

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

AIR FORCE POLICY DIRECTIVE 11-5

17 AUGUST 2009

Flying Operations



**SMALL UNMANNED AIRCRAFT SYSTEMS
(SUAS) RULES, PROCEDURES, AND
SERVICE**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: HQ AF/A3O-AS

Certified by: AF/A3/5
(LtGen Daniel J. Darnell)

Supersedes: SUAS CONOPS Annex A, B, & C,
1 Oct 2007

Pages: 8

Air Force Small Unmanned Aircraft Systems (SUAS) operations encompass worldwide missions, day and night. For daily operations and times of crises the Air Force (including the Air National Guard and Air Force Reserves) requires rules and procedures to support safe and successful Air Force unmanned aircraft operations. This directive provides the policy to ensure safe and successful Air Force SUAS operations.

Submit proposed changes to this directive through functional channels to the office of primary responsibility (OPR) using AF Form 847, *Recommendation for Change of Publication*. Ensure that all records created as a result of processes described in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Information Management System (AFRIMS) Records Distribution Schedule (RDS) located at <https://www.my.af.mil/gcss-af61a/afrims/afrims/>.

SUMMARY

This is an initial AFPD. However, it does supersede the CONOPS listed in the above supersession line.

1. **General.** Joint Forces Command (JFCOM) Joint Concept of Operations (CONOPS) for Unmanned Aircraft Systems (UAS) categorized the entire Department of Defense (DOD) UAS family based on the enduring attributes of weight, altitude and speed. Based on this categorization methodology, Air Force SUAS operations encompass systems from Groups 1, 2,

and 3. SUAS rules and procedures are closely aligned to crews of manned aircraft and operations. The similarities include: aerial platforms; disciplined, professional operators/crews; use of airspace; requirement for aviation maintenance/logistical support; and training. Mission requirements, SUAS capabilities, airspace of intended operations, and assessed risks are all factors used to determine operator training and qualification requirements. All Major Commands (MAJCOMs), Field Operating Agencies (FOAs), and Direct Reporting Units (DRUs) will comply with guidance published in the applicable SUAS Group Air Force Instructions (AFIs).

2. Responsibilities:

2.1. The Air Force Deputy Chief of Staff, Operations, Plans, and Requirements (AF/A3/5) establishes and interprets SUAS policy and shall:

2.1.1. Provide oversight for SUAS rules and procedures.

2.1.2. Approve or delegate approval authority for AFI 11-502, (Volume 1, 2, and 3) and the corresponding SUAS Group-specific AFIs.

2.2. Air Force Special Operations Command (AFSOC) is the designated lead command for SUAS, executes its responsibilities IAW Air Force Policy Directive (AFPD) 10-9, *Lead Command Designation and Responsibilities For Weapon Systems*, and shall:

2.2.1. Coordinate with all user commands to establish guidance for SUAS Groups 1, 2, and 3.

2.2.2. Consider the widely varying missions when developing and coordinating publications for each SUAS Group.

2.2.3. Designate and enforce use of a SUAS data management system. Information may be used to manage flying qualification, operator currency and training, system availability and status, and trend analysis. *EXCEPTION:* Air Force Materiel Command (AFMC) will incorporate a SUAS information management system into its own command-wide data manager.

2.3. The Air Force Deputy Chief of Staff, Director of Operations (AF/A3O) establishes and manages policy for training, standardization/evaluation (stan/eval) and general operations procedures and shall:

2.4. Serve as the OPR for the lead SUAS AFIs: AF/A3O-AS will be the OPR for AFI 11-502, Volume 1, *Small Unmanned Aircraft Systems Training* and Volume 2, *Small Unmanned Aircraft Systems Standardization/Evaluation Program*; AFFSA/A3O will be the OPR for Volume 3, *Small Unmanned Aircraft Systems Operations*.

2.5. The lead MAJCOM or FOA will establish and manage guidance and instructions for training, stan/eval and system operations procedures. The lead MAJCOM/FOA will coordinate with users to establish the guidance for SUAS training, stan/eval and operations procedures. Lead MAJCOM/FOAs need to be sensitive to the widely varying missions of SUAS users when developing and coordinating these publications. Lead MAJCOM/FOA for each new AFI 11-5 series are as follows:

2.5.1. AFSOC

2.5.1.1. AFI 11-5GP1-SUAS, Volume 1

- 2.5.1.2. AFI 11-5GP1-SUAS, Volume 2
- 2.5.1.3. AFI 11-5GP1-SUAS, Volume 3
- 2.5.1.4. AFI 11-5GP2-SUAS, Volume 1
- 2.5.1.5. AFI 11-5GP2-SUAS, Volume 2
- 2.5.1.6. AFI 11-5GP2-SUAS, Volume 3
- 2.5.1.7. AFI 11-5GP3-SUAS, Volume 1
- 2.5.1.8. AFI 11-5GP3-SUAS, Volume 2
- 2.5.1.9. AFI 11-5GP3-SUAS, Volume 3
- 2.5.2. AFMC
 - 2.5.2.1. AFI 11-5FT, Volume 1
 - 2.5.2.2. AFI 11-5FT, Volume 2
 - 2.5.2.3. AFI 11-5FT, Volume 3

3. Publications Structure:

3.1. The standardized AFI sets incorporate AFI 11-502 and SUAS Groups 1, 2, and 3 Volume sets. AFI 11-502 will provide guidance to the SUAS Group-specific AFIs and will be structured as follows:

3.1.1. AFI 11-502, Volume 1, *Small Unmanned Aircraft Systems Training*. This is the basic training guidance which creates a standardized program and form set for each SUAS Group.

3.1.2. AFI 11-502, Volume 2, *Small Unmanned Aircraft Systems Standardization/Evaluation Program*. Establishes the stan/eval that supports Air Force objectives. This instruction will provide guidance on how to structure and monitor a stan/eval program. It will also include a standard form set for all users.

3.1.3. AFI 11-502, Volume 3, *Small Unmanned Aircraft Systems Operations*. This instruction prescribes the rules that govern the operations of Air Force SUAS, operated by Air Force personnel, personnel of other services, foreign personnel, and civilian personnel. It will provide the basic operational framework for all operators of systems designated in this directive.

3.2. The lead MAJCOM, as designated in AFPD 10-9, will author and coordinate an AFI set for SUAS Groups 1, 2, 3 and flight test AFIs. Each SUAS Group will have its own AFI set and will be labeled as follows: (Groups 2 and 3 will adhere to the same structure)

3.2.1. AFI 11-5GP1-SUAS, Volume 1, *Group 1 SUAS Operator Training*. Institutes the mission specific training program, to include upgrade, continuation, and mission. This instruction will employ basic guidance provided in AFI 11-502, Volume 1.

3.2.2. AFI 11-5GP1-SUAS, Volume 2, *Group 1 SUAS Operator Evaluation Criteria*. Establishes mission/airframe specific evaluation criteria. Utilizes AFI 11-502, Volume 2, as the template to implement and monitor the program.

3.2.3. AFI 11-5GP1-SUAS, Volume 3, *Group 1 SUAS Operations Procedures*. Provides the regulatory guidance for general operations. This AFI will address many of the employment procedures and will use AFI 11-502, Volume 3, as the foundation for operational procedures.

3.3. AFMC will author a combined flight test publications set to govern AFMC flight operations. Procedures will be published in AFI 11-5FT, Volumes 1, 2 and 3.

3.4. SUAS Group-specific tactics and fundamental procedures may be incorporated as non-directive tactical level doctrine. These documents will be established by the Lead and User MAJCOMs and incorporated into Air Force Tactics Techniques and Procedures (AFTTPs) 3-1 and 3-3.

4. Publications Supplements:

4.1. MAJCOMs and FOAs may supplement AFI 11-502 or applicable SUAS Group-specific AFIs. These supplements will not be less restrictive than the lead-AFIs. Forward proposed supplements to AFI 11-502 Volumes 1, 2, or 3 to the appropriate Air Staff OPR for approval. Forward MAJCOM-approved supplements to SUAS Group-specific AFIs to the lead MAJCOM.

4.2. Limit SUAS Group-specific and AFI supplements to unique requirements only.

4.3. In order to promote maximum interoperability and standardization procedures, use only the basic SUAS Group-specific AFI when conflicting guidance exists between forces from Lead and User commands.

4.3.1. If necessary, commanders may use MAJCOM, FOA or theater-specific supplements and procedures with forces under their operational control. Theater commanders will provide the appropriate training; specify the duration of the procedures to be used; and ensure all participating forces understand the procedures.

5. Publications Development and Coordination.

New 11-5 series AFIs, interim changes, page changes and revisions will conform to AFI 33-360, *Publications and Forms Management*, and the timeline in **Attachment 2**.

5.1. The following will be sent directly to AF/A3O-AS for staffing. AF/A3O-AS will coordinate with the appropriate lead MAJCOM and provide recommendations to Director of Operations (AF/A3O) for approval.

5.1.1. New 11-5 series publications.

5.1.2. Revisions to all 11-5 series AFIs.

5.1.3. Interim changes to all 11-5 series AFIs, except Volume 3.

5.2. Coordinate all Volume 3 series interim changes and page changes through Air Force Flight Standards Agency (AFFSA) AFFSA/A3O for staffing who will forward to AF/A3O for approval. AFFSA/A3O must coordinate each SUAS Group-specific Volume 3, to ensure a comprehensive review for SUAS operational rules in controlled airspace. In addition, AFFSA/A3O must ensure the proper integration of SUAS with manned aircraft rules and procedures.

6. Terms.

6.1. SUAS. A UAS Group 1, 2, or 3 powered vehicle 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.

6.2. SUAS Group. Commonly accepted and understood UAS categories codified by JFCOM Joint UAS CONOP to establish the foundation for Joint/Coalition UAS terminology. Based on weight, operating altitude, and airspeed, all current and planned AF SUAS fall into one of three Groups.

6.2.1. Group 1 UAS: Typically weighs less than 20 pounds and normally operates below 1200 feet Above Ground Level (AGL) at speeds less than 250 knots.

6.2.2. Group 2 UAS: Typically weighs 21 – 55 pounds and normally operates below 3500 feet AGL at speeds less than 250 knots.

6.2.3. Group 3 UAS: Typically weighs more than 55 pounds, but less than 1320 pounds and normally operates below 18,000 feet Mean Sea Level at speeds less than 250 knots.

6.3. SUAS Crew. The total complement of individuals (e.g. SUAS Operator, Systems Operators) required for mission execution as defined by SUAS Group-specific AFIs.

6.4. SUAS Operator. The individual responsible for the safe ground and flight operation of the unmanned aircraft and onboard systems. Equivalent to the pilot-in-command of a manned aircraft.

7. **Waivers:**

7.1. The AF/A3O will authorize waivers to this directive for an essential MAJCOM requirement.

7.2. Send MAJCOM-coordinated waiver requests to AF/A3O-AS who will forward to AF/A3O for approval.

8. **Publications Interface.** See **Attachment 1** for publications that interface with this policy.

9. **Information Collection, Records, and Forms.**

9.1. Information Collections. No information collections are created by this publication.

9.2. Records. The program records created as a result of the processes prescribed in this Publication are maintained in accordance with AFMAN 33-363 and disposed of in accordance with the AFRIMS RDS located at <https://www.my.af.mil/gcss-af61a/afirms/afirms/>.

9.3. Forms (Prescribed and Adopted).

9.3.1. Forms Prescribed. No forms are prescribed by this publication

9.3.2. Forms Adopted. AF Form 847, *Recommendation for Change of Publication*.

MICHAEL B. DONLEY
Secretary of the Air Force

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

Joint Concept of Operations for Unmanned Aircraft Systems, 25 November 2008

AFI 33-360, *Publications and Forms Management*, 18 May 2006

AFMAN 33-363, *Management of Records*, 1 March 2008

AFPD 10-9, *Lead Command Designation and Responsibilities for Weapon Systems*, 8 March 2007

Interfacing Publications

AFI 11-201, *Flight Information Publications*, 1 September 1997

AFI 11-202, Volume 3, *General Flight Rules*, 5 April 2006

AFI 11-209, *Aerial Event Policy and Procedures*, 4 May 2006

AFI 11-214, *Air Operations Rules and Procedures*, 22 December 2005

AFI 11-215, *USAF Flight Manuals Program (FMP)*, 6 April 2005

AFI 11-218, *Aircraft Operations and Movement on the Ground*, 11 May 2005

AFI 11-260, *Tactics Development Program*, 12 December 2003

Abbreviations and Acronyms

AFSSA—Air Force Flight Standards Agency

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFMC—Air Force Materiel Command

AFPD—Air Force Policy Directive

AFRIMS—Air Force Records Information Management System

AFSOC—Air Force Special Operations Command

AFTTP—Air Force Tactics, Techniques and Procedures

AGL—Above Ground Level

CONOPS—Concept of Operations

DOD—Department of Defense

DRU—Direct Reporting Unit

FOA—Field Operating Agency

JFCOM—Joint Forces Command

MAJCOM—Major Command

OPR—Office of Primary Responsibility

RDS—Records Distribution Schedule

Stan/Eval—Standardization and Evaluation

SUAS—Small Unmanned Aircraft Systems

UAS—Unmanned Aircraft Systems

Attachment 2

AFI DEVELOPMENT AND COORDINATION

Table A2.1. AFI DEVELOPMENT AND COORDINATION.

Type of Publication	ACTION (days)						Total
	Author and Internal Coord ¹	Field Coord ²	AFI Resolution ³	Edit ⁴	Air Staff Coord ⁵	Publishing ⁶	
New	45	30	14	10	45	30	174
Revised	10	30	14	10	45	30	139
Change	5	15	5	5	10	5	45

¹ Author and Internal Coordination - MAJCOM OPR determines the need for a conversion of revision (NLT 2 years from AFI publishing date).

² Field Coordination - MAJCOM OPR coordinates draft AFI with user commands. The proposed forms are submitted to AFDPO at this time.

³ AFI Resolution - MAJCOM OPR consolidates comments and deliberates issues. If unable to resolve at MAJCOM level, forward issues to AF/A3O-AS or AFFSA/A3O for ultimate conflict resolution by the AF/A3O. A final draft is then published.

⁴ Edit - MAJCOM OPR develops the final package and submits it to AF/A3O-AS or AFFSA/A3O for coordination and approval. The MAJCOM OPR forwards the final AFI to the User commands to begin writing appropriate supplements.

⁵ Headquarters Air Force Coordination - AF/A3O-AS or AFFSA/A3O will coordinate with appropriate offices designated in AFI 33-360. The 45-day period is established for one full edit cycle to input the proposed changes at the Headquarters level.

⁶ Publishing - Due to the required submission dates the 30 days will cover publication and posting on the AF Publications web site.