in contact with Denver ARTCC, as well as the GCS. All flights (including chase aircraft) will be conducted with functional transponders and Mode C. The Launch and Recovery Site (LRS) will have 2 Ground Control Stations (GCSs) one primary while the other serves as a backup. Operators will also have 1 smaller, but equally capable, Tactical GCS (TGCS) as a tertiary measure.

	Location	State	CO
		County	Las Animas
		Nearest Airport	PINON CANYON
		AOR	Colorado
	Class Of Airspace	Class-A	
		Class-B	
		Class-C	
		Class-D	
		Class-E	Yes
		Class-G	Yes
System Description		Aircraft Type	102154768 - Shadow
		Aircraft Type And Model Description Attachment	3
		Control Station Attachment	2
		Communications System Attachment	1
		List Certified Components (TSO) Attachment	1
		Other Attachment	0
Performance Characteristics		Climb Rate (feet/Minute)	500
		Descent Rate (feet/Minute)	500
		Turn Rate (Degrees/Second)	10
	Cruise Speed	Maximum	110
		Minimum	50
		Approach Speed	60
	Operating Attributes	Maximum MSL	15000
		Minimum MSL	200
		Gross Takeoff Wt	380.0
		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	G
		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	Yes
		Mode C	Yes
		Transponder Retuneable in Flight	Yes
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	No
		NTIA/FCC Authorization Attachment	4
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	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	Yes
		Quantity	1
	Instantaneous Two-Way Voice	Direct to pilot	Yes
		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	Yes
		NAS Operational Capability Attachment	0
Visual Surveillance/Detection Capability	Maximum Distance from UA	Vertical	2000 Feet
		Horizontal	3.0 Nautical Miles
		Airborne based (Chase Aircraft)	Yes
		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	Yes
Flight Aircrew Qualifications	Pilots	Private (Written)	No
		Private (Certified)	No
		Instrument	No
		Commercial	No
		Air Transport	No
		Unique Trained Pilot	Yes
		Unique Trained Pilot Description	Trained IAW AR 90-23 and the Army Shadow Course of Instruction which has been validated by USSOCOM.

		DOD certified/trained	Yes
		Other Certified Training	No
		Trained on FAR Part 91 Requirement	Yes
		Medical Certification Class (FAA or DOD equivalent)	2
		Currency Status	All operators are required to meet medical standards.
		Duty Time Restrictions	Duty day will not exceed 8 hours.
		Single UAS Control	Yes
		UAS Description	Operators will only control one UAS at a given time.
		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	Trained IAW AR 90-23 and the Army Shadow Course of Instruction which has been validated by USSOCOM. Airborne observers are also Shadow Air Vehicle Operators.
		DOD certified/trained	Yes
		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	All observers are required to meet medical standards.
		Duty Time Restrictions	Duty day will not exceed 8 hours.
		Single UAS Control	Yes
		UAS Description	All observers will only observe one UAS at a given time.
		Total Numbers of UAS Controlled	1
Special Circumstances		Special Circumstances	Chase Plane SOP v5.1.pdf discusses Chase Aircraft re-join.