

		ASN	2008-WSA-58-COA
		Case Status	(b) (7)(E)
		Date Created	09/30/2008
		Date Submitted	09/30/2008
Proponent Organization		Sponsor	Customs and Border Protection
		Attn Of	(b) (6), (b) (7)(C)
		Address	1355 Customs Drive
		Address2	
		City	MARB
		State	CA
		Postal Code	92518
		Telephone	(b) (6), (b) (7)(C)
		Email	(b) (6), (b) (7)(C) @dhs.gov
Declaration		Declaration(a)	Yes
		Declaration(b)	Yes
Point of Contact		Representative	(b) (6), (b) (7)(C)
		Address	1355 Customs Way
		Address2	
		City	MARB
		State	CA
		Postal Code	92518
		Telephone	(b) (6), (b) (7)(C)
		Email	(b) (6), (b) (7)(C) @dhs.gov
Operational Description	Requested Effective Period	Beginning	
		End	
		Light out operation	(b) (7)(E)
		VFR operation	
		IFR operation	
		Day operation	
		Night operation	

		Program Executive Summary	This is a transit test COA from (b) (7)(E) and return. This COA is required for maritime radar systems integration. This COA is required for the development phase of the CBP UAS Marine variant. This profile will not be flown more (b) (7)(E)
		Operational Summary	As DHS pursued a maritime UAS variant, maritime radar testing in (b) (7)(E) will be required prior to CBP conducting maritime operations in (b) (7)(E). This integration testing is similar to (b) (7)(E). The operation will launch/recover from (b) (7)(E). The route of flight will enter (b) (7)(E). Recovery altitude will be (b) (7)(E).
	Location	State	(b) (7)(E)
		County	(b) (7)(E)
		Nearest Airport	GRAY BUTTE FIELD
		AOR	California - (b) (7)(E)
	Class Of Airspace	Class-A	(b) (7)(E)
		Class-B	
		Class-C	
		Class-D	
		Class-E	
		Class-G	
System Description		Aircraft Type	(b) (7)(E) - Predator B
		Aircraft Type And Model Description Attachment	1
		Control Station Attachment	1
		Communications System Attachment	1
		List Certified Components (TSO) Attachment	1
		Other Attachment	(b) (7)(E)
Performance Characteristics		Climb Rate (feet/Minute)	
		Descent Rate (feet/Minute)	

		Turn Rate (Degrees/Second)	(b) (7)(E)	
	Cruise Speed	Maximum		
		Minimum		
		Approach Speed		
	Operating Attributes	Maximum MSL		
		Minimum MSL		
		Gross Takeoff Wt		
		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	(b) (7)(E)	
		GPS		
		Moving map indicator (Command Station)		
		Tracking capability		
		TCA/MCAS		
		ELT		
	Transponder	Transponder	Yes	
		On	(b) (7)(E)	
		Off		
		Standby		
		Ident		

		Mode S	(b) (7)(E)	
		Mode C		
		Transponder Retuneable in Flight		
Lights		Landing		
		Position/Navigation		
		Anti-collision		
		Infrared (IR)		
Spectrum Analysis Approval		Data Link		
		Data Link Attachment		
		Control Link(s)		
		Control Link Attachment		
		Operations utilizing Radio Control (R/C) frequencies as described in Title 47 CFR 95		
		NTIA/FCC Authorization Attachment		
ATC Communications	Transmitter VHF Band	VHF Band		
		Quantity		
		In-Flight Retunable		
	Transmitter UHF Band	UHF Band		
		Quantity		
		In-Flight Retunable		
	Transmitter HF band	HF Band		
		Quantity		
		In-Flight Retunable		
	Receiver VHF Band	VHF Band		

		Quantity	(b) (7)(E)	
		In-Flight Retunable		
	Receiver UHF Band	UHF Band		
		Quantity		
		In-Flight Retunable		
	Receiver HF band	HF Band		
		Quantity		
		In-Flight Retunable		
	Guard (Emergency) Frequencies VHF Band	VHF Band		
		Quantity		
	Guard (Emergency) Frequencies UHF Band	UHF Band		
		Quantity		
	Instantaneous Two-Way Voice	Direct to pilot		
		SATCOM		
		Relay via aircraft		
Electronic Surveillance/Detection Capability		EO/IR	Yes	
		Terrain detection	(b) (7)(E)	
		Weather/icing detection		
		Radar		
		Other Attachment		
		Electronic detection systems		

		Electronic detection systems attachment	(b) (7)(E)
		Radar observation	
		NAS Operational Capability Attachment	
Visual Surveillance/Detection Capability	Maximum Distance from UA	Vertical	3000 Feet
		Horizontal	2.5 Nautical Miles
		Airborne based (Chase Aircraft)	(b) (7)(E)
		Ground based	
		Visual observation from one or more ground sites	Yes
		Forward or side looking cameras	Yes
		Attachment for All	(b) (7)(E)
Aircraft Performance Recording		Flight data recording	
		Control station recording	
		Voice Recording	
Flight Aircrew Qualifications	Pilots	Private (Written)	
		Private (Certified)	
		Instrument	
		Commercial	
		Air Transport	
		Unique Trained Pilot	
		Unique Trained Pilot Description	

		DOD certified/trained	(b) (7)(E)
		Other Certified Training	Yes
		Trained on FAR Part 91 Requirement	Yes
		Medical Certification Class (FAA or DOD equivalent)	(b) (7)(E)
		Currency Status	A pilot that acts as a PIC shall have no less than three qualified proficiency events within the preceding 90 days.
		Duty Time Restrictions	<p>IAW DCMAI 8210.1, para 1.9.2., the basic crew duty period shall not exceed 12 consecutive hours. The GFR is authorized to grant extensions to the basic crew duty period of not more than two hours on a case-by-case basis. The CDO and the assigned PIC(s) must assess each crewmember's fitness for flight duty prior to launch/shift change. Additionally, any assigned crewmember may effect termination or non-acceptance of flight duty without prejudice based on his/her personal assessment.</p> <p>UAS crewmembers may fly no more than 8 hours in any 24-hour period; unless consecutive hours of off-duty time (3.7.1A) have been met. Additionally, without GFR approval, crewmembers may fly no more than 4 consecutive hours without at least a 30-minute rest break. IAW ASI-0009 para 1.9.3.1, it is highly recommended that crewmembers swap out every 2 hours to minimize the effects of fatigue.</p>
		Single UAS Control	(b) (7)(E)
		UAS Description	
		Total Numbers of UAS Controlled	
	Observers	Private (Written)	
		Private (Certified)	
		Instrument	
		Commercial	
		Air Transport	
		Unique Trained Pilot	
		Unique Trained Pilot Description	
		DOD certified/trained	(b) (7)(E)
		Other Certified Training	Yes
		Trained on FAR Part 91 Requirement	Yes

		DOD Certified Training Attachment	(b) (7)(E)
		Medical Certification Class (FAA or DOD equivalent)	
		Currency Status	An individual that acts as a visual observer shall have at least one qualified proficiency event within the preceding 90 days, or refresher training will be required.
		Duty Time Restrictions	The visual observer is part of the aircrew and as such meets the same duty restrictions as a PIC.
		Single UAS Control	(b) (7)(E)
		UAS Description	
		Total Numbers of UAS Controlled	
Special Circumstances		Special Circumstances	For all radar integration and maritime tests, CBP will (b) (7)(E) prior to flying the provisions listed in this COA. This Coa+A1 is solely for the testing and development of the CBP UAS Marine Variant

## Flight Operations Area/Plan

[illegible]



WAYPOINT  
WAYPOINT  
WAYPOINT

SUA  
ARRIVAL

(b) (7)(E)

(b) (7)(E)

Total Map  
Attachment