



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON DC

DAFMAN11-502_DAFGM2025-01
14 AUGUST 2025

MEMORANDUM FOR DISTRIBUTION C
MAJCOMs/FLDCOMs/FOAs/DRUs

FROM: HQ USAF/A3S
1480 Air Force Pentagon
Washington, DC 20330-1480

SUBJECT: Department of the Air Force Guidance Memorandum to DAFMAN 11-502,
Group(s) 1 and 2 Small Unmanned Aircraft Systems, 10 January 2025

By Order of the Secretary of the Air Force, this Department of the Air Force Guidance Memorandum immediately implements changes to DAFMAN 11-502, *Group(s) 1 and 2 Small Unmanned Aircraft Systems*, to replace AFSOC Form 13 references and attachment with DAF Form 11, *Groups 1 and 2 sUAS Evaluation*, update Air Deliverable sUAS and Initial Cadre references, and updated DoD UAS categories listed in Joint Publication 3-30, *Joint Air Operations*. Compliance with this memorandum is mandatory. To the extent its directions are inconsistent with current DAF and other Joint Publications, the information herein prevails, in accordance with Department of the Air Force Instruction (DAFI) 90-160, *Publications and Forms Management*.

This guidance is applicable to all DAF civilian employees, uniformed members of the Regular Air Force, the Air Force Reserve, the Air National Guard (ANG), the United States Space Force (USSF), Civil Air Patrol (CAP), when the services of CAP are used by any department or agency in any branch of the Federal Government, employing or testing Small Unmanned Aircraft Systems (sUAS) Groups 1 and 2, and those with a contractual obligation to abide by the terms of DAF publications to include contractors who are also governed by Air Force Instruction (AFI) 10-220, Contractor's Flight and Ground Operations, employing or testing Groups 1 and 2 UAS.

Current guidance in DAFMAN 11-502 remains in effect with the following changes: corresponding paragraphs in **Chapter 2**, **Chapter 3**, and **Chapter 4**; supporting information in **Attachment 1**; **Figure A2.1**, DoD UAS Categories, in **Attachment 2**; and prescribed DAF Form 11 in **Attachment 5**. These changes are listed in the attachment of this guidance memorandum.

Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and are disposed in accordance with the Air Force Records Disposition Schedule which is located in the Air Force Records Information Management System.

Department of the Air Force Guidance Memorandum to DAFMAN 11-502, *Group(s) 1 and 2 Small Unmanned Aircraft Systems*

This memorandum becomes void after one year has elapsed from the date of this memorandum, or upon publication of an interim change (IC) or rewrite of the affected publication, whichever is earlier.

JOHN M. KLEIN JR.
Major General, USAF
Assistant Deputy Chief of Staff, Operations

Attachment:
Guidance Changes

Department of the Air Force Guidance Memorandum to DAFMAN 11-502, *Group(s) 1 and 2 Small Unmanned Aircraft Systems*

Guidance Changes

Chapter 2

ROLES AND RESPONSIBILITIES

2.7.12. (Change) Ensure in-processing for sUAS-O(s) includes a records review. In-processing will include completion of at least one local area orientation flight under the supervision of a sUAS-I.

Chapter 3

TRAINING

(Change) **3.11. Air Launched sUAS.** sUAS launched from either a manned aircraft or Remotely Piloted Aircraft from a common launch tube, aircraft hard point, or pylon. Host aircraft qualified aircrew will comply with AFMAN 11-2MDS guidance for sUAS employment, operator training, currency, and flight/simulator requirements. Aircrew members certified or qualified to perform air launched sUAS operations will not perform ground launched sUAS operations without completion of IT as defined in **paragraph 3.2.**

(Add) **3.13. Familiarization Training**—Training conducted by a sUAS-I for the purpose of allowing individuals to gain an understanding of sUAS operations and capabilities. Familiarization training does not result in sUAS-O certification.

Chapter 4

STANDARDIZATION/EVALUATION

4.5. Documentation. (Change) Results of the Biennial evaluation, administered by a sUAS-I, will be documented on DAF Form 11, *Groups 1 and 2 sUAS Evaluation*, MAJCOM equivalent or approved form, and an AF Form 1381. Documents will be filed in individual's training record located in SUASMAN. **(T-2)** See **Attachment 4** and **Attachment 5.**

4.5.1. (Change) DAF Form 11 or MAJCOM equivalent. sUAS-Is will use the DAF Form 11 or MAJCOM equivalent or approved form to conduct and record IT, MT, DT, and sUAS-I upgrade training evaluation results. **(T-2)**

4.5.1.1. (Change) All graded areas on the Evaluation Form will be marked by the sUAS-I with a “SAT,” “UNSAT,” or “N/A” entry in the corresponding Grade column. An “UNSAT” entry in any graded area that is marked with an asterisk (*) automatically constitutes an overall evaluation grade of “UNSAT.” **(T-2) Note:** Areas highlighted in red on the DAF Form 11 require an entry for all types of evaluations. Areas not highlighted in red are marked with a “N/A” entry unless they apply during the evaluation.

Department of the Air Force Guidance Memorandum to DAFMAN 11-502, *Group(s) 1 and 2 Small Unmanned Aircraft Systems*

(Change) **4.6. Initial Cadre.** Initial cadre: A sUAS-I appointed by the unit commander as initial cadre whenever there is a newly developed unit sUAS program, the unit acquires a new mission set requiring additional Mission Training (MT) certification, or the unit acquires a new platform where no sUAS-I currently exists. In some instances, it will be necessary for units standing up a new sUAS program, mission design series or converting from one design series aircraft, equipment, and capability to another to form an initial cadre of personnel for whom certain training certification requirements may be waived.

4.6.1. (Change) Unit commander will designate initial cadre through an MFR and submit to the MAJCOM for approval. **(T-2)** The MFR will contain name, rank, existing UAS certifications (if any), associated flight hours, AFSOC/A3OU IT training approval letter date, and document training and evaluation requirements associated with initial cadre status for the new aircraft/program. **(T-2)** MAJCOMs may use this MFR to restrict authorized operations until the unit gains sufficient experience or training in the new mission set or platform. Upon receipt of a signed initial cadre MFR, SUAS Program Managers will upload to the member's record in SUASMAN. Include the document in each member's training folder. **(T-3)**

4.6.2. (Change) A minimum of two sUAS-Is will be designated to develop the IT and MT programs and to initiate a sUAS-I upgrade program IAW the example in **Attachment 6. (T-3)** Attempts should always be made to seek currently certified sUAS-Is on the same platform from within the MAJCOM or other local units to assist in the program establishment.

4.6.3. (Change) Initial cadre training.

4.6.3.1. (Change) If an approved DoD, FTU, vendor, or unit IT certification courses are available, make every effort to send initial cadre members to one of those courses. Training will be accomplished IAW the agency's training syllabi.

4.6.3.2. (Change) If an approved DoD, FTU, vendor, or unit IT certification courses are not available or practical, initial cadre will gain certification IAW unit developed training programs utilizing unit developed courseware approved by AFSOC/A3OU.

4.6.4. (Change) Initial cadre will:

4.6.4.1. (Change) Develop training materials for each specific sUAS IT and MT programs supporting certifications for all applicable crew positions. As a minimum, these training materials will consist of both ground and flying training tasks. **(T-2)** See **paragraph 3.2** and **paragraph 3.6** for further requirements.

4.6.4.2. (Change) Develop aircraft flight manuals and operating checklists, if required. **(T-3)** Vendor supplied manuals and checklists are sufficient and preferred, provided the manuals and checklists are printed in English and determined by the initial cadre to be accurate.

4.6.4.3. (Change) Develop aircraft specific standardization and evaluation tests (Master Question File/Standard Question Bank). **(T-3)** Cover both certification and mission specific emphasis areas.

Department of the Air Force Guidance Memorandum to DAFMAN 11-502, *Group(s) 1 and 2 Small Unmanned Aircraft Systems*

4.6.4.4. (Change) Develop Syllabus of Instruction. Syllabus of Instructions will be certified by AFSOC/A3OU prior to training non-initial cadre crew members. (T-3)

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

Prescribed Forms

(Add) DAF Form 11, *Groups 1 and 2 sUAS Evaluation*

Adopted Forms

(Delete) AFSOC Form 13, *Group 1 and 2 sUAS Evaluation Form*

Terms

(Delete) Familiarization Training—Training conducted under the direct supervision of a sUAS-I for the purpose of allowing individuals to gain an understanding of sUAS operations and capabilities. Familiarization training does not result in sUAS-O certification.

Attachment 2

DOD UAS CATEGORIES

Figure A2.1. (Change) DoD UAS Categories (Ref: JP 3-30, Joint Air Operations, 28 April 2025).

Unmanned Aircraft Categorization Chart

Category	MGTW (lbs.)	Normal Operating Altitude (ft)	Speed (KIAS)
Group 1	0 - 20	< 1200 AGL	100
Group 2	21 - 55	< 3500 AGL	< 250
Group 3	< 1320	< 18,000 MSL	
Group 4	> 1320		> 18,000 MSL
Group 5			

Legend

AGL	above ground level	lbs	pounds
ft	feet	MGTW	maximum gross takeoff weight
KIAS	knots indicated airspeed	MSL	mean sea level

Department of the Air Force Guidance Memorandum to DAFMAN 11-502, *Group(s) 1 and 2 Small Unmanned Aircraft Systems*

Attachment 5

SAMPLE DAF FORM 11 GROUPS 1 AND 2 sUAS EVALUATION
(Change)

Figure A5.1. Sample Groups 1 and 2 sUAS Evaluation.

GROUPS 1 and 2 sUAS EVALUATION			
PART I - GENERAL INFORMATION			
NAME (Last, First, Middle Initial)	GRADE	DoD ID	DATE
UNIT / LOCATION		sUAS (MDS / SYSTEM NAME)	EVALUATION TYPE
PART II - EVALUATION RESULTS			
GRADED AREA	GRADE	GRADED AREA	GRADE
1. SAFETY*		9. FLIGHT PLANNING	
2. JUDGEMENT*		10. BRIEFINGS	
3. FLIGHT DISCIPLINE*		11. TAKEOFF / LAUNCH	
4. EMERGENCY PROCEDURES*		12. MISSION EXECUTION	
5. WRITTEN EXAM / CLOSED BOOK*		13. LANDING / RECOVERY	
6. WRITTEN EXAM / OPEN BOOK		14. POST FLIGHT PROCEDURES	
7. VERBAL EXAM		15. INSTRUCTIONAL ABILITY (sUAS-I)	
8. AIRSPACE RULES / PROCEDURES		<small>NOTE: A grade of "UNSATISFACTORY" in any graded area marked with an (*) results in an overall evaluation grade of "UNSATISFACTORY". An Unsatisfactory grade in Graded Area # 15 only affects sUAS-I certification.</small>	
EVALUATION / MISSION DESCRIPTION			
COMMENTS / RECOMMENDED OR DIRECTED TRAINING			
EXPIRATION DATE		OVERALL EVALUATION GRADE	
PART III - ENDORSEMENT			
EVALUATOR NAME / GRADE	UNIT	SIGNATURE	DATE
REVIEWER NAME / GRADE	UNIT	SIGNATURE	DATE
EXAMINEE NAME / GRADE	UNIT	SIGNATURE	DATE

DAF FORM 11 2025XXXX
Prescribed by: DAFMAN11-502

**BY ORDER OF THE
SECRETARY OF THE AIR FORCE**

**DEPARTMENT OF THE AIR FORCE
MANUAL 11-502**



10 JANUARY 2025

Flying Operations

***GROUP(S) 1 AND 2 SMALL
UNMANNED AIRCRAFT SYSTEMS***

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available on the e-Publishing website at www.e-Publishing.af.mil for downloading or ordering.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: AF/A3S

Certified by: AF/A3S

Supersedes: AFMAN11-502, 29 July 2019

Pages: 47

This publication implements Department of the Air Force Policy Directive (DAFPD) 10-9, *Lead Command/Lead Agency Designation and Responsibilities for United States Air Force Weapon Systems* and Air Force Policy Directive (AFPD) 11-5, *Small Unmanned Aircraft Systems*. It provides guidance and procedures on sUAS operations throughout the Department of the Air Force (DAF). This publication applies to all DAF civilian employees, uniformed members of the Regular Air Force, the Air Force Reserve, the Air National Guard (ANG), the United States Space Force (USSF), Civil Air Patrol (CAP), when the services of CAP are used by any department or agency in any branch of the Federal Government, employing or testing Small Unmanned Aircraft Systems (sUAS) Groups 1 and 2, and those with a contractual obligation to abide by the terms of DAF publications to include contractors who are also governed by Air Force Instruction (AFI) 10-220, *Contractor's Flight and Ground Operations*, employing or testing Groups 1 and 2 UAS. DAFPD 11-4, *Aviation Service*, does not apply to sUAS operators. **Note:** Management of sUAS programs is addressed in Department of the Air Force Manual (DAFMAN) 11-501, *Small Unmanned Aircraft Systems Management*, for Groups 1-3 sUAS. This manual requires the collection and or maintenance of information protected by the Privacy Act of 1974 authorized by Title 10 United States Code, Section 8013, *Secretary of the Air Force*, IAW 5USC § 552a. Ensure all records generated as a result of processes prescribed in this publication adhere to AFI 33-322, *Records Management and Information Governance Program*, and are disposed in accordance with (IAW) the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the DAF Form 847, *Recommendation for Change of Publication*; route DAF Forms 847 from the field through the appropriate functional chain of command. All supplements must be routed to the OPR of this publication for coordination prior to

certification and approval. Send supplements to AF.A3S.Workflow@us.af.mil. The authorities to waive wing/Space Force equivalent/unit wing, unit, delta, or garrison level requirements in this publication are identified with a tier (“T-0, T-1, T-2, T-3”) number following the compliance statement. See DAFMAN 90-161, *Publishing Processes and Procedures*, for a description of the authorities associated with the tier numbers. Submit requests for waivers through the chain of command to the appropriate tier waiver approval authority, or alternately, to the publication OPR at AF.A3S.Workflow@us.af.mil for non-tiered compliance items. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force (AF). Compliance with the attachments in this publication are mandatory.

SUMMARY OF CHANGES

This is a new manual and must be completely reviewed. It contains Small Unmanned Aircraft Systems (sUAS) requirements and processes for Groups 1-2 sUAS that were previously contained in Air Force Manual (AFMAN) 11-502, *Small Unmanned Aircraft Systems*.

Chapter 1—OVERVIEW	5
1.1. Overview.....	5
1.2. Key Definitions.....	5
1.3. Waiver Authority.....	5
1.4. Terminology.....	6
Chapter 2—ROLES AND RESPONSIBILITIES	7
2.1. Air Force Deputy Chief of Staff, Operations (AF/A3).....	7
2.2. Air Force Special Warfare Directorate, Deputy Chief of Staff for Operations (AF/A3S).....	7
2.3. Lead Command(s).....	7
2.4. MAJCOM. Note:	8
2.5. DAF Installation Commander(s) or Commander(s) with overall authority for flight operations (or delegated representative) will:	8
2.6. Squadron Commander.	9
2.7. Squadron/unit sUAS Program Manager (sUAS PM) will:	9
2.8. Squadron/Unit Small Unmanned Aircraft System Instructor (sUAS-I) will:	10
2.9. Lead Small Unmanned Aircraft System Operator (sUAS-O) will:	10
2.10. Individual Small Unmanned Aircraft System Operators (sUAS-Os) will:	11
Chapter 3—TRAINING	12
3.1. General.....	12
3.2. Initial Training (IT).....	12

3.3.	Formal Training Unit (FTU).....	13
3.4.	Vendor Provided Training.	13
3.5.	Group 1 and 2 sUAS Unit Provided Training.....	13
3.6.	Mission Training (MT).	14
3.7.	Differences Training (DT).	15
3.8.	Continuation Training (CT).	15
3.9.	Stores or Weapons Release.....	15
3.10.	Family of Systems.	16
3.11.	Air Deliverable sUAS.....	16
3.12.	Documentation.....	16
Chapter 4—	STANDARDIZATION/EVALUATION	18
4.1.	sUAS-O Standardization/Evaluation Program.	18
4.2.	Objectives.	18
4.3.	Group(s) 1 and 2 Standardization/Evaluation Program.	18
4.4.	Multiple Certification.	19
4.5.	Documentation.....	19
4.6.	Initial Cadre or Assignment to sUAS-I.....	20
4.7.	sUAS Instructor (sUAS-I) Requirements.	21
4.8.	Commander-Directed Downgrade.	22
Chapter 5—	OPERATIONS	23
5.1.	General.....	23
5.2.	Waivers.	23
Attachment 1—	GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION	24
Attachment 2—	DOD UAS CATEGORIES	29
Attachment 3—	SAMPLE DAF FORM 797	30
Attachment 4—	SAMPLE AF FORM 1381 USAF CERTIFICATION OF AIR CREW TRAINING	32
Attachment 5—	SAMPLE AFSOC FORM 13 GROUP 1 AND 2 SUAS EVALUATION FORM	33
Attachment 6—	SAMPLE UNIT SUAS-I UPGRADE TRAINING PROGRAM	34
Attachment 7—	SAMPLE RM WORKSHEET AND FLIGHT AUTHORIZATION	36
Attachment 8—	NANO AND MICRO SUAS REQUIREMENTS	38

Attachment 9—GROUP(S) 1 AND 2 CONTINUATION TRAINING	39
Attachment 10—SUAS UNIT TRAINING TOPICS CHECKLIST	41
Attachment 11—CIVIL AIR PATROL (CAP) REQUIREMENTS	44

Chapter 1

OVERVIEW

1.1. Overview. See [Attachment 2](#), Department of Defense (DoD) UAS Categories. sUAS owned or operated by (or on behalf of) DoD and DAF normally are "public aircraft." See AFI 10-220, Section 9.2. Title 14, Code of Federal Regulations, [Part 107](#), *Small Unmanned Aircraft Systems*, only applies to civil UAS and not "public aircraft." The DoD Office of the General Counsel Memorandum, *Applicability of 14 C.F.R. Part 107 to the Department of Defense*, dated 16 May 2019, has determined that regulations set forth in 14 CFR Part 107 do not apply to sUAS operations carried out by the DoD, including sUAS operations conducted by the Military Departments and Defense Agencies. Per Department of the Air Force Instructions (DAFI) 10-2701, *Organization and Function of the Civil Air Patrol*, dated 17 June 2021, Civil Air Patrol-United States Air Force (CAP-USAF) is the USAF program office for the Cooperative Agreement and the Civil Air Patrol (CAP). CAP-USAF institutes programmatic requirements for CAP and will establish equivalent levels of command oversight for sUAS activities. (See [Attachment 11](#) for CAP requirements.) To provide guidance for the use of DoD UAS in the U.S. and to ensure that such use is IAW U.S. laws and DoD Policy, the Secretary of Defense issued a policy memorandum, *Guidance for the Use of Unmanned Aircraft Systems in U.S. National Airspace*, dated 31 Oct 2023. The policy memorandum requires, consistent with Department of Defense Instruction (DoDI) 5400.11, *DoD Privacy and Civil Liberties Programs*, dated 29 January 2019, that Military Department implementation guidance address the compliance with laws, regulations, and other guidance that protects privacy and civil liberties to ensure the appropriate collection, retention, and dissemination of personal information. Refer to AFI 14-404, *Intelligence Oversight*, paragraph 4.3.1, for additional guidance on privacy and civil liberties protections. Finally, the SecDef guidance designates approval authorities and delegates approval authority for certain UAS operations in the national airspace system. See Attachment 9 in DAFMAN 11-501 to reference the Authorities Matrix. **Note:** sUAS are classified into two basic categories: Commercial-Off-The-Shelf (COTS) and Government-Off-The-Shelf (GOTS) or commonly also referred to as non-COTS. GOTS, Mission Design Series (MDS) or non-MDS sUAS not available to the public, and COTS purchased with government funds are all referred to as sUAS.

1.2. Key Definitions.

- 1.2.1. "Must" or "Will" indicates a mandatory requirement.
- 1.2.2. "Should" indicates a recommended procedure that is required, if practical.
- 1.2.3. "May" indicates an acceptable or suggested means of accomplishment.

1.3. Waiver Authority. When complying with official policy, guidance, and/or procedures, a unit may request a waiver under the guidance listed in Department of the Air Force (DAFI) 90-160, *Publications and Forms Management*. For waivers where authority is not already identified in this publication, the OPR is the approval authority. Route those requests through MAJCOM Director of Operations (MAJCOM/A3s) (any reference to MAJCOM/A3 in this publication also refers to equivalent offices if MAJCOM operations/training is not named A3 for consideration). Use the DAF Form 679, *Department of the Air Force Publication Compliance Item Waiver Request/Approval*, for waiver requests.

1.4. Terminology. All references to United States Air Force (USAF) terminology, units, grades, and positions will also apply to the equivalent in the USSF, as appropriate.

Chapter 2

ROLES AND RESPONSIBILITIES

2.1. Air Force Deputy Chief of Staff, Operations (AF/A3). Delegates OPR for this manual to the Deputy Chief of Staff, Operations, Director of Special Warfare (AF/A3S).

2.2. Air Force Special Warfare Directorate, Deputy Chief of Staff for Operations (AF/A3S).

2.2.1. Reviews and maintains this manual.

2.2.2. Reviews major command (MAJCOM) supplements to ensure MAJCOMs adhere to the basic guidance in this manual.

2.2.3. Coordinates with Headquarters Air Force (HAF) organizations and MAJCOM Stan/Eval functions to ensure guidance in separate publications conforms to, and complies with, basic AF guidance contained in this manual.

2.3. Lead Command(s). Air Force Special Operations Command (AFSOC) is designated the Lead Command for sUAS. See DAFPD 10-9. Lead Commands will:

2.3.1. Work with MAJCOM/Field Commands (FLDCOMs) to develop guidance for the management and execution of operations and training.

2.3.2. Convene conferences and working groups, as necessary, to review policies and procedures.

2.3.3. Conduct formal course reviews. Annually review formal training programs and syllabi for currency, applicability, compliance, and effectiveness.

2.3.4. Authorize the use of training devices or simulators to meet currency requirements.

2.3.5. Review and approve formal training unit (FTU) or vendor syllabi, unit Initial Training (IT), and Differences Training (DT). Air Force Special Operations Command Unmanned Systems Branch (AFSOC/A3OU) may delegate approval authority for IT syllabi to MAJCOMs.

2.3.6. Develop and manage, in coordination with MAJCOMs, DAF Standard sUAS Task Identifiers.

2.3.7. Support staff assistance visit and training assessments when requested by a MAJCOM.

2.3.8. Process all unit Federal Aviation Administration (FAA) Certificate of Waiver or Authorization (COA)/AFSOC issued Airspace Access Authorization (AAA) applications.

2.3.9. Review and maintain appointment letter for Special Mission Units and Research Development Test and Evaluation (RDT&E) unit designations.

2.3.10. Establish sUAS-Instructor (sUAS-I) guidance.

2.3.11. Manage the Small Unmanned Aircraft Systems Manager (SUASMAN) web application.

2.3.12. Manage the Basic Unmanned Aircraft Systems Qualification (BUQ) Course located in SUASMAN.

2.3.13. Maintain a current list of approved Family of Systems in SUASMAN (<https://suasman.josce.mil>).

2.4. MAJCOM. Note: Direct Reporting Units, Field Operating Agencies, and ANG are considered MAJCOMs for the purposes of this manual. MAJCOMs will:

2.4.1. Develop MAJCOM supplements that are not less restrictive than this manual, if required.

2.4.2. Develop theater indoctrination training and ensure Small Unmanned Aircraft System Operators (sUAS-Os) are trained for specific theater flight operations as assigned IAW DAFMAN 11-501. At a minimum this training will include:

2.4.2.1. Theater unique requirements and procedures (i.e., Joint Mission Qualification (JMQ) A/B).

2.4.2.2. Local area procedures and hazards.

2.4.2.3. Host nation law, international agreements, and local area procedures and hazards.

2.4.3. Ensure unit equipment accountability, reporting, and training programs are maintained IAW this manual.

2.4.4. Annually review equipment inventory inspections from all units, to ensure all systems are accounted for in Defense Property Accountability System.

2.4.5. Post unclassified Read File items to the SUASMAN web application.

2.4.6. Conduct staff assistance visits to subordinate units when requested by the unit commander or designated representative.

2.4.7. Review all unit IT courseware and forward to Lead Command for approval before it can be used for training. See sUAS Unit Training Topics Checklist in **Attachment 10**.

2.4.8. Ensure Unit Standardization & Evaluation (Stan/Eval) policies, guidance and supplements are adequate and comply with the guidance and intent of this manual.

2.4.9. Review unit airspace requests and forward to Lead Command for approval.

2.4.10. Designate sUAS platforms to be considered a Family of Systems (see **paragraph 3.10**) and forward to Lead Command for approval.

2.4.11. Send all vendor-provided training requests to AFSOC.A3OU.WF@us.af.mil for approval.

2.4.12. Oversee formal school written operational instruction (OI) that outlines all instructor, student, and course requirements, if required.

2.4.13. Ensure that DoD and DAF intelligence oversight policies, to include AFI 14-404, are followed, where applicable.

2.5. DAF Installation Commander(s) or Commander(s) with overall authority for flight operations (or delegated representative) will:

2.5.1. Ensure compliance with this manual by subordinate units. Provide staff support and assist those units in managing the training program.

2.5.2. Determine the need to designate an installation level sUAS Program Manager (PM) or sUAS-I, if required to provide assistance to Squadron/unit PM(s). The two functions may be performed by the same individual.

2.5.3. Approve operating procedures for operations on and off DAF installation(s) IAW DAFMAN 11-501.

2.6. Squadron Commander. Squadron commanders are responsible for the oversight and execution of operations. The Squadron Commander will:

2.6.1. Establish and approve unit program requirements.

2.6.2. Designate, in writing, at the appropriate level a sUAS PM.

2.6.3. Develop and maintain sUAS Flight Safety Program IAW DAFI 91-202, *The Department of the Air Force Mishap Prevention Program*.

2.6.4. Designate, in writing, all unit sUAS-O/I(s).

2.6.5. Designate, in writing, a flight approval authority to authorize flights.

2.6.6. Ensure unit currency guidance focuses on operator proficiency to meet unit Mission essential task list (METL)/mission requirements.

2.6.7. Establish a unit Flight Crew Information File (FCIF) program.

2.6.8. Approve candidate(s) for sUAS FTU training.

2.6.9. Implement corrective actions for unit(s) training and equipment deficiencies.

2.6.10. Designate, in writing, an inventory manager.

2.6.11. Ensure annual inspection of unit(s) inventory is conducted and recorded in Defense Property Accountability System. Compiled report(s) will be given to MAJCOM sUAS PM.

2.6.12. Ensure all vendor training is requested through MAJCOM for Lead Command approval.

2.6.13. Approve use of sUAS as applicable IAW DAFMAN 11-501.

2.7. Squadron/unit sUAS Program Manager (sUAS PM) will:

2.7.1. Develop and incorporate Lead Command approved unit IT, and DT.

2.7.2. Develop and incorporate unit-specific sUAS mission training (MT), continuation training (CT), and sUAS-I upgrade training programs IAW commander's guidance. List all training tasks for certification on DAF Form 797, *Job Qualification Standard Continuation/Command JQS* (or equivalent). See [Attachment 6](#) for a sample of a sUAS-I Upgrade Training Program.

2.7.3. Submit unit-developed training program(s) through unit chain of command to MAJCOM for review and approval. MAJCOMs may delegate review and approval authority to Wing or Operations Group Commander level.

2.7.4. Monitor and maintain unit FCIF library.

2.7.5. Ensure sUAS-O(s) and all required personnel have a SUASMAN account. Requests for SUASMAN access can be made at <https://suasman.josce.mil> or by email: AFSOC.A3OU.SUASMAN@us.af.mil.

2.7.6. Provide operator's manual(s) not posted in the SUASMAN library in electronic format to the SUASMAN helpdesk.

2.7.7. View course availability and coordination procedures for FTU training requests in SUASMAN.

2.7.8. Manage records of assigned or attached sUAS operator(s). Use SUASMAN to maintain sUAS-O records. Use of supplemental paper-based records is at the discretion of the unit commander.

2.7.9. Track each sUAS-O(s) training status, identify training shortfalls, and monitor unit read file currency.

2.7.10. Ensure spectrum management, scheduling, coordination for ranges, and airspace are being accomplished for all operation(s).

2.7.11. Conduct an annual records review.

2.7.12. Ensure in-processing for sUAS-O(s) includes a records review. In-processing will include completion of at least one local area familiarization flight under the supervision of a sUAS-I.

2.7.13. Report training and equipment deficiencies to the commander.

2.8. Squadron/Unit Small Unmanned Aircraft System Instructor (sUAS-I) will:

2.8.1. Instruct Lead Command-approved unit level IT, recurrency, MT, DT, and sUAS-I upgrade training.

2.8.2. Conduct and document biennial evaluations IAW [paragraph 4.3](#).

2.8.3. Be knowledgeable of the contents of this manual, unit(s) MT plans, unit OI, range and flying procedures, operating procedures, and operating manual(s).

2.8.4. Prior to each training mission, ensure: each trainee is current on read file requirements, has no medical issues that would hinder employment and control, and has accomplished all relevant task certification requirements. Refer to DAFMAN 11-501 and *Section U, USAF Medical Standards Directory*, for specific medical requirements IAW DAFMAN 48-123, *Medical Examinations and Standards*.

2.8.5. Maintain certification and currency requirements for the tasks instructing.

2.9. Lead Small Unmanned Aircraft System Operator (sUAS-O) will:

2.9.1. Be specifically identified by the Flight Authorization Approving Authority to be responsible for all aspects of the mission, regardless of crew position or rank.

2.9.2. Ensure the commander's Risk Management (RM) and Mishap Prevention Program is integrated into mission planning and flight operations. (T-2) See [Attachment 7](#) for an example RM worksheet and flight authorization.

2.9.3. Ensure reporting of sUAS mishap(s) to the unit safety representative.

2.9.4. Ensure each crewmember is briefed IAW DAFMAN 11-501.

2.9.5. Ensure approved statement of airworthiness, FAA COA or AFSOC AAA is within their possession for the operating location during all flight operations.

2.10. Individual Small Unmanned Aircraft System Operators (sUAS-Os) will:

2.10.1. Be cognizant of safety of flight during operations.

2.10.2. Review and understand Read File prior to conducting operations.

2.10.3. Fly only those sUAS for which they are certified. Do not conduct training events for which they are not certified or current unless under the supervision of a sUAS-I.

2.10.4. Complete requirements and maintain currency as required by this manual.

2.10.5. Not operate a sUAS unless it is in a condition for safe operation. An initial inspection and pre-flight of the system must be completed prior to each flight by sUAS-O to ensure it is in a condition for safe operation.

2.10.6. Conduct post-flight inspections of aircraft and flight support equipment.

2.10.7. Use SUASMAN to maintain sUAS-O records. Use of supplemental paper-based records is at the discretion of the unit commander.

2.10.8. Maintain current flight log in SUASMAN. sUAS-O(s) will log operator flight time (live/simulator) when performing specific crew position(s) only. Flight logs will be used to track flight hours for all sUAS.

2.10.9. Demonstrate basic see-and-avoid techniques for safe operations to assist Visual Observer(s).

2.10.10. Act as Lead sUAS-O as directed.

Chapter 3

TRAINING

3.1. General. The operator training program ensures all operators obtain and maintain the certification and proficiency needed to support their unit's mission. The objective of the operator training program is to develop and maintain a sufficient state of mission readiness for units that employ sUAS.

3.1.1. Acceptance of Previous Certification and other Services sUAS Training. Commander(s) may accept an operator's previous training (i.e., IT, DT, or specialized training) and certifications attained using other Services or contractors/industry partners training on the same system as long as they maintained currency IAW Service guidance. Unit sUAS PM will review and validate other documented service training. Document acceptance of certification on the AF Form 1381, *USAF Certification of Air Crew Training*, and upload in SUASMAN. **(T-3)**

3.1.2. Removal from Training. An FTU commander may remove an individual from training for failure to progress. A Squadron Commander may remove an individual from vendor training for any cause. The justification for the removal will be documented on a Memorandum for Record (MFR) and becomes a permanent part of the individual's training record. **(T-3)**

3.1.3. Reentry into Training. Commander(s) may approve, and will document on an MFR, a decertified individual's reentry into training. **(T-3)** This documentation becomes a permanent part of the individual's training record.

3.1.4. sUAS PM or sUAS-I cannot conduct self-evaluations/certifications of any kind.

3.1.5. At a minimum, training will meet Group specific training requirements to include appropriate BUQ Level, JMQ and Joint Unmanned Minimum Training Standards (JUMTS) tasks, IAW Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3255.01, *Joint UAS Minimum Training Standards*, airspace training and vehicle specific systems and operations training. **(T-0)** Airspace classification determines the training level required.

3.2. Initial Training (IT). IT focuses on basic knowledge and skills required to operate a specific sUAS. The training includes operation of all baseline mission equipment, but does not emphasize tactical employment, nor does it address the operation of specialized equipment, software, or sensors uniquely employed by specific units. IT certifies an individual in basic operator duties of an assigned sUAS without regard to a unit-specific mission and is a prerequisite prior to attending unit MT. AFSOC/A3OU is the approval authority for IT curriculum. The preferred method of IT is to attend a Lead Command approved FTU course, if available to your unit. The alternative methods are Lead Command approved vendor or unit IT courses.

3.2.1. Training concludes by successfully completing a culmination/evaluation flight, a unit/vendor developed written examination covering basic overall system knowledge, and a written or verbal exam covering the execution of all emergency procedures (EP). The minimum passing score of the written general knowledge test is 85% and the written or verbal EP test is 100%. Upon completion of IT, a graduation certificate will be awarded. **(T-2)** The certification will be recorded on AF Form 1381 by the Squadron/Unit sUAS PM and uploaded into SUASMAN. **(T-2)**

3.2.2. While conducting live training flights there must be an adequate Student: Instructor (S:I) ratio minimum to meet safety of flight; an appropriate level of instructor control/oversight is 2:1. **(T-2)** (i.e., One instructor for each two crew members actively flying a UAS.)

3.2.3. A sUAS-I shall be physically located with the student during a live flight and positioned to assume direct control of the UAS, if required. **(T-2)**

3.2.4. An IT course must not contain a training break of greater than 30 days. A break beyond 30 days requires starting the IT course from the beginning.

3.2.5. Refer to [paragraph 3.12](#) for documentation requirements.

3.3. Formal Training Unit (FTU). FTU Training is facilitated and performed by an organization whose primary mission and responsibility is to train service members and other applicable personnel in the operations of flight for a specified Group 1-2 sUAS.

3.3.1. FTU(s) are designated/approved by MAJCOMs.

3.3.2. Instructors assigned to a FTU will either be a graduate from a DoD Methods of Instruction Course or an AF Basic Instructor Course. **(T-2)**

3.3.3. Designated FTU's will have a written OI that outlines all instructor, student, and course requirements. **(T-2)**

3.3.4. Registration and course options can be provided on SUASMAN by coordinating with the SUASMAN PM via the helpdesk.

3.4. Vendor Provided Training. Vendor provided training is authorized if the vendor's or vendor approved subsidiary company's curriculum has been approved by AFSOC/A3OU. **Note:** Approved vendor training approval letters are located in SUASMAN under the specific vendor links. MAJCOMs will email vendor training request(s) to AFSOC/A3OU workflow (AFSOC.A3OU.WF@us.af.mil) and include the vendors training point of contact in the request. **(T-1)**

3.4.1. Currently approved vendor training approval letters can be viewed in the SUASMAN library.

3.4.2. Vendor training approval requests from the Unit sUAS PM or Commander to MAJCOM, must contain the five Ws and include the current vendor's primary training point of contact information. This information is required in the MAJCOM request to AFSOC/A3OU, so they can contact the vendor directly to request all required current training documentation to begin the review and approval process.

3.5. Group 1 and 2 sUAS Unit Provided Training. Unit IT is training completed by an organization or unit to certify sUAS-O(s) for an indicated platform. Unit IT is typically conducted when the platform is not provided at an FTU, the owning manufacturer/vendor does not facilitate IT, or when these methods are not feasible, accessible, or available. If previously mentioned options are not available, units will coordinate with MAJCOM and Lead Command to develop unit IT curriculum. Unit facilitated IT is only authorized in the event the organization has certified sUAS-Is on that specific platform, an established MT program, and has received an IT courseware approval letter from the Lead Command to conduct the IT on that specific platform. Courseware must be coordinated and reviewed through MAJCOM prior to forwarding to AFSOC/A3OU for

approval. (T-2) For approval, MAJCOMs email unit IT request to AFSOC/A3OU workflow (AFSOC.A3OU.WF@us.af.mil) containing the unit PM point of contact information.

3.5.1. A minimum of two personnel, who are intended to be Unit designated sUAS-Is on the sUAS being certified on, must attend an approved FTU, vendor, or established unit IT course on the unit specific platform prior to developing an IT curriculum supporting a unit IT course. If unavailable, units will coordinate with MAJCOM and Lead Command to develop initial sUAS-I plan. (T-3)

3.5.2. To obtain MAJCOM and Lead Command approval, the unit IT program must incorporate system-specific operational training developed by the vendor, or unit and require the completion of the AFSOC/A3OU developed BUQ course, located in SUASMAN, prior to entering the IT course. (T-3)

3.5.3. IT training topics are included in the checklist provided in [Attachment 10](#) and Department of the Air Force Handbook (DAFH) 36-2675, *Information for Designers of Instructional Systems*, may also be referenced to provide curriculum development assistance.

3.5.4. Some sUAS platforms have specific templates, located in SUASMAN, that must be utilized to develop unit IT courseware.

3.5.5. Refer to [paragraph 3.12](#) for documentation requirements.

3.5.6. Unit(s) will utilize Lead Command approved courseware/syllabi. (T-2)

3.5.7. Unit(s) may enhance training/recertification programs to meet unit requirements and individual sUAS-O needs.

3.5.8. Unit(s) with approved programs may conduct unit IT for other units establishing a new program with MAJCOM and unit commander's approval.

3.5.9. Nano and Micro Training Requirements. A Nano is a sUAS with a maximum gross takeoff weight up to and including 0.55 pounds (8 ounces). A Micro is a sUAS with a maximum gross takeoff weight 0.56 pounds (9 ounces) up to 4 pounds. See [Attachment 8](#).

3.5.10. Special Mission IT Certifications. Unit Commander, approved by Lead Command IAW [paragraph 2.3.9](#), may select personnel/sUAS-O(s) to build, validate, and determine feasibility of custom-built utilization equipment. Special mission events are not core mission events and are not required to complete IT. sUAS-O(s) will be certified and maintain currency in an operational use platform. (T-3) **Note:** Once a system is considered operational it no longer falls under this paragraphs guidance.

3.6. Mission Training (MT). MT is conducted by the unit and certifies or re-certifies a sUAS-O in duties required to perform sUAS mission's specific to their unit. MT is required to certify Group 1 - 2 sUAS-O(s) to employ sUAS in support of the unit's METL/Mission requirements and is accomplished after IT. MT emphasizes tactical employment, and addresses the operation of specialized equipment, software, or sensors uniquely employed by specific units. Upon completion of MT training events the sUAS-O may be mission certified by the unit commander and may operate a system in support of the unit mission without supervision. **Exception:** MT does not apply to AFMC RDT&E units or United States Air Force Academy RDT&E, Air Force Institute of Technology, Reserve Officer Training Corps, or Officer Training School.

3.6.1. Unit MT programs should be developed incorporating unit METL/requirements, installation, or area of operation (AO) airspace rules or procedures and providing local orientation to new sUAS-O(s).

3.6.2. Refer to [paragraph 3.12](#) for documentation requirements.

3.6.3. MT is not normally conducted on operational missions. With Unit Commander approval, training requirements may be completed during operational missions. Comply with any restrictions in applicable operations order.

3.6.4. If a sUAS-O is certified in multiple platforms, the MT flight tasks should be tailored to focus on how each platform differs for each mission and have the sUAS-O demonstrate their capability to execute each of those tasks. If a sUAS-O has completed MT on a previous platform and the execution of those tasks remain the same, they do not need to repeat MT tasks on the newly certified platform. The initial training date of the new platform will be utilized as the MT completion date of common MT tasks and documented on AF Form 1381. **Note:** If any tasks differ, then MT must be accomplished for the new platform separately.

3.6.5. Special Mission Certifications. The commander may select sUAS-O(s) certified in the unit's mission to maintain additional special certifications. Special mission events are not core mission events and are not required to complete MT.

3.6.6. Commander(s) will review CJCSI 3255.01, Enclosure B, to determine if additional JMQ training is warranted (i.e., JMQ-A, JMQ-B or JMQ-C and JUMTS). **(T-0)** If additional training is necessary, the unit sUAS PM will develop a training program to satisfy the CJCSI 3255.01 requirements. **(T-0)** sUAS-O(s) must complete the required appropriate JMQ levels in order to complete MT. **(T-0)**

3.7. Differences Training (DT). DT is the training required for sUAS-Os who have been certified on a particular model/series aircraft and a newer variation of the aircraft becomes available and is required to meet operational requirements. DT will be required when Lead Command finds additional training is necessary before a sUAS-O serves in the same capacity on a particular variation of that aircraft. DT may be conducted at the unit level with courseware approved by AFSOC/A3OU. **(T-3)** **Note:** RDT&E units are not required to conduct DT when systems/payloads under test are modified without change to vehicle operations or flying characteristics.

3.7.1. DT will be taught by a sUAS-I or vendor that is certified and current on the appropriate platform. **(T-3)** sUAS-O(s) enrolled in DT must have first completed IT for the basic/unmodified system. **(T-3)**

3.7.2. All tasks will be annotated on DAF Form 797 (or equivalent) and completion of DT will be documented on AF Form 1381 by the sUAS PM or sUAS-I. **(T-2)**

3.8. Continuation Training (CT). Provides unit sUAS-O(s) with the volume, frequency, and mix of training necessary to maintain operator proficiency in unit specific sUAS mission tasks. See [Attachment 9](#) for Group(s) 1 and 2 minimum CT requirements.

3.9. Stores or Weapons Release. sUAS-O(s) must complete a Lead Command approved IT course, unit MT, and any additional MAJCOM Standardization/Evaluation (Stan/Eval) required training prior to executing missions that release stores, payloads, or weapons. **(T-1)** The sUAS-O Stan/Eval program will be IAW DAFMAN 11-503 Volume 2, *Group 3 Small Unmanned Aircraft*

Systems Standardization and Evaluation Program. Exception: AFMC RDT&E units may release stores, payloads, or weapons without an AF Form 8, *Certificate of Aircrew Qualification*, if completed within the confines of an approved Test Plan.

3.9.1. Training should include normal arming, safing, release and separation, unintentional ground, and inflight release, arming and release malfunctions, jettison, hung/misfired store recovery and landing, environmental considerations, range safety, aircraft instrumentation, and range clearance and test control procedures. If energetic release systems or stores (explosives, stored energy springs, etc.) are used, training should also include special handling requirements unique to positively determining a disarmed state in order to safely launch and recover the aircraft with the energized system or store aboard. Air-to-surface training is required for all sUAS-Os carrying or releasing any live explosives or stores kinetically impacting any target outside of restricted or warning airspace.

3.9.2. For operations within restricted or warning airspace, weapons delivery or release of stores will be IAW AFMAN 13-212, Volume 1, *Range Operations and Planning*; MAJCOM Supplements; and local range rules.

3.9.3. Operations outside of restricted or warning airspace requires a Statement of Airworthiness supporting such operations.

3.9.4. RDT&E air-air/air-to-surface testing will be conducted IAW test and safety review board guidance. **(T-2)**

3.9.5. All weapons, weapon systems, and cyber capabilities must receive a legal review by the Operations and International Law Directorate, (AF/JAO). Upon request, AF/JAO will conduct a legal review to ensure the employment of the weapon, weapon system, or cyber capability is lawful under the law of war, domestic law, and international law IAW AFI 51-401, *The Law of War*.

3.10. Family of Systems. Family of Systems refers to the ability of a sUAS-O to manage a variety of systems that provides similar capabilities to achieve the same or complementary effects directly via common software/common controller (i.e., ATAK, AV and particular DJI products). Credit for a currency flight may be shared between other models and series whose initial certification requirements can be met through DT. Refer to **Aircraft Model/Series** in *Terms* section.

3.10.1. All platforms associated within a Family of Systems in which a sUAS-O is certified, will appear on flight log when logging a flight within SUASMAN. sUAS-O(s) will receive credit for currency on those platforms shown available but will only receive credited flight hours on the primary platform flown. **(T-3)**

3.10.2. Lead Command will maintain a current list of approved Family of Systems in SUASMAN. **(T-2)**

3.11. Air Deliverable sUAS. Air launched sUAS from other platforms will follow host MDS guidance regarding operator training, currency, and flight/simulation requirements. Aircrew members certified or qualified to perform air launched sUAS operations will not execute ground launched sUAS operations without completion of IT as defined in [paragraph 3.2](#).

3.12. Documentation. The DAF Form 797 (or equivalent) will be utilized in conjunction with the AF Form 1381 for training and certification by all sUAS-O(s). **(T-3)** The DAF Form 797 (or equivalent) will be the source document used by sUAS-I(s) to annotate the training tasks

completed during IT, MT, DT, or sUAS-I upgrade certification. (T-3) AF Form 1381 will be utilized by sUAS-I(s) to record all completed certifications and evaluations. (T-3) See [Attachment 3](#) and [Attachment 4](#) for examples of filling out the forms. DAF Form 797 and AF Form 1381 can be downloaded from the training section of the SUASMAN web application. Flight activity will be documented electronically in SUASMAN by sUAS-O(s). (T-3)

3.12.1. The Group 1 and 2 sUAS Evaluation Form, See [Attachment 5](#) or MAJCOM equivalent, will be utilized to record the culmination/evaluation flight, verbal, and written examinations by recording a Satisfactory (SAT), Unsatisfactory (UNSAT), or N/A result for all applicable tasks.

3.12.2. Documentation and training records must be kept current and at a suitable level by the sUAS PM to support an assessment (i.e., inspection, audit, site assist visit, etc.). An area of assessment includes the currency status of all assigned and attached sUAS-O/I(s). (T-3)

Chapter 4

STANDARDIZATION/EVALUATION

4.1. sUAS-O Standardization/Evaluation Program. The sUAS-O Standardization/Evaluation (Stan/Eval) program is designed to ensure a high degree of effectiveness in accomplishing the mission of the sUAS force. This will be achieved by command supervision, employment of standard sUAS-O tasks, use of standard publications, and maintenance of a disciplined sUAS-O force by administration of frequent tests and flight evaluations. **(T-3)** The purpose of the sUAS-O Stan/Eval Program is to provide commanders a tool to validate mission readiness and evaluate the effectiveness of individual sUAS-O(s) to include certifications and capabilities.

4.2. Objectives. Specific program objectives are to:

- 4.2.1. Provide a system to assess and document individual sUAS-O proficiency and the capability to accomplish assigned tasks.
- 4.2.2. Develop and ensure standardization of operational procedures for employment.
- 4.2.3. Ensure compliance with appropriate operational, training, and administrative directives.
- 4.2.4. Evaluate and revise operational directives, procedures, and techniques as required.
- 4.2.5. Recognize trends and recommend/initiate changes to training programs and directives.
- 4.2.6. Validate the training program.
- 4.2.7. Ensure Stan/Eval policies, guidance and supplements are adequate and comply with the guidance and intent of this manual.

4.3. Group(s) 1 and 2 Standardization/Evaluation Program. sUAS-O(s) must accomplish a biennial (24 month) evaluation for each sUAS certified on after IT graduation date, recurrency flight (see [Attachment 9](#)), or date of last biennial evaluation. **(T-2)** A single system may be identified for platforms included in a Family of Systems to conduct the Biennial evaluation, unless directed otherwise by unit commanders or sUAS PM to demonstrate additional tasks that differ between the platforms. (i.e., launching or landing procedures, etc.). **Note:** Any sUAS that has a lethal, kinetic, or explosive design or capability requires sUAS-O qualification. Comply with the Stan/Eval procedures in [paragraph 3.9](#).

4.3.1. Biennial evaluation may be accomplished any time prior to the 24-month due date and includes the following ground and flight items:

4.3.1.1. Ground Requisites. sUAS-O(s) will accomplish a ground review with a sUAS-I. **(T-2)** Ground requisites include mission planning, preflight, site selection and setup, normal operating procedures, review of checklists, emergency procedures, operator maintenance, recovery, and post-mission requirements.

4.3.1.1.1. The sUAS-I administering the evaluation flight must include a general knowledge written assessment and a written or verbal EP assessment. **(T-2)**

4.3.1.1.2. Written assessments are closed book with a minimum passing score of 85% that equates to a "SAT." Less than an 85% score equates to an "UNSAT." Written assessments do not include emergency procedures.

4.3.1.1.3. Emergency Procedure test may be administered verbally or by written means with a 100% minimum passing score. If administered verbally, this verbal test is separate from other verbal knowledge assessments. Critical action items (boldfaced, boldfaced and underlined, asterisked, etc.) shall be committed to memory and executed without a checklist. All other emergency or abnormal procedures will be executed by reference to a checklist. **(T-1)** Less than an 100% score equates to an "UNSAT."

4.3.1.2. Flight Requisites. sUAS-O(s) will accomplish a live flight with a sUAS-I. **(T-2)**

4.3.1.2.1. Flight will be realistic and incorporate both basic and current tactics applicable to the unit mission. **(T-2)**

4.3.1.2.2. Flight will include a launch or recovery based on evaluated crew position. **(T-2)**

4.3.1.2.3. Flight will include a response to emergency procedure(s) based on the systems capabilities (simulated or during flight). **(T-2)**

4.3.2. sUAS-O will receive a biennial evaluation on certified platforms by a sUAS-I who is serving as the evaluator. **(T-2)**

4.3.3. sUAS-O(s) that fail to receive a Biennial evaluation within the given 24 months on that specific platform, cannot log a flight or fly without sUAS-I supervision until the biennial evaluation is completed.

4.4. Multiple Certification. sUAS-O(s) may be required to maintain certification in two or more distinctly different sUAS. sUAS-O(s) will receive a biennial evaluation in each sUAS in which they maintain certification. **(T-3)** If certification is lost for a specific sUAS, certifications for other sUAS are not affected.

4.5. Documentation. Results of the Biennial evaluation, administered by a sUAS-I, will be documented on AFSOC Form 13, *Group 1 and 2 sUAS Evaluation Form*, or MAJCOM equivalent and an AF Form 1381. Documents will be filed in individual's training record located in SUASMAN. **(T-2)** See [Attachment 4](#) and [Attachment 5](#).

4.5.1. AFSOC Form 13 or MAJCOM equivalent. sUAS-Is will use the AFSOC Form 13 or MAJCOM equivalent to conduct and record IT, MT, DT, and sUAS-I upgrade training evaluation results. **(T-2)**

4.5.1.1. All graded areas on the Evaluation Form will be marked by the sUAS-I with a "SAT," "UNSAT," or "N/A" entry in the corresponding Grade column. An "UNSAT" entry in any graded area that is marked with an asterisk (*) automatically constitutes an overall evaluation grade of "UNSAT." **(T-2)** **Note:** Areas highlighted in red on the AFSOC Form 13 require an entry for all types of evaluations. Areas not highlighted in red are marked with a "N/A" entry unless they apply during the evaluation.

4.5.1.2. To receive a "SAT" in any graded area outside of written or verbal exams the sUAS-O must demonstrate either physically or verbally an overall understanding of the graded task to execute the sUAS operation safely. See [paragraph 4.3.1.1.2](#) and [paragraph 4.3.1.1.3](#) for written or verbal requirements to receive a grade of "SAT." **(T-2)**

4.5.1.3. Any graded area marked with an entry of “UNSAT” will constitute an explanation and recommended or directed training, if required, to be recorded in the comments section. **(T-2)**

4.5.1.4. An “N/A” entry will only be utilized for tasks that don’t apply to that specific examination. (i.e., Instructional Ability would not be evaluated during an IT or MT evaluation). **(T-2)**

4.5.1.5. An overall evaluation grade of “UNSAT” requires a clear and precise plan, recorded in the comments section, that explains how to help that sUAS-O achieve an overall “SAT” grade and provides the date and time the next evaluation will occur.

4.5.1.6. Review of the Group 1 and 2 sUAS Evaluation Form or MAJCOM equivalent will be conducted and signed by reviewer (Unit Commander, Designee, or sUAS PM) once examinee and sUAS-I have signed the document. **(T-2)**

4.5.1.7. Group 1 and 2 sUAS Evaluation Form or MAJCOM equivalent will be maintained by the squadron/unit sUAS PM and uploaded into individual's record in SUASMAN. **(T-2)**

4.5.2. AF Form 1381. AF Form 1381 will be utilized to officially record sUAS-I or sUAS-O biennial evaluation results at the completion of the evaluation. **(T-2)**

4.6. Initial Cadre or Assignment to sUAS-I. Initial cadre/sUAS-I(s): A sUAS-O who is appointed by unit commander as initial cadre/sUAS-I for a newly developed unit sUAS program, where none previously existed. In some instances, it will be necessary for units standing up a new sUAS program, mission design series or converting from one design series aircraft, equipment, and capability to another to form an initial cadre of personnel for whom certain training certification requirements may be waived.

4.6.1. MAJCOMs will ensure units have appointed individuals as initial cadre/sUAS-I (s) if any of the following conditions are met:

4.6.1.1. Unit acquires a new mission set requiring additional Mission Training (MT) certification. **(T-2)**

4.6.1.2. Unit acquires a new platform where no sUAS-I currently exists. **(T-2)**

4.6.2. Unit commander will designate initial cadre/sUAS-I(s) through an MFR and submit to the MAJCOM for approval. **(T-2)** The MFR will contain name, rank, existing UAS certifications (if any), associated flight hours, syllabus approval date, and document training and evaluation requirements associated with initial cadre/sUAS-I status for the new aircraft/program. **(T-2)** MAJCOMs may use this MFR to restrict authorized operations until the unit gains sufficient experience or training in the new mission set or platform. Upon receipt of a signed initial cadre/sUAS-I MFR, SUAS Program Managers will upload to the member's record in SUASMAN. Include the document in each member's training folder. **(T-3)**

4.6.3. A minimum of two sUAS-Is will be designated to develop the IT and MT programs and to initiate a sUAS-I upgrade program IAW the example in [Attachment 6](#). **(T-3)** Attempts should always be made to seek currently certified sUAS-Is on the same platform from within the MAJCOM or local other units to assist in the program establishment.

4.6.4. Initial cadre/sUAS-I training.

4.6.4.1. If an approved DoD, FTU, vendor, or unit IT certification courses are available, make every effort to send initial cadre members to one of those courses to receive their IT. Training will be accomplished IAW the agency's training syllabi.

4.6.4.2. If an approved DoD, FTU, vendor, or unit IT certification courses are not available or practical, initial cadre will gain certification IAW unit developed training programs utilizing unit developed courseware approved by AFSOC/A3OU.

4.6.5. Initial cadre/sUAS-I responsibilities.

4.6.5.1. Develop training materials for each specific sUAS IT and MT programs supporting certifications for all applicable crew positions. **(T-2)** As a minimum, these training materials will consist of both ground and flying training tasks. See [paragraph 3.2](#) and [paragraph 3.6](#) for further requirements.

4.6.5.2. Develop aircraft flight manuals and operating checklists, if required. **(T-3)** Vendor supplied manuals and checklists are sufficient and preferred, provided the manuals and checklists are printed in English and determined by the initial cadre to be accurate.

4.6.5.3. Develop aircraft specific standardization and evaluation tests (Master Question File/Standard Question Bank). **(T-3)** Cover both certification and mission specific emphasis areas.

4.6.5.4. Develop Syllabus of Instruction. **(T-3)** Syllabus of Instructions will be certified by AFSOC/A3OU prior to training non-initial cadre crewmembers.

4.7. sUAS Instructor (sUAS-I) Requirements. Commander's will document designation of sUAS-I(s) and aircraft certified to instruct. **(T-3)** The Commander's designation letter will be entered into the individual's training record located in SUASMAN. **(T-3)**

4.7.1. sUAS Instructor (sUAS-I). The sUAS-I trains students at a designated Formal Training Unit (FTU) unit, a Lead Command approved unit IT Course, or sUAS-O(s) IAW this manual and the appropriate training/operator manual. The sUAS-I must be certified and current in the system to be operated. Commanders must select the best qualified individuals to perform sUAS-I duties based on the following criteria: **(T-3)**

4.7.1.1. Unit PM or current sUAS-I(s) must recommend additional sUAS-I candidates to the unit commander. **(T-3)**

4.7.1.2. Meet all requirements outlined in [paragraph 2.8](#).

4.7.1.3. Selection as instructor candidate will be based on demonstrated operator knowledge, experience, maturity, judgment, basic instruction or train the trainer experience, and the ability to effectively mitigate risk to the mission and ground force commander.

4.7.2. Successful completion of an sUAS-I evaluation IAW with the criteria in [Attachment 5](#). Evaluations are administered by a designated and current sUAS-I on the sUAS platform. Certification(s) must be maintained in the individual's training record located in SUASMAN.

4.7.2.1. sUAS-I(s) who receive an "UNSAT" grade in any area marked with an asterisk (i.e., Safety*, Judgement*, Flight Discipline*, Emergency Procedures*, Written exam/Closed book*, or Instructional ability*) automatically constitutes an overall evaluation grade of "UNSAT" and a suspension of sUAS-I duties. See [Attachment 5](#).

sUAS-I(s) who receive two unsatisfactory (UNSAT) graded areas in areas 6-14 will also receive an overall evaluation grade of UNSAT. **(T-3)** A sUAS-I who receives an UNSAT evaluation will be suspended from all sUAS duties. A suspended sUAS-I must be re-evaluated after completing training in the area(s) marked "UNSAT" and may be re-instated upon successful completion of a re-evaluation with a "SAT" result. **(T-3)**

4.7.2.2. sUAS-I(s) must be removed from sUAS-I duties if the re-evaluation results in a second failure. **(T-3)** The associated sUAS-I designation will be rescinded and annotated in the individual training record maintained in SUASMAN.

4.7.2.3. Subsequent retraining and recertification will be at the discretion of the unit commander. **(T-3)**

4.7.2.4. sUAS-I(s) is/are certified to perform unit sUAS-O and sUAS-I duties.

4.7.2.5. When a sUAS-I requires a 24-month biennial evaluation, they will receive a sUAS-I evaluation that includes both sUAS-O and sUAS-I responsibilities. All certifications/evaluations must be maintained in the individual's training record located in SUASMAN. **(T-3)**

4.7.2.6. PM and Commander will determine if sUAS-I maintains sUAS-O status if sUAS-I status is revoked. **(T-3)**

4.8. Commander-Directed Downgrade. Any commander in the sUAS-O chain of command may direct a decertified status. The commander (or designated representative) will direct a downgrade in a MFR to the unit's sUAS PM. **(T-3)** Upload MFR into the individual's SUASMAN account.

4.8.1. Unit sUAS PMs will make applicable changes to the individual's training record located in SUASMAN account. **(T-3)** A commander-directed downgrade will be annotated on AF Form 1381, uploaded in the individual's training record within SUASMAN. **(T-2)**

4.8.2. Use the decertification process in cases where there is a loss of commander's confidence in the sUAS-O(s) ability to safely operate the sUAS or equipment. Do not use as a substitution for, or in lieu of, administrative, or disciplinary actions.

4.8.3. Individual who is downgraded to a decertified status must re-accomplish IT. **(T-2)**

Chapter 5

OPERATIONS

5.1. General. This chapter provides broad guidance for sUAS operations. It is consolidated to help operators to identify and synthesize potentially applicable standards and procedures, and to understand application and waiver authority. General guidance cannot address every situation; therefore, MAJCOMs and wing commanders should provide additional guidance further supporting safe operations. In the absence of specific guidance, operators will seek clarification, use sound judgment, and apply a ground and aviation safety mindset.

5.2. Waivers. Waivers are generally granted for a specific training event such as an exercise and usually do not exceed 30 days of coverage. A waiver is not permitted for convenience and will not waive critical tasks IAW this DAFMAN or circumvent other requirements and publications. **(T-2)**
Exception: MAJCOM/A3s (or equivalent) have authority to waive individual operator requirements in this publication but may not approve blanket or group (two or more operators) waivers.

5.2.1. Waivers for Deployments/Extreme Weather Conditions. Unit Commander(s) should make every attempt to maintain currency requirements for sUAS-O/I(s) during extreme weather conditions or while deployed. Commander(s) may waive currency and evaluation requirements for sUAS-O/I(s) who were current when deployed or prior to extreme weather conditions. An MFR will be uploaded into the individual's training record on SUASMAN to show that the gap in currency flights was authorized. **(T-3)**

5.2.2. Once weather conditions permit or upon return from deployment a sUAS-O/I will have 60 days to complete overdue currency and evaluation requirements. **(T-3)**

ADRIAN L. SPAIN, Lt Gen, USAF
Deputy Chief of Staff, Operations

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

5 USC § 552a, *Records maintained on individuals* (Privacy Act of 1974)

10 USC § 9492, *Status as volunteer civilian auxiliary of the Air Force*

Title 14, Code of Federal Regulations, Part 89, *Remote Identification of Unmanned Aircraft*, 15 January 2021

Title 14, Code of Federal Regulations, Part 107, *Small Unmanned Aircraft Systems*, 16 May 2019

Secretary of Defense Memorandum, *Guidance for the Use of Unmanned Aircraft Systems in U.S. National Airspace*, 31 Oct 2023

Department of Defense Office of the General Counsel Memorandum, *Applicability of 14 C.F.R. Part 107 to the Department of Defense*, 16 May 2019

DoDI 5400.11, *DoD Privacy and Civil Liberties Programs*, 29 January 2019

CJCSI 3255.01, *Joint UAS Minimum Training Standards*, 7 July 2009

Joint Publication 3-30, *Joint Air Operations*, 25 July 2019

DAFPD 10-9, *Lead Command/Lead Agent Designation and Responsibilities for United States Air Force Weapon Systems, Non-Weapon Systems, and Activities.*, 25 May 2021

DAFPD 11-4, *Aviation Service*, 16 July 2024

AFPD 11-5, *Small Unmanned Aircraft Systems (sUAS)*, 7 June 2019

DAFI 10-2701, *Organization and Function of the Civil Air Patrol*, 17 June 2021

AFI 10-220, *Contractor's Flight and Ground Operations*, 7 February 2023

AFI 14-404, *Intelligence Oversight*, 3 September 2019

AFI 33-322, *Records Management and Information Governance Program*, 23 March 2020

AFI 51-401, *The Law of War*, 3 August 2018

DAFI 91-202, *The Department of the Air Force Mishap Prevention Program*, 20 March 2020

DAFMAN 11-501, *Small Unmanned Aircraft Systems Management*, 8 January 2025

DAFMAN 11-503 Volume 2, *Group 3 Small Unmanned Aircraft Systems Standardization and Evaluation Program*, To Be Published

AFMAN 13-212, Volume 1, *Range Planning and Operations*, 14 Mar 2023

DAFMAN 90-161, *Publishing Processes and Procedures*, 18 Oct 2023

DAFH 36-2675, *Information for Designers of Instructional Systems*, 15 April 2022

Adopted Forms

AF Form 8, *Certificate of Air Crew Qualification*

AF Form 1381, *USAF Certification of Air Crew Training*

AFSOC Form 13, *Group 1 and 2 sUAS Evaluation Form*

DAF Form 679, *Department of the Air Force Publication Compliance Item Waiver Request/Approval*

DAF Form 797, *Job Qualification Standard Continuation/Command JQS*

DAF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AAA—Airspace Access Authorization

AF—Air Force

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFMC—Air Force Materiel Command

AFPD—Air Force Policy Directive

AFSOC—Air Force Special Operations Command

ANG—Air National Guard

BUQ—Basic Unmanned Aircraft Systems Qualification

CJCSI—Chairman of the Joint Chiefs of Staff Instruction

COA—Certificate of Waiver or Authorization

COTS—Commercial off-the-shelf

CT—Continuation Training

DAF—Department of the Air Force

DAFH—Department of the Air Force Handbook

DAFI—Department of the Air Force Instruction

DAFMAN—Department of the Air Force Manual

DAFPD—Department of the Air Force Policy Directive

DoD—Department of Defense

DoDI—Department of Defense Instruction

DT—Differences Training

EP—Emergency Procedure

FAA—Federal Aviation Administration

FCIF—Flight Crew Information File

FLDCOM—Field Command

FTU—Formal Training Unit/Schoolhouse

GOTS—Government off-the-shelf or commonly referred to as a Non-COTS

HAF—Headquarters Air Force

IAW—In Accordance With

IT—Initial Training

JMQ—Joint Mission Qualification

JUMTS—Joint Unmanned Minimum Training Standards

MAJCOM—Major Command

MDS—Mission Design Series

METL—Mission Essential Task List

MFR—Memorandum for Record

MT—Mission Training

OI—Operational Instruction

OPR—Office of Primary Responsibility

PM—Program Manager

RDT&E—Research Development Test and Evaluation

RM—Risk Management

SAT—Satisfactory

STAN/EVAL—Standardization/Evaluation

sUAS—Small Unmanned Aircraft System

sUAS-I—Small Unmanned Aircraft System Instructor

sUAS-O—Small Unmanned Aircraft System Operator

SUASMAN—Small Unmanned Aircraft System Manager

UAS—Unmanned Aircraft System

UNSAT—Unsatisfactory

USAF—United States Air Force

USSF—United States Space Force

Office Symbols

AF/A3—Air Force Deputy Chief of Staff, Operations

AF/A3S—Air Force Special Warfare Directorate, Deputy Chief of Staff for Operations

AF/JAO—Operations and International Law Directorate, Office of the Judge Advocate General

AFSOC/A3O—Air Force Special Operations Command Operations Division

AFSOC/A3OU—Air Force Special Operations Command, Operations Unmanned Systems

MAJCOM/A3—Major Command Director of Operations

Terms

Aircraft Model—Aircraft model refers to a specific design designation. (i.e., RQ-20 Puma, RQ-11 Raven, Instant Eye, Black Hornet or DJI Phantom).

Aircraft Series—Aircraft series refers to distinct versions of a particular aircraft model. (i.e., RQ-20A or B, RQ-11B, Instant Eye Gen 3-5, Black Hornet (BH 3), or DJI Phantom 4 Pro).

Certification—A term used to convey status or level of achievement. Certification is achieved by demonstrating proficiency of an event/task to a certifying official while attending a FTU, vendor, or unit training program. Certifying officials are appointed in writing by the unit commander or equivalent. Certifying officials are instructors or evaluators.

Commercial off-the-shelf (COTS)—All UAS systems sold in substantial quantity in the marketplace and offered to the Government in the same form in which it is sold to non-government consumers.

Currency—A recurring event/task that must be repeated within specified timeframe. Failure to complete the event in allowed timeframe may require instructor supervision, additional training or recertification before unsupervised duty may resume.

Differences Training—Training required for sUAS-Os who have been certified on a particular model/series aircraft and a newer variation of the aircraft becomes available and is required to meet operational requirements.

Familiarization Training—Training conducted under the direct supervision of a sUAS-I for the purpose of allowing individuals to gain an understanding of sUAS operations and capabilities. Familiarization training does not result in sUAS-O certification.

Field—Organizational entity below the HAF, MAJCOM, or FLDCOM level. Examples include: FOA, DRU, NAF, wing, or delta/garrison, etc.

Field Command—A major subdivision of the USSF which is assigned a key part of the USSF mission. A field command is directly subordinate to the Space Staff Headquarters Air Force. All USSF field commands report to the CSO.

Government off-the-shelf (GOTS)—sUAS not available to the public.

Initial Training (IT)—Training conducted by a FTU, vendor, or unit that certifies an individual in basic operator duties of assigned sUAS without regards to a unit-specific mission or specialized equipment.

Lead sUAS-O—A single sUAS-O specifically identified as the Lead sUAS-O by the flight authorization approving authority. The Lead sUAS-O, regardless of rank, is responsible for all aspects of the mission, regardless of crew position.

Mission Training (MT)—Certifies an operator in those specific duties required to perform sUAS missions assigned to a specific unit.

Program Manager (PM)—The individual (normally an experienced sUAS-I) designated by the Unit Commander to oversee all aspects of training and equipment management.

Restricted Area—Restricted areas are Special Use Airspace identified by an area on the surface of the earth within which the flight of aircraft, while not wholly prohibited, is subject to restrictions. Restricted areas are depicted on aeronautical charts with an R followed by numbers, e.g., R5104.

Small Unmanned Aircraft Systems (sUAS)—A Group 1, 2, or 3 unmanned aircraft and its supporting ground control elements, that does not carry a human operator, can be operated autonomously or remotely, can be expendable or recoverable, and can carry a lethal or nonlethal payload.

Small Unmanned Aircraft System Instructor (sUAS-I)—The subject matter experts on the unit's sUAS operations. Instructors are appointed by the unit commander and the only ones authorized to provide sUAS-O flight and ground training.

Small Unmanned Aircraft System Manager (SUASMAN)—A single source web-enabled database for tracking sUAS-O certifications, flight logs, currency, training accomplishments and sUAS logistics management.

Small Unmanned Aircraft System Operator (sUAS-O)—is a certification received after completing IT in a specific sUAS.

Test Plan—A document detailing all aspects of the test to be executed. This includes test resources, configuration control, test methodology, procedures, technical objectives, data collection and analysis, success criteria, reporting requirements, and test unique hazards/mitigations.

Attachment 2

DOD UAS CATEGORIES

Figure A2.1. DoD UAS Categories (Ref: JP 3-30, Joint Air Operations, 25 Jul 2019).

Unmanned Aircraft Systems Categorization Chart				
UA Category	Maximum Gross Takeoff Weight (lbs)	Normal Operating Altitude (ft)	Speed (KIAS)	Representative UAS
Group 1	0-20	< 1200 AGL	100 kts	WASP III, TACMAV RQ-14A/B, Buster, Nighthawk, RQ-11B, FPASS, RQ16A, Pointer, Aqua/Terra Puma
Group 2	21-55	< 3500 AGL	< 250	ScanEagle, Silver Fox, Aerosonde
Group 3	< 1320	< 18,000 MSL	< 250	RQ-7B Shadow, RQ-15 Neptune, XPV-1 Tern, XPV-2 Mako
Group 4	> 1320		Any Airspeed	MQ-5B Hunter, MQ-8B Fire Scout, MQ-1C Gray Eagle, MQ-1A/B/C Predator
Group 5	> 1320	> 18,000 MSL	Any Airspeed	MQ-9 Reaper, RQ-4 Global Hawk, RQ-4N Triton

Attachment 3
SAMPLE DAF FORM 797

Figure A3.1. Sample DAF Form 797.

JOB QUALIFICATION STANDARD CONTINUATION/COMMAND JQS							
CRITICAL TASK	TASK NUMBER	TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	CERTIFICATION				
			START DATE	COMPLETION DATE	TRAINEE'S INITIALS	TRAINER'S INITIALS	CERTIFIER'S INITIALS (IF REQUIRED)
<input checked="" type="checkbox"/>	1.0	Complete BUQ Course on SUASMAN TR: CJCSI 3255.01					
<input checked="" type="checkbox"/>	1.1	Review manufactures computer based training (CBT) videos specific to sUAS TR: Operation/Owner Manual					
<input checked="" type="checkbox"/>	1.2	Complete equipment accountability and assembly video TR: Operation/Owner Manual					
<input checked="" type="checkbox"/>	1.3	Complete preflight checklist and operations video TR: Operation/Owner Manual					
<input checked="" type="checkbox"/>	1.4	Complete mission preparation and basic flight video TR: Operation/Owner Manual					
<input checked="" type="checkbox"/>	2.0	Complete emergency procedures and loss of link (LOL) settings video TR: Operation/Owner Manual					
<input checked="" type="checkbox"/>	3.0	Complete mission preparation tasks					
<input checked="" type="checkbox"/>	3.1	Perform site selection					
<input checked="" type="checkbox"/>	3.2	Review flight authorization, Certificate of Authorization and waiver (if applicable)					
<input checked="" type="checkbox"/>	4.0	Complete communication tasks					
<input checked="" type="checkbox"/>	4.1	Demonstrate verbal radio communication procedures					
<input checked="" type="checkbox"/>	4.2	Demonstrate frequency de-confliction					
TRAINEE NAME			CFETP/JQS NUMBER			PAGE NO.	

DAF FORM 797, 20230331

Prescribed by: DAFMAN 36-2689

PREVIOUS VERSIONS OF THIS FORM MAY BE USED

Figure A3.2. Sample DAF Form 797.

JOB QUALIFICATION STANDARD CONTINUATION/COMMAND JQS							
CRITICAL TASK	TASK NUMBER	TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	CERTIFICATION				
			START DATE	COMPLETION DATE	TRAINER'S INITIALS	TRAINER'S INITIALS	CERTIFIER'S INITIALS (IF REQUIRED)
<input checked="" type="checkbox"/>	5.0	Conduct Before flight tasks					
<input checked="" type="checkbox"/>	5.1	Measure/evaluate current weather conditions					
<input checked="" type="checkbox"/>	5.2	Conduct flight and crew briefing					
<input checked="" type="checkbox"/>	5.3	Demonstrate preflight inspections on system components					
<input checked="" type="checkbox"/>	5.4	Recite critical memory or bold face items for emergency procedures					
<input checked="" type="checkbox"/>	5.5	Demonstrate compass calibrations					
<input checked="" type="checkbox"/>	5.6	Complete before flight checklist(s)					
<input checked="" type="checkbox"/>	6.0	Conduct Flight operations (Flight profiles)					
<input checked="" type="checkbox"/>	6.1	Demonstrate safe takeoff procedures					
<input checked="" type="checkbox"/>	6.2	Demonstrate safe landing procedures					
<input checked="" type="checkbox"/>	7.0	Conduct Emergency Tasks					
<input checked="" type="checkbox"/>	8.0	Conduct Culmination flight (EVAL FLT) and written or verbal exam					
TRAINEE NAME				CFETR/JQS NUMBER		PAGE NO.	

DAF FORM 797, 20230331

Prescribed by: DAFMAN 38-2689

PREVIOUS VERSIONS OF THIS FORM MAY BE USED

Attachment 4

SAMPLE AF FORM 1381 USAF CERTIFICATION OF AIR CREW TRAINING

Figure A4.1. Sample AF Form 1381 Entries.

USAF CERTIFICATION OF AIRCREW TRAINING		
THIS IS TO CERTIFY THAT		
LAST NAME, FIRST, MIDDLE INITIAL AND DoD ID Number Bohenry, Eliza O. 0123456789		
HAS SATISFACTORILY COMPLETED THE TRAINING OR SPECIAL QUALIFICATION INDICATED HEREON		
TRAINING REQUIREMENT/SUBJECT TITLE	DATE COMPLETED	CERTIFYING OFFICIAL/ORGANIZATION
Initial Group 1 Certification/ RQ-20B/ Puma	20190301	Robert N. Ross, CTV, USAF/27 SOW/SF
Mission Training certification-Security Forces/RQ-20B/Puma & RQ-11B/Raven	20190415	Fred M. Rodgers, Capt, USAF/27 SOW/SF
Special Certification Training/Moving Vehicle Deployment	20190607	Fred M. Rodgers, Capt, USAF/27 SOW/SF
Initial Group 2 certification/Scan Eagle 2	20191023	Fred M. Rodgers, Capt, USAF/27 SOW/SF
Instructor Upgrade (sUAS-I)/RQ-20B/Puma	20191104	Fred M. Rodgers, Capt, USAF/27 SOW/SF
Decertification/RQ-20B/Puma & Scan Eagle 2 (Greater than 180 days from last event)	20190904	Fred M. Rodgers, Capt, USAF/27 SOW/SF
Recertification/RQ-20B/Puma	20191029	Jon B. Doe, CTV, USAF/27 SOW/SF
Acceptance of Group 1 Certification/RQ-20B/Puma & RQ-11B/Raven	20200113	Conny L. Apples, Capt, USAF/49th FW/PA
Decertification/RQ-20B/Puma & RQ-11B/Raven (No sUAS systems in unit inventory or mission requirements)	20200201	Conny L. Apples, Capt, USAF/49th FW/PA
Initial Group 1 Certification/ Phantom 4 and Phantom 4 Pro	20200225	Conny L. Apples, Capt, USAF/49th FW/PA
Mission Training Certification-PA/Phantom 4 and Phantom 4 Pro	20200302	Jake R. Meadows, MSgt, USAF/49th FW/PA
Recertification/RQ-20B/Puma	20200326	Jake R. Meadows, MSgt, USAF/49th FW/PA
Biennial Certification Flight/RQ-20B/Puma	20220315	Jake R. Meadows, MSgt, USAF/49th FW/PA
Commander appointed Evaluator (sUAS-E)/Jump 20	20220401	Jake R. Meadows, MSgt, USAF/49th FW/PA

Attachment 5

SAMPLE AFSOC FORM 13 GROUP 1 AND 2 sUAS EVALUATION FORM

Figure A5.1. Sample Group 1 and 2 sUAS Evaluation Form.

Group 1 and 2 sUAS Evaluation Form			
NOTE: A grade of "UNSAT" in any graded area marked with an (*) results in an overall evaluation grade of "UNSAT"			
Name (Last, First, Middle Initial)		Grade	Date
Organization and Location		sUAS (MDS and/or system name)	Evaluation Type
Graded Area	Grade	Graded Area	Grade
1. Safety *		8. Airspace Rules / Procedures	
2. Judgement *		9. Flight Planning	
3. Flight Discipline *		10. Briefings	
4. Emergency Procedures *		11. Takeoff / Launch	
5. Written Exam/Closed Book *		12. Mission Execution	
6. Written Exam/Open Book		13. Landing / Recovery	
7. Verbal Exam		14. Post Flight Procedures	
Evaluation / Mission Description		15. Instructional Ability (sUAS-I) *	
Comments / Recommended or Directed Training			
Expiration Date		Overall Evaluation Grade	
Evaluator	Date	Reviewer	Date
Printed Name and Grade		Printed Name and Grade	
Organization		Organization	
Signature		Signature	
Signature		Signature	

Attachment 6

SAMPLE UNIT sUAS-I UPGRADE TRAINING PROGRAM

A6.1. Instructor Upgrade Training. At a minimum, Instructor Upgrade Training will consist of a verbal review and flight(s) that demonstrates the sUAS-I candidate's ability to instruct MT and perform recurrency training. **(T-3)** Units may add additional missions and training objectives, as desired. Training should reflect the complexity of the unit's use of sUAS IAW their unit METL. **Exception:** If the sUAS-I candidate is certified in multiple sUAS platforms that are similar and/or MT task items for each platform are similar, training may be combined and accomplished concurrently during a single sortie. (i.e., a candidate is certified on both the Raven and Puma and flying a Raven mobile operation conducted exactly the same with the Puma, the sUAS-I candidate only needs to execute that task on a single platform.) All additional tasks that differ from platform to platform must be executed separately. sUAS-I candidates will observe a certified sUAS-I instruct unit MT prior to conducting sUAS-I upgrade training. **(T-3)**

A6.2. Documentation. Training task items will be documented on DAF Form 797 or equivalent form. Record the sUAS-I upgrade certification on AF Form 1381. **(T-2)**

A6.3. Oral review. Each sUAS-I candidate will be given a verbal review of relevant material from the appropriate UAS operators manual, CJCSI 3255.01, DAFMAN 11-502, local flying procedures and local range procedures. **(T-2)** Discussions should emphasize normal and emergency procedures, local coordination procedures, sUAS-O and sUAS-I responsibilities.

A6.4. Flight Demonstration. Candidate sUAS-I(s) will demonstrate the ability to operate and instruct under the supervision of a certified and current sUAS-I. **(T-3)** Squadron/units are responsible for developing the unit sUAS-I upgrade training program, which may reflect the below examples:

A6.4.1. Flight 1. The sUAS-I candidate should plan and conduct a flight training profile under the supervision of a sUAS-I. The mission profile should focus on providing instruction (and corrections as necessary) on basic aircraft certification skills and assumes the sUAS-O(s) require supervision and/or instruction to regain currency. Objectives are:

A6.4.1.1. Conduct the preflight briefing.

A6.4.1.2. Monitor site setup: system assembly and mission planning.

A6.4.1.3. Normal procedures: checklist usage, crew coordination, and minor maintenance.

A6.4.1.4. Monitor crew during flight: maintain situational awareness on airspace and air vehicle, emergency procedures.

A6.4.1.5. Monitor recovery and processing of data.

A6.4.1.6. Monitor site teardown and load out.

A6.4.1.7. Conduct mission debriefing.

A6.4.1.8. Emergency procedures.

A6.4.1.9. Logging flights into SUASMAN.

A6.4.2. Flight 2. The sUAS-I candidate should plan and conduct a flight training profile under the supervision of a sUAS-I. The focus of the profile should be on instruction of sUAS-O(s) in unit-specific mission certification training. Objectives are:

- A6.4.2.1. Conduct the preflight briefing.
- A6.4.2.2. Tactical launch and recovery procedures.
- A6.4.2.3. Advance Intelligence, Surveillance and Reconnaissance.
- A6.4.2.4. Water operations.
- A6.4.2.5. Mobile operations.
- A6.4.2.6. Special payload use.
- A6.4.2.7. Handoff/relay procedures.

Attachment 7

SAMPLE RM WORKSHEET AND FLIGHT AUTHORIZATION

Figure A7.1. Sample RM Worksheet and Flight Authorization.

RM Worksheet and Flight Authorization						
Introduction						
1. Obtain "Authorized by" initials before flight. Any changes to sUAS crew members, systems or date of flight requires FA approval.						
2. The Lead sUAS-O will initial "Go-No go" after all members comply with medical, currency, and read file as applicable.						
3. File this form with the Unit prior to flight. Verbally update risk with your as circumstances change during flight.						
4. The Lead sUAS-O will determine the overall risk level with inputs from crew, but risk will be if an asterisks item annotated.						
5. Overall ORM approval levels MODERATE = Site Lead or Higher: HIGH = unit DO or higher. Asterisk = Unit/ CC or Higher.						
sUAS Crew (list last Names)	Go/ No-Go		Date of Flight	System	Authorized by/ Date	
Lead sUAS-O	(Initials)					
			Purpose (Reward)			
			Guest/VIP's flight authorized (Yes or No)			
			Risk			
			SPECIFIC CONSIDERATIONS (Circle Applicable Items)			
Mission	L	M	H	LOW	MODERATE	HIGH
Type/Complexity				Single Ship/Proficiency Sortie/ Day	Multi Ship/Simple Exercise/Night	* Test Mission/ Complex Exercise
Deconfliction				No shared airspace with positive communication with controlling agency	Shared Airspace with multiple controlling agencies	* No formal Deconfliction or direct communications with a controlling agency
Ground Maneuvers				None	Mobile OPS W/Troops	*Convert Mobile OPS; Live Fire
Overall MISSION is rated:						
Equipment	L	M	H	Low	Moderate	High
Equipment and Spare Parts				No degraded equipment	Limited spare parts/ Minor degradation	* Significant system degradation
Configuration				Hand control/RSTA Configuration	Two hand controllers	
Overall Equipment is rated:						
Terrain (Environment)	L	M	H	Low	Moderate	High
RF Environment Interference				No Interference Loss of link not likely	Moderate Interference Small chance of loss of link	High Interference High likelihood of loss of link
Launch and Recovery				No obstacles within 500m or reportable damage not likely	Increased risk for AV damage	* Damage likely or no CLS
Airspace Compliance				Within Visual Line of Sight	Not in Visual LOS (Restricted A/S, sufficient airspace is available)	*Airspace is confined, moderate chance to violate airspace
Weather				Winds: 0-50% of max limits VFR: 500(B)/1000(A)/2000(H) Visibility: >3SM • No additional hazards	Winds: 51-75% of max limits VFR: 500(B)/1000(A)/2000(H) Visibility: > or = to 3SM • Light Precipitation	Winds: > 75% of max limits VFR: 500(B)/1000(A)/2000(H) Visibility: > or = to 3SM • Mod-Heavy Precipitation
Heat/ Cold stress				Temps(F): > 50° / < 85°	Temps(F): 40°- 50° 85°- 90°	Temps(F): <40° / >90°
Overall Terrain is rated:						
Troops	L	M	H	See Back for Individual Assessments		
Overall Troops are rated:						
Time	L	M	H	Low	Moderate	High
Planning / Preparation				Normal (3+ days' notice)	Scheduled 24 hours prior	Last Minute
Execution				One or Multiple sites outside of 1km separation/ pre-coordinated Deconfliction	Multiple sites inside 1km / pre-coordinated Deconfliction	* Multiple sites inside 1km/ No pre-coordinated Deconfliction
Overall Time is rated:						
	L	M	H			
Overall Mission Risk						
TOP RISK FOR THIS MISSION				RISK MITIGATION FACTORS		
1.				1.		
2.				2.		
3.				3.		
Lead sUAS-O Signature _____				Additional Signature (as required) _____		

Figure A7.2. Sample RM Worksheet and Flight Authorization.

Lead sUAS-O:	Total Score: 0-4 = Low	Total Score: 5-9 = Moderate	Total Score: >10 = High
Work Stress Level	Low = +0	Moderate = +1	High = +3
Quality of crew rest: Chronic/ Acute Fatigue	Good = +0	Fair = +1	Bad = +3
Additional Personnel Distractions	None = +0	Minor = +1	Major = +3
Actual events: flights/sims in calendar week (Mon-Sun)	>3 = +0	1-2 = +1	0 = +3
Circadian Rhythm Shift (last 4 days)	None = +0	Day to Nights = +1	Night to Day = +3
Proficiency level for operational tasks	Very = +0	Moderately = +1	Nonproficient = +3
Total ORM Score for Lead sUAS-O	Total Score:	> 4 total score requires CC/DD Approval	
sUAS-O:	Total Score: 0-4 = Low	Total Score: 5-9 = Moderate	Total Score: >10 = High
Work Stress Level	Low = +0	Moderate = +1	High = +3
Quality of crew rest: Chronic/ Acute Fatigue	Good = +0	Fair = +1	Bad = +3
Additional Personnel Distractions	None = +0	Minor = +1	Major = +3
Actual events: flights/sims in calendar week (Mon-Sun)	>3 = +0	1-2 = +1	0 = +3
Circadian Rhythm Shift (last 4 days)	None = +0	Day to Nights = +1	Night to Day = +3
Proficiency for events Planned	Very = +0	Moderately = +1	Nonproficient = +3
Total ORM Score for sUAS-O	Total Score:	> 4 total score requires CC/DD Approval	
sUAS-O:	Total Score: 0-4 = Low	Total Score: 5-9 = Moderate	Total Score: >10 = High
Work Stress Level	Low = +0	Moderate = +1	High = +3
Quality of crew rest: Chronic/ Acute Fatigue	Good = +0	Fair = +1	Bad = +3
Additional Personnel Distractions	None = +0	Minor = +1	Major = +3
Actual events: flights/sims in calendar week (Mon-Sun)	>3 = +0	1-2 = +1	0 = +3
Circadian Rhythm Shift (last 4 days)	None = +0	Day to Nights = +1	Night to Day = +3
Proficiency for events Planned	Proficient = 0	Moderately = +1	Nonproficient = +3
Total ORM Score for sUAS-O	Total Score:	> 4 total score requires CC/DD Approval	
sUAS-O:	Total Score: 0-4 = Low	Total Score: 5-9 = Moderate	Total Score: >10 = High
Work Stress Level	Low = +0	Moderate = +1	High = +3
Quality of crew rest: Chronic/ Acute Fatigue	Good = +0	Fair = +1	Bad = +3
Additional Personnel Distractions	None = +0	Minor = +1	Major = +3
Actual events: flights/sims in calendar week (Mon-Sun)	>3 = +0	1-2 = +1	0 = +3
Circadian Rhythm Shift (last 4 days)	None = +0	Day to Nights = +1	Night to Day = +3
Proficiency for events Planned	Proficient = 0	Moderately = +1	Nonproficient = +3
Total ORM Score for sUAS-O	Total Score:	> 4 total score requires CC/DD Approval	
sUAS-O:	Total Score: 0-4 = Low	Total Score: 5-9 = Moderate	Total Score: >10 = High
Work Stress Level	Low = +0	Moderate = +1	High = +3
Quality of crew rest: Chronic/ Acute Fatigue	Good = +0	Fair = +1	Bad = +3
Additional Personnel Distractions	None = +0	Minor = +1	Major = +3
Actual events: flights/sims in calendar week (Mon-Sun)	>3 = +0	1-2 = +1	0 = +3
Circadian Rhythm Shift (last 4 days)	None = +0	Day to Nights = +1	Night to Day = +3
Proficiency for events Planned	Proficient = 0	Moderately = +1	Nonproficient = +3
Total ORM Score for sUAS-O	Total Score:	> 4 total score requires CC/DD Approval	

Attachment 8

NANO AND MICRO SUAS REQUIREMENTS

A8.1. Initial Training (IT). IT training can be accomplished by any of the following:

A8.1.1. Attend an FTU course, if the specific sUAS is part of the approved FTU curriculum.

A8.1.2. Attend a Lead Command approved vendor or unit IT training course.

A8.1.3. Unit(s) initiating a program for a specific platform will send at least two candidates to an approved IT course for that particular platform. Once candidate(s) has successfully completed the IT course, the unit commander will designate sUAS-I(s) and follow the unit sUAS-I program. (T-3) See [Attachment 6](#).

A8.2. Unit IT. Designated sUAS-I(s) can develop unit IT courseware that must be reviewed and approved by MAJCOM before sending to Lead Command for final approval. Once approved, the IT course can be utilized to train additional personnel at the unit level. Any updates to the courseware must be sent to Lead Command to update courseware file.

A8.3. Currency/Recurrency. Unit Commander will determine Program requirement(s) for Currency, MT, CT, Stan/Eval, or additional training requirements discussed in Chapter(s) 3 and 4. (T-2)

Attachment 9

GROUP(S) 1 AND 2 CONTINUATION TRAINING

A9.1. sUAS-O(s) will complete one live flight every 90 days. (T-2) A live flight consists of basic flight control during a sortie (minimum flight duration may be determined by unit commander) that consists of a unit directed event. See **Table A9.1. Exception:** Single use sUAS, including kinetic systems, are exempt from live flight currency requirements. sUAS-Os may maintain currency on these systems through approved simulators.

A9.1.1. Failed launches will not be counted by sUAS-O. (T-3)

A9.1.2. Simulated flights will not be counted by sUAS-O for currency. (T-2) Unit commander may designate additional (live or simulator) flights be accomplished, for proficiency, beyond the 90-day live minimum flight requirement in **Table A9.1. Exception:** sUAS intended for one time use, including kinetic systems. See **paragraph A9.1.**

A9.2. The 90-day requirement is based off the IT initial certification date, re-certification date, or completion of the last live flight within the required 90 days.

A9.3. Unit commander will determine appropriate training events that may be accomplished using a Lead Command approved sUAS simulator. (T-3)

A9.4. Each crew position involved will review all EPs to include challenge/response checklists items, prior to the first sortie of the day for each sUAS flown.

A9.5. Currency/Recurrency. Unit Commander is highly encouraged to and may establish program requirements discussed in Chapter(s) 3 and 4 beyond the minimum requirements listed.

Table A9.1. MINIMUM CURRENCY REQUIREMENTS.

Event	Group 1 and 2	
	# Required	Period
Live Flight	1	90 days
Biennial Evaluation Flight	1	24 months

A9.6. Failure to complete CT requirements. The unit sUAS PM is responsible for keeping unit commander advised of assigned sUAS-O(s) training status.

A9.6.1. Non-current sUAS-O(s) is/are not authorized to operate sUAS unless under direct supervision of a current and certified sUAS-I.

A9.6.2. sUAS-O recurrency requirements are as follows:

A9.6.2.1. Failure to execute a live flight for up to six (6) months from your last flight. sUAS-O(s) who fail to accomplish the required quantities and frequency of CT events to maintain currency will execute a live recurrency flight to a sUAS-I to demonstrate proficiency of operator responsibilities. The sUAS-I will ensure the recurrency flight is recorded on AF Form 1381 and logged in SUASMAN. This will not be accomplished on a simulator. (T-2)

A9.6.2.2. Failure to execute a live flight exceeding six (6) to 24 months from your last flight. sUAS-O(s) who become non-current exceeding six (6) months, or who do not accomplish a live flight prior to the last day of the 24th month, must complete unit-level training, under the instruction of a sUAS-I, in all delinquent items and any additional training as directed by the unit commander. **(T-2)** At a minimum, additional training will consist of MT and a biennial evaluation administered by a sUAS-I. The sUAS-I will ensure the biennial evaluation and MT completion is recorded on AF Form 1381 and logged in SUASMAN. This will not be accomplished on a simulator. **(T-2)**

A9.6.2.3. Failure to execute a live flight exceeding 24 months from your last flight requires re-accomplishment of IT and MT.

Attachment 10

SUAS UNIT TRAINING TOPICS CHECKLIST

A10.1. Purpose. This outline provides Air force Units and applicable vendors with a standard or base line requirement to submit for review and approval. The intent is for A3OU Training/Operations section to be able to provide a rapid and comprehensive review of a course program of instruction based on the materials a Unit or vendor provides. The outline is comprised of basic applicable information, requirements and standards listed within most Operator/Instructional manuals to safely operate the system. The A3OU has also added some additional information (i.e., lectures, presentations, demonstrations, flight cards, etc.) which is required to see to properly assess your course. The course outline should be followed when applicable, however, it's understood there are a vast variety of systems and that not all are capable to fill each category.

A10.2. Training Program Templates. Required and/or example templates can be found in SUASMAN under the vendor and specific platform folders. (i.e., DJI Mavic Pro and Skydio X2D, etc.) With prior coordination, the A3OU may have other program templates similar to your desired program that can be sent via "DoD SAFE" or any other identified secure access file exchange, to use as an additional example to develop your unit IT courseware.

A10.3. Contacting the Training Team. MAJCOMs can contact the A3OU training team by sending an email to AFSOC.A3OU.WF@us.af.mil. The training team will respond and assist the unit through the development phase, when required. When your unit courseware package is complete, coordinate with your MAJCOM to begin their review and approval process. Once the MAJCOM approves, they will send an email to AFSOC.A3OU.WF@us.af.mil requesting A3OU to begin the final review and approval process. A training team member will be assigned to review your program and will send you an email providing instructions to send your program files via "DoD SAFE" or any other identified secure access file exchange to begin the review and approve process.

A10.4. Courseware. The following items will be required (where applicable) for a full and comprehensive review of Initial Training courseware:

A10.4.1. DAF Form 797 or Equivalent (Master Task List).

A10.4.2. Syllabus/POI/MOI.

A10.4.3. Course Schedule.

A10.4.4. Presentations/instructor notes (if applicable).

A10.4.5. Demonstrations and practical exercises (if applicable).

A10.4.6. Flight profiles or lessons to include a culmination/evaluation flight. A culmination/evaluation flight is a single flight comprised of multiple tasks that were conducted in previous flights throughout the course. (i.e., check-ride).

A10.4.7. Additional training materials: manuals, manufacturer produced videos, etc. (if applicable).

A10.4.8. Written/verbal exam(s) with answer sheet(s).

A10.4.9. Copy of graduation certificate (vendor/FTU).

A10.5. Major Topics of Discussion. The following lists the major topic areas to be included in all courseware (where applicable):

- A10.5.1. System Characteristics, Limitations and Safety.
- A10.5.2. System Software.
- A10.5.3. Equipment Assembly.
- A10.5.4. Pre-Flight Inspections/Checks.
- A10.5.5. Launch.
- A10.5.6. Aircraft Maneuvering.
- A10.5.7. Sensor/Payload Operation and Data Collection (if applicable).
- A10.5.8. System Malfunctions and Troubleshooting.
- A10.5.9. Emergency Procedures.
- A10.5.10. Recovery and Landing.
- A10.5.11. Post Recovery Procedures/Data Retrieval.
- A10.5.12. Operator/Depot Level Maintenance.
- A10.5.13. System Simulator (if Applicable).

Table A10.1. Course Outline Categories.

Course Outline Categories	Sub-categories
Course Schedule	<ul style="list-style-type: none"> - Number of Days - Time for testing - Time allowed for classes - Time for Practical Exercises
System Performance	<ul style="list-style-type: none"> - Characteristics - Capabilities - Limitations - Endurance - Safety Procedures
System Software	<ul style="list-style-type: none"> - Flight Planning Software - Payload - Applications - Imagery - Third Party Rizer (DJI) - Navigation (Man/Auto)
System Simulator (if applicable)	<ul style="list-style-type: none"> - Replication of Hardware and Flight - Mission Planning Simulator - Components

Applicable Checklist	<ul style="list-style-type: none"> - Preflight - Post Flight - Inspection/Maintenance
Flight Controls	<ul style="list-style-type: none"> - Hardware Identification - Software Identification - Buttonology
Operating Procedures/COA Review (If Applicable)	<ul style="list-style-type: none"> - Standard Operating Procedure (SOP) - Proper Employment
Applicable Publications (If required)	<ul style="list-style-type: none"> - Operator Manual - Maintenance Manual - Flight Logs
System Hardware	<ul style="list-style-type: none"> - Components - Description List
sUAS Mission Planning	<ul style="list-style-type: none"> - Analysis and Design - Site Selection - Emergency Response
Battery Charging	<ul style="list-style-type: none"> - System Components - Operation Instructions - Safety Considerations
System Assembly/Pre-Flight/Configuration	<ul style="list-style-type: none"> - Platform Assembly - Automated or Manual Preflight - Aircraft Specificity - Go/No Go - Initialization
Launch/Takeoff	<ul style="list-style-type: none"> - Method - Considerations - Procedure - Safe location

Attachment 11

CIVIL AIR PATROL (CAP) REQUIREMENTS

A11.1. Civil Air Patrol as the Auxiliary of the Department of the Air Force. 10 U.S.C. § 9492, *Status as volunteer civilian auxiliary of the Air Force*, identifies CAP as the Auxiliary of the DAF when its services are used by any department or agency in any branch of the federal government. The SecAF, or designee, places participating CAP members and assets in auxiliary status for the respective activity. All missions and programs, to include sUAS, conducted in auxiliary status, once authorized and assigned to CAP by the SecAF, or designee, are deemed to be Air Force Assigned Missions (AFAM). CAP conducts activities in corporate status when not assigned auxiliary status.

A11.1.1. CAP-USAF is the USAF program office for the Cooperative Agreement and ensures CAP complies with federal, state and local laws and directives and oversees the implementation of CAP when in their AFAM status. CAP-USAF monitors, supports, and oversees CAP's sUAS program and verifies CAP complies with tenets of this manual.

A11.1.2. CAP maintains a robust sUAS program. It is scaled and adapted to all of CAP's unique missions, activities, and volunteer members. Per the Cooperative Agreement, to fly AFAMs, CAP is required to establish and implement a sUAS program patterned after Air Force unmanned aviation programs. CAP only operates Groups 1 and 2 platforms.

A11.2. Airworthiness. CAP owns and maintains FAA-designated private use aircraft in all of its aviation programs. sUAS airworthiness is declared by the manufacturer or user under 14 CFR Part 107, *Small Unmanned Aircraft Systems*. CAP accepts airworthiness from its vendors for all sUAS platforms. CAP and CAP-USAF will provide aircraft airworthiness to AFSOC/A3OU upon request.

A11.3. Flight Approval Authority/Flight Release. Every CAP sUAS AFAM is approved by CAP-USAF and 1AF and released to the CAP National Operations Center (NOC), which reviews all mission approval and flight release requirements within CAP regulations and the CAP Mission Approval database which reside in the Web Mission Information and Reporting System (WMIRS)

A11.3.1. Risk Management (RM): CAP sUAS operators are required, per CAP regulations, to complete a RM worksheet prior to flight authorization.

A11.3.2. 1AF authorizes CAP missions for a specific period of time. Additional approvals must be done on a sortie-by-sortie basis by both 1AF and the CAP NOC.

A11.3.3. sUAS frequencies: When CAP operates in civilian airspace. sUAS pilots use FCC approved spectrums and under 14 CFR Part 107. When operating in DoD airspace, CAP coordinates with the installation spectrum office, ACC Spectrum Office, and AFSMO as needed.

A11.4. Airspace Coordination and Approval. The Federal Aviation Administration (FAA) considers all CAP aircraft and operations as "private use." CAP sUAS operate in accordance with 14 CFR Part 107. Any waivers to 14 CFR Part 107 are routed through the CAP National Headquarters (CAPNHQ). These waivers require an Operations Plan (OPLAN) specific to that operation and any special instructions (SPINS) specific to that mission.

A11.5. Commercial Off the Shelf (COTS) Waivers. Any platform cyber exemptions for AFAMs are staffed through the CAP-USAF Special Programs office for coordination through the A3S SharePoint.

A11.6. 1AF AFAM Approval Process. When CAP is executing AFAMs, they are beholden to DoD and federal directives. CAP's sUAS AFAMs include missions such as Federal Installation support, DSCA/IAA, FEMA imagery, Research and Design, Force Protection, Search and Rescue and off federal installation training and support. Each CAP mission is scrutinized and approved by CAP-USAF and 1AF after ensuring the mission details include: an OPLAN, Memorandum of Agreement (MOA), specified platforms, SecAF approval (as required), and a legal review.

A11.7. CONEMP vs OPLAN. Due to the unique nature of CAP sUAS operations across the entire United States, a Concept of Employment (CONEMP) for each location for unmanned flights is impractical. For operations involving regular exercises/sorties on DoD installations or distinct mission sets, a MOA is coordinated and signed between the installation commander, CAP-USAF/CC, and CAP's Chief Operating Officer. For missions involving operations off installation airspace, an OPLAN is required for 1AF approval and is attached to the mission file in WMIRS.

A11.8. Equipment Custodian. CAP has no access to any USAF systems. CAPNHQ/LG is responsible for tracking sUAS equipment issued to individual units. The availability reporting is the responsibility of the CAP Wing sUAS Officer within the CAP Operations Directorate. This information can be provided to AFSOC/A3OU upon request.

A11.9. Multiple Certification. CAP sUAS pilots can maintain multiple certifications per CAP regulations. This information is maintained in the CAPNHQ Operational Qualifications (OPSQUALS) database. This information can be provided to AFSOC/A3OU upon request.

A11.10. Flight Crew Information File (FCIF). CAP-USAF is the liaison between CAP and DoD and other federal entities. To ensure the flow of critical information from HAF, AFSOC, etc. impacting CAP's sUAS operations, the CAP-USAF Special Programs office shall maintain a SUASMAN account. CAP-USAF shall forward FCIFs to CAP in a timely manner. Because CAPNHQ does not have a traditional FCIF program, it will disseminate and sUAS FCIFs information in a CAP Critical Read File (CRF). Review of the CAPNHQ CRF is required by CAP regulations prior to mission execution.

A11.11. Special Interest Items (SII). See [paragraph A11.10](#).

A11.12. Go/No-Go Procedures. CAP maintains a positive control system that ensures CAP sUAS operators complete all required items prior to flight. CAP's Go/No-Go system uses 14 CFR Part 107 for foundational preflight requirements (medical status, alcohol consumption, etc.). All others are mandated by CAP regulations (Critical Read File view, Operational Risk Management, etc.).

A11.13. Compliance. CAP operates IAW 49 CFR Part 107, DoD, USAF and MAJCOM directives for AFAMs.

A11.14. Mishap Reporting. CAP sUAS mishaps and mishap reporting do not fall under USAF 91-series regulations. Per the Cooperative Agreement, as the "Owner/Operator" of Civil Air Patrol sUAS, CAP National Headquarters (CAPNHQ) shall comply with the mishap notification procedures described in 14 CFR, Chapter I, Part 107.9, as applicable, the Cooperative Agreement and CAP regulations.

A11.15. Communication with ATC. CAP shall comply with FAA communications requirements. Operations on or about a federal installation require coordination with any and all air traffic controlling agencies and approval from the installation commander. When operations are conducted off installation and within FAA controlled airspace, communication requirements will be in accordance with 14 CFR Part 107 or an associated waiver to a specific portion of 14 CFR Part 107. sUAS operations in FAA uncontrolled airspace will comply with 14 CFR Part 107 and CAP regulations. This includes complying with the Title 14, Code of Federal Regulations, **Part 89**, *Remote Identification of Unmanned Aircraft*, dated 15 January 2021, requirement for remote identification (RID) of all sUAS.

A11.16. Aircraft Lighting. CAP shall comply with 14 CFR Part 107 as required.

A11.17. Flight Data Capture. CAP meets the requirements of Flight Data Capture.

A11.18. Adverse Weather. CAP shall comply with 14 CFR Part 107 and applicable CAP regulations.

A11.19. Stores and Weapons. CAP does not have any weapons for their sUAS platforms. Dropping of stores is governed by 14 CFR Part 107 and requires FAA waivers to do so. Dropping of stores must be approved by CAPNHQ and airworthiness of stores must be certified by the CAP Nation Technology Center. This information can be provided to AFSOC/A3OU upon request.

A11.20. See and Avoid. CAP shall comply with 14 CFR Part 107 and applicable CAP regulations.

A11.21. Safety/Risk Management. Per the Cooperative Agreement, CAP-USAF requires CAP to maintain vigorous safety and risk management program. With respect to sUAS operations, CAP mandates safety/RM program in CAP regulations.

A11.22. CAP sUAS Pilot Medical Requirements. CAP shall comply with 14 CFR Part 107 and applicable CAP regulations.

A11.23. Scheduling Limitations/Alcohol Consumption. CAP shall comply with 14 CFR Part 107 and applicable CAP regulations.

A11.24. Pre-Mission Planning. CAP sUAS pilots will accomplish pre-flight planning as mandated in CAP regulations.

A11.24.1. All CAP Operations pilots are required to be FAA certificated Remote Pilots to conduct commercial operations. They are required, by law, to comply with 14 CFR Part 107.

A11.24.2. Weather: CAP sUAS pilots will obtain sufficient weather information to safely conduct the flight and adhere to operator's manual restrictions, 14 CFR Part 107, and applicable CAP regulations.

A11.25. Briefings. CAP pilots will ensure each crewmember is briefed on items affecting safety or mission completion. These briefings will include, but need not be limited to:

A11.25.1. Emergency procedures IAW in 14 CFR Part 107 and applicable CAP regulations.

A11.25.2. Airspace/operating area, approved frequencies, and method of complying with restrictions IAW 14 CFR Part 107 and applicable CAP regulations.

A11.25.3. Safety precautions and restrictions, including use of electronic devices that may cause interference IAW 14 CFR Part 107 and applicable CAP regulations.

A11.25.4. Special procedures and instructions for use during training or operational missions IAW CAP checklists and CAP regulations.

A11.26. Fuel/Battery Charge Requirements. CAP sUAS pilots will ensure sufficient fuel/battery charge is available to safely conduct or continue the flight IAW CAP checklists and CAP regulations. CAP requires landing with 20% battery/fuel reserve.

A11.27. Training. CAP sUAS pilots are trained, certified, and authorized to plan and conduct sUAS operations in approved airspace. CAP requires all pilots to possess an FAA certificate as a remote pilot in accordance with 14 CFR Part 107. All pilots undergo an annual check ride from an authorized check pilot. Mission qualified pilots undergo two separate annual flight checks in the various aircraft they are qualified in. CAP flight training requirements are laid out in 14 CFR Part 107 and applicable CAP regulations.

A11.28. Continuation Training (CT). CAP pilots conduct CT to maintain and develop proficiency in sUAS to support unit mission IAW 14 CFR Part 107 and applicable CAP regulations.

A11.29. Standardization and Evaluation Program. CAP maintains a strong standardization and evaluation program. All CAP remote pilots are evaluated annually. All evaluation records are maintained in CAP's OPSQUALS database. Guidance for their standardization and evaluation program is outlined in CAP regulations.