

		ASN	2008-WSA-55-COA
		Case Status	EXPIRED
		Date Created	07/24/2008
		Date Submitted	09/16/2008
Proponent Organization		Sponsor	NASA ARC
		Attn Of	Mark Sumich
		Address	Aviation Management Office
		Address2	Mail Stop 158-1
		City	Moffett Field
		State	CA
		Postal Code	94035
		Telephone	(650) 604-6193
		Email	mark.sumich@nasa.gov
Declaration		Declaration(a)	Yes
		Declaration(b)	Yes
Point of Contact		Representative	Corey Ippolito
		Address	NASA Ames Research Center, N260/112
		Address2	
		City	Moffett Field
		State	CA
		Postal Code	94035
		Telephone	(650)604-1605
		Email	corey.a.ippolito@nasa.gov
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	The Exploration Aerial Vehicle (EAV) Program provides low-cost, low-risk flight test capability for validating flight control technologies in support of the Payload Directed Flight (PDF) project under the Subsonic Fixed-Wing (SFW) project which is part of aviation research conducted under funding from NASA's Aerospace Research Mission Directorate (ARMD).
		Operational Summary	EAV will conduct flights with a frequency as high as 5 times per week, 1 week per month. Flights will be conducted throughout the year with as many as 120 flights per year. Each flight test date will consist of multiple flights. Each flight has a maximum duration of 60 minutes.
	Location	State	CA
		County	Santa Clara
		Nearest Airport	MOFFETT FEDERAL AFLD
		AOR	California - Northern
	Class Of Airspace	Class-A	
		Class-B	
		Class-C	
		Class-D	Yes
		Class-E	
		Class-G	
System Description		Aircraft Type	102154739 - Other
		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)	500
		Turn Rate (Degrees/Second)	45
	Cruise Speed	Maximum	50
		Minimum	20
		Approach Speed	30
	Operating Attributes	Maximum MSL	2500
		Minimum MSL	0
		Gross Takeoff Wt	23.0
		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	X
		GPS	Yes
		Moving map indicator (Command Station)	Yes
		Tracking capability	Yes
		TCA/MCAS	No
		ELT	No
		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	Yes
		Quantity	1
		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	Yes
		Quantity	1
		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	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	1000 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	0
Aircraft Performance Recording		Flight data recording	Yes
		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	No
		Unique Trained Pilot Description	Manual R/C control by pilots.
		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	PIC current.
		Duty Time Restrictions	None.
		Single UAS Control	Yes
		UAS Description	
		Total Numbers of UAS Controlled	1
		Observers	Observers
Private (Certified)	No		
Instrument	No		
Commercial	No		
Air Transport	No		
Unique Trained Pilot	No		
Unique Trained Pilot Description	Ground-based observers.		
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	Observers current.		
Duty Time Restrictions	None.		
Single UAS Control	Yes		
UAS Description			
Total Numbers of UAS Controlled	1		
Special Circumstances		Special Circumstances	This is a renewal of COA 2007-AHQ-13. Moffett Field is under the Mode C veil of SFO. The EAV has two control links on different frequencies and both must be functioning properly before flight and the EAV will abort and land if either control link becomes inoperative during flight. The FAA has previously determined that this requirement provides an acceptable mitigation for the absence of a Mode C transponder.

Flight Operations Area/Plan

Type	User Defin	Point	Loc ID	Degree	Distance	Latitude	Longitude	MSL Ceilin
USER DEFINED ARE		KNUQ		1		NUQ-APT		0

Total Map Attachment 1

MSL Floor	Maximum	Minimum	S Radius	SUA Description	
0			37-24-58.10N	122-02-56.90W	1000

0

50

20

3.0