

UNMANNED AIRCRAFT SYSTEM (UAS) DESK GUIDE



1.0

USFS

*Southwestern
Region*

UAS DESK GUIDE

Version 1.0
September 2016

INTRODUCTION

This Desk Guide has been developed to aid all employees in assessing and processing requests for the use of Unmanned Aerial Systems (UAS).

UAS Definition:

A UAS is an "aircraft" as defined in the Federal Aviation Administration's (FAA) authorizing statutes and is therefore subject to regulation by the Federal Aviation Administration (FAA). Forest Service policy states UAS must be considered the same as manned aircraft, in terms of acquisition, approval and carding of pilots and aircraft, inspections, maintenance, avionics, training, and operations.

Key Points:

- An approved agreement/Memorandum of Understanding (MOU) specific to UAS operations is required to utilize Federal Partner/ Cooperator aircraft on Forest Service system land and for Forest Service benefit.
- All UAS operations, activities, concerns, or requests shall be coordinated through the Regional Aviation Officer (RAO). This includes resource (non-incident) and incident operations and any clarification of hobby or recreational use of remote controlled aircraft on Forest Service lands.
- An approved Project Aviation Safety Plan (PASP) and MOU is required for all agency/cooperator UAS missions.
- In order to legally operate UAS in the federal airspace (for non-recreational purposes), UAS operators must obtain a remote pilot certificate and register their aircraft with the FAA or possess a 333 Exemption from the FAA.
- All operators must have the FAA registration certificate in their possession when operating an unmanned aircraft. The certificate can be available either on paper or electronically.
- The FAA does not require the UAS operator to get a COA before flying in uncontrolled (Class G) airspace. Operators who want to fly in controlled ([Class B, C, D, or E airspace](#) (PDF)) will need air traffic permission
- UAS are considered "mechanized" equipment and consequently cannot take off from, or land in, congressionally designated Wilderness Areas.
- A UAS Manager or Project Lead is required to be assigned to each project/mission utilizing a UAS.
- A Contracting Officer's Representative (COR) is required for each project /mission utilizing a UAS.

Start at the UAS Request Process Flow Chart on page 1

Table of Contents

UAS Flow Chart/Decision Tree (**Start Here**)

Chapter 1.....Recreational Use (Visitors Using UAS over NFS Lands)

Chapter 2Commercial Use of UAS

 Special Use Permits/Commercial Flights over NFS Lands

Chapter 3Agency Use of UAS

 University Research Projects on NFS Lands

 Employee Use of UAS to complete USFS projects

 Contracting UAS for USFS projects

Chapter 4Unauthorized UAS

Chapter 5Law Enforcement Resources

Chapter 6UAS Scenarios

Appendices:

Appendix A

UAS Request Form

Appendix B

Special Use Permits/Special Uses Requiring an Authorization

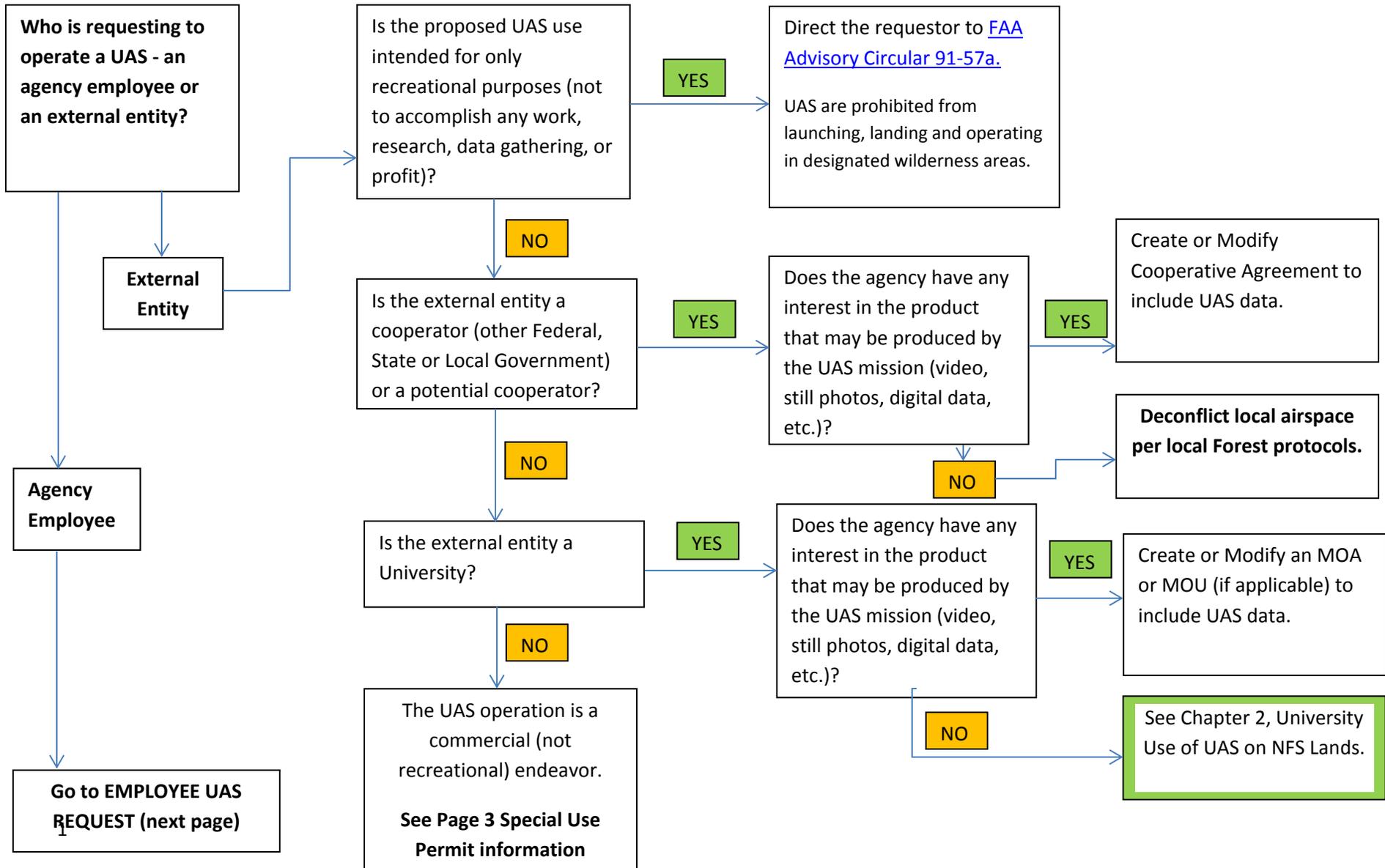
Appendix C

Sample Approval Letter to University for UAS Research on NFS Lands

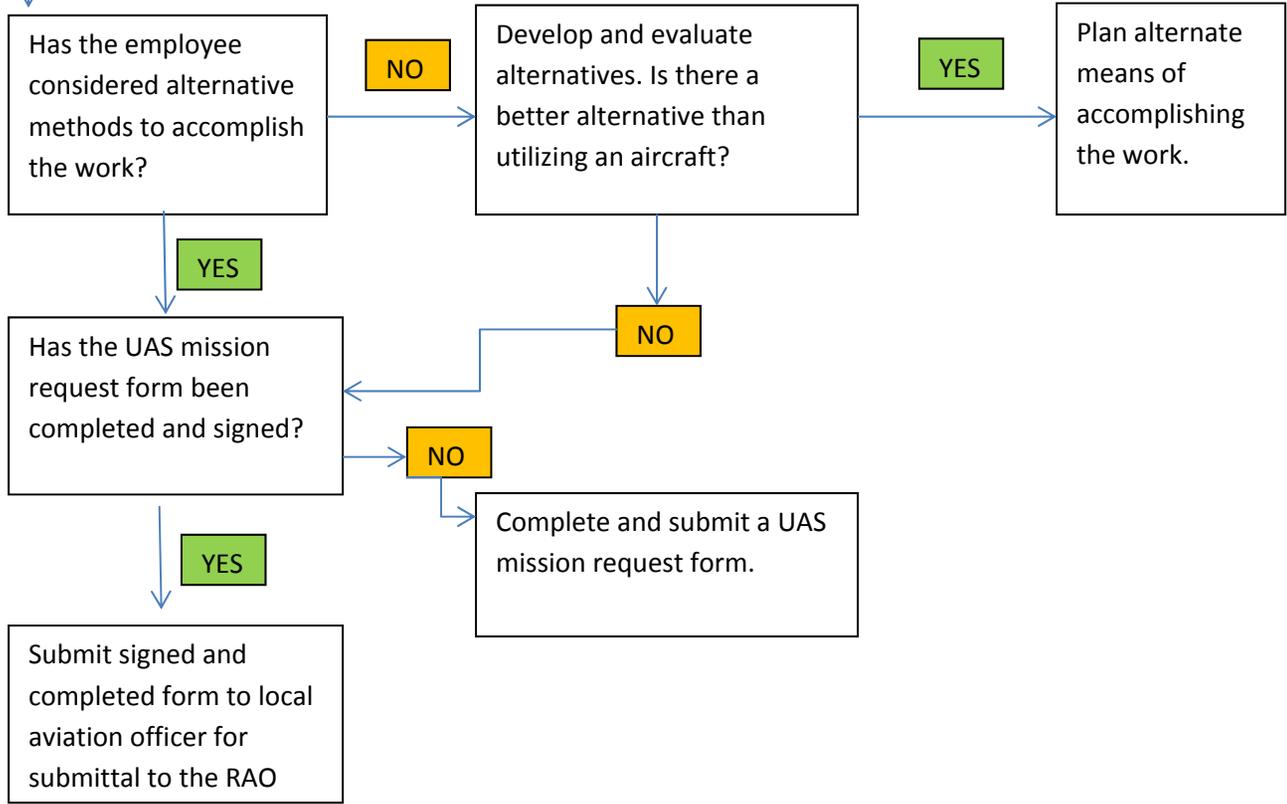
Appendix D

Reporting Script for UAS Intrusions on Wildfires

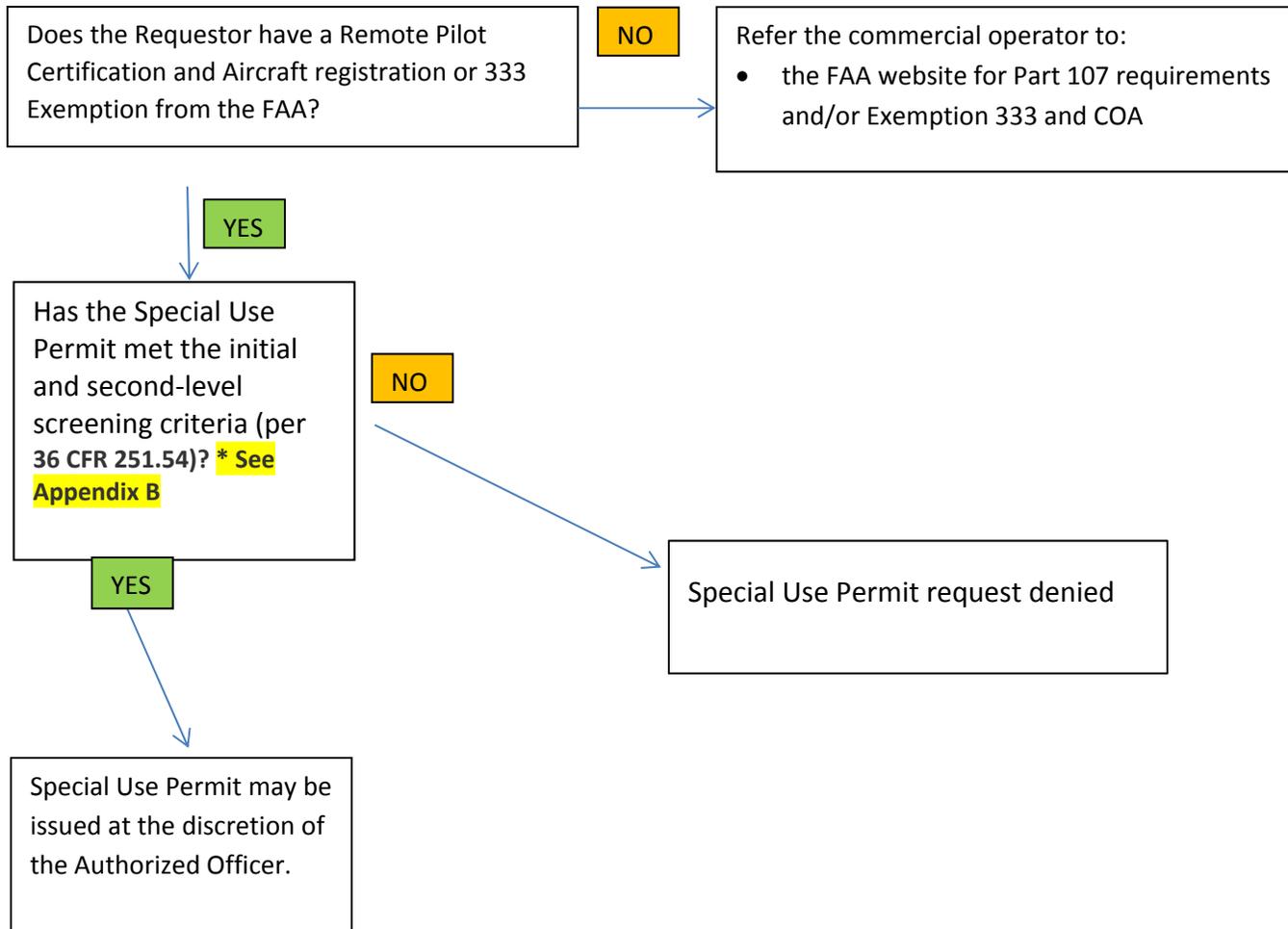
UAS REQUEST PROCESSING FLOW



EMPLOYEE UAS REQUEST



Special Use Permit for UAS (COMMERCIAL PURPOSES)



Chapter 1

Recreational Use of UAS on NFS lands

Recreational or hobby UAS use is flying for enjoyment and not for work, business purposes, or for compensation or hire. In the FAA's interpretation of the [Special Rule for Model Aircraft](#), the FAA relied on the ordinary, dictionary definition of these terms. UAS use for hobby is a "pursuit outside one's regular occupation engaged in especially for relaxation."

Key Points

- UAS are considered to be both "motorized equipment" and "mechanical transport" and, as such, they cannot take off from, land in, or be operated from congressionally designated wilderness areas.
- UAS are not permitted to fly in areas that have Temporary Flight Restrictions (TFR) in place, such as wildfires. Search the Federal Aviation Administration (FAA) Web site for current TFRs at <http://tfr.faa.gov/tfr2/list.html>.
- Never fly your UAS over or in close proximity to any wildfire operation. UAS flights over wildfires disrupt aerial firefighting operations and create hazardous situations.
- Keep UAS away from populated and noise-sensitive areas, such as campgrounds, trail heads, and visitor centers.
- Obey all privacy laws.
- Do not fly over congressionally designated wilderness areas or primitive areas as many people seek these places for the opportunities for solitude and quiet that they provide.
- Ensure that you comply with all FAA regulations and guidance for flying your UAS. The FAA has authority over all airspace. Information on FAA regulations is available at <http://www.faa.gov/uas/>.
- Do not fly any aircraft weighing more than 55 pounds (total weight, including payload and fuel source).
- Do not fly over or near wildlife as this can create stress that may cause significant harm and even death. Intentional disturbance of animals during breeding, nesting, rearing of young, or other critical life history functions is not allowed unless approved as research or management.

- Follow State wildlife and fish agency regulations on the use of UAS to search for or detect wildlife and fish.
- Launch the UAS more than 100 meters (328 feet) from wildlife. Do not approach animals or birds vertically with the UAS.

Per Arizona Game and Fish Commission Rules R12-4-301, R12-4-319 and R12-4-320:

Drones are considered aircraft and shall not be used to harass wildlife or assist in the taking of wildlife (used for hunting).

Per New Mexico Department of Game and Fish Title 19.31.10.13

It is unlawful to shoot at, pursue, harass, harr, drive or rally any protected species by use of or from a motor driven vehicle (i.e. drone)



Chapter 2

Commercial Use of UAS

Anyone operating a UAS for commercial purposes must possess a Remote Pilot Certificate and aircraft registration OR a 333 Exemption and a Certificate of Authorization (COA) from the FAA.

Commercial purposes include: filming (including You Tube Videos), UAS operated in conjunction with a contract (i.e. wildlife surveys, mapping, road inspections, etc.).

All commercial activities conducted on NFS lands must be permitted. See Appendix B for more information regarding Special Use Permits regulations.



Notify your Forest/Unit Aviation Officer when issuing a Special Use Permit to a commercial UAS operator, to insure airspace deconfliction.

Chapter 3

Agency Use of UAS

Employee use of personal UAS to accomplish agency/work related missions

U.S. Forest Service employees may not use their personal UAS to conduct agency missions. UAS are considered “aircraft” by the USFS and the FAA. Policy and regulations regarding the use of aircraft to conduct agency missions can be found in FSM 5700. Aviation policy includes guidance on pilot qualifications and aircraft airworthiness requirements. Questions regarding personal use of UAS should be directed to your Forest/Unit Aviation Officer.

Employee Purchase of UAS to accomplish agency/work related missions

U.S. Forest Service employees may not purchase or contract aircraft (including UAS) using their government issued purchase cards. All aircraft used to conduct agency missions must be acquired through the Aviation Acquisition Branch in Boise, ID. Questions regarding purchasing or contracting UAS should be directed to your Forest/Unit Aviation Officer.

Using Cooperator (State or other Federal Agency) Owned UAS on NFS Lands

The Department of the Interior (including the Bureau of Land Management) owns and operates several UAS. These aircraft may be used to conduct missions for the USFS provided that all of the following criteria are met:

- The UAS Request form has been submitted to the Forest/Unit Aviation Officer. (See Appendix A)
- A MOU is in place between the USFS and DOI that identifies UAS use, products to be delivered and payment authorities.
- A qualified UAS operator is conducting the mission.
- An operating plan is developed.
- A Project Aviation Safety Plan has been developed and signed by the local line officer.

UAS Contracted for Agency Use

UAS may be contracted to perform agency missions (forest health, mapping, surveys, incident use, etc.). UAS are considered aircraft and currently must be contracted through the Aviation Acquisition Branch in Boise, ID. To begin the contracting process fill out the UAS Request Form in Appendix A and submit it to your Forest/Unit or Regional Aviation Officer.

University Use of UAS on NFS Lands

When a University (or other educational institution) proposes to conduct a UAS project over NFS lands:

- Insure there is an agreement in place between the University (or other education institution) and the Forest.
- They must have a COA in place or meet Part 107 requirements (remote pilot certificate and aircraft registration).
- Issue a letter (on a USFS formal letterhead) that provides local guidance on flight activities over the Forest (see template in Appendix C).

Chapter 4

Unauthorized UAS

Non-Wildland Fire

Contact local law enforcement, Forest/Unit aviation manager, line officer.

Non-Participating UAS Intrusion on Wildland fire

- **Identify** the intrusion
- **Communicate** the intrusion to aerial supervision, incoming/on-scene aircraft, ground personnel and dispatch.
- **Assess** the potential for a mid-air collision and the impact of the intrusion to incident operations.
- **Mitigate** the risk- consider the following:
 - Suspend air operations if the situation warrants.
 - Divert aircraft to alternate areas on the incident or another incident.
 - Hold aircraft at an alternate location and altitude.
 - Brief ground crews on any modification to air operations.
 - Request a TFR if one is not already in place.
- **Investigate** the intrusion.
 - Try to safely establish and maintain visual contact with the drone or the person operating it.
 - Coordinate with local law enforcement to establish contact with the drone operator.
- **Report.**
 - **Call the Forest/Unit Aviation Manager immediately.**
 - Dispatch or the Forest Aviation Manager reports to local Air Route Traffic Control Center using script in Appendix D
 - Incident personnel should file a [SAFECOM](#) and any other unusual occurrence reports required by their respective organizations. Be sure to clearly identify your mitigation to share the lessons learned and provide trending/tracking information.

Chapter 5

Law Enforcement References

This document provides Aviation and Safety Managers, Law Enforcement, Public Affairs and Leadership with a quick reference to some of the more useful laws and policies pertaining to UAS enforcement (not all laws/policies are identified; consult Agency and local law enforcement).

Existing law and penalties:

- 1) 36 CFR 261.3 (a) Interfering with a Forest Officer, volunteer, or human resource program enrollee or giving false report to a Forest officer.* The following are prohibited: (a) Threatening, resisting, intimidating, or interfering with any forest officer engaged in or on account of the performance of his official duties in the protection, improvement, or administration of the National Forest System (NFS) is prohibited.

* Forest officer means an employee of the FS (36 CFR 261.2); interfering is prohibited (36 CFR 261.3). Applicable inside as well as outside of Temporary Flight Restriction (TFR) and primarily enforceable on FS Lands. Violation is a class B misdemeanor with penalties of up to \$5,000 for an individual; \$10,000 for an organization and up to six months in jail.

- 2) 16 USC 1133 (c) prohibits motorized use in Wilderness. Several 36 CFR sections are also applicable within Wilderness or Primitive Areas: 261.18 (a) prohibits possessing or using motorized equipment; 261.21 (b) prohibits possessing or using a motor or motorized equipment in primitive areas.

General Prohibitions of 36 CFR applicable to NFS lands including Wilderness, Primitive Areas, General Forest: 261.4 (d) prohibits causing public inconvenience, or alarm by making unreasonably loud noise; 261.8 (a) prohibits molesting wildlife; 261.10 (d) (1) prohibits discharging a firearm or any other implement capable taking human life, causing injury or damaging property in or within 150 yards of a residence, building, campsite, developed recreation site or occupied area (2) across or on NFS road, water or adjacent thereto (3) into or within any cave; 261.10 (f) placing a vehicle or object in such a manner that it is an impediment or hazard to the safety or convenience of any person; and 261.10 (i) operating any noise-producing device (such as motor or engine) near a campsite, developed recreation site, or over an adjacent body of water without a permit in such a manner and at such time so as to unreasonably disturb any person.

- 3) 18 USC 32 (a) applies to destruction of any aircraft (civil and otherwise, anywhere US Airspace) and aircraft facilities but act must be determined to be willful. Threats with an apparent determination and will to execute are prohibited per 18 USC 32(c). FBI investigates incidents involving possible violations of Chapter 2 of Title 18. Whoever is convicted of any crime prohibited by this chapter, which has resulted in the death of any person, shall be subject also to the death penalty or to imprisonment for life.
- 4) 14 CFR 91.13 Careless or reckless operation. (a) Aircraft operations for the purpose of air navigation. No person may operate an aircraft in a careless or reckless manner so as to endanger the life or property of another.

*Reference actual CFRs for full regulatory text.

Chapter 6

Airspace De-confliction

Reference: Interagency Airspace Coordination Guide (<http://www.airspacecoordination.org/coord.shtml>)

Wildland Fire:

Due to the increasing number of recreational and commercial UAS, Dispatch centers should request a Temporary Flight Restriction whenever aircraft are responding to wildfires.

UAS intrusions over wildland fire shall be reported to the Forest/Unit Aviation Officer immediately. The Aviation Officer or Dispatch Center shall call the local ARTCC to report the intrusion.

De-conflict airspace whenever aircraft are in which UAS flights will occur prior to launch. The following components are standard items to check regardless of the type of aviation activity:

- Complete Deconfliction Form (see suggested format on next page)
- Complete the header information which contains Incident/Project name
- Aircraft = Registration number and UAS make and model and phone number of operator or project lead
- Dispatcher = Your Name
- Air to Air Frequency = A-A frequency for the Incident/Project (If applicable)
- Operating Elevation = Bottom – Top (or 5000'+)
- Lat/Long = Degrees decimal minutes (WGS 84)
- TFR = If NO – enter NO or N/A. If YES, enter the NOTAM # for the TFR
- Determine the affected MTRs/MOAs = Document the routes, and are they Hot? Y / N based on de-confliction phone calls to the affected controlling centers.
- The Primary contacts for MTRs/MOAs are bolded. If no answer, call the other numbers in the order listed from top/bottom. On weekends, certain offices may or may not be open

- Contact each affect MTR/MOA office. Document the conversation in Comments. Be sure to get the name of the person you spoke with.
- Relay the De-confliction information to the appropriate contacts (SEMG, ATBM, ATGS, UASM, Project Lead, UAS Operator)

Example: De-confliction

1. Boss Ranch Fire / Chiricahua Mountains
2. 31 34.0 x 109 21.7
3. No TFR
4. Operating Elevation - Up to 8000'
5. VR-263 G-H / No scheduled activity
6. Tombstone MOA = No scheduled activity
7. De-confliction completed
8. Assigned A/C: 1 Fixed Wing + 1 Rotor Wing assigned
9. Goat Well UAS / Solomon AZ
10. 32 42.4 x 109 32.9
11. No TFR
12. Operating Elevation - 1200' AGL
13. VR-263 B-C / No scheduled activity
14. Jackal MOA / Active
15. Morenci MOA / No scheduled activity
16. De-confliction completed
17. UAS activity

Chapter 7

UAS Scenarios

Scenario #1

A company, who has a contract with the agency to conduct a wildlife survey on the agency's land, wants to use a recreational/personal UAS to gather data on the site to accomplish the contract.

Outcome –

This does not meet the definition of Recreational Purpose and therefore the operation cannot be conducted under FAA recreational UAS standards. Call Forest Aviation Officer.

Scenario #2

An agency employee has a personally owned UAS which they want to use in their job. They do not want payment or reimbursement for the use of their UAS.

Outcome –

This does not meet the definition of Recreational Purpose and therefore the operation cannot be conducted under FAA recreational UAS standards. Call the Forest Aviation Officer.

Scenario #3

An agency employee needs to conduct an aerial inspection for agency use. A Cooperator UAS is available.

Outcome-

Complete UAS Mission Request Form.

Forest Aviation Officer reviews form and requests mission to Regional Aviation Officer

MOU or IAA in place that includes UAS. If no MOU, then plan on 3-6 months for MOU development.

Regional Aviation Officer works with Cooperator and begins to assist the user with the planning process.

Forest Service employees will not conduct UAS operations until requests are approved by line management and regional aviation management, and there is an approved PASP.

Cooperator aircraft and operators owned or contracted by DOI must be inspected and approved by DOI.

Scenario #4

An incident commander is approached by a UAS operator offering to use a UAS to gather fire information. The information may be useful in managing the fire.

Outcome –

- Personally owned UAS or model aircraft **may not** be used by federal agencies or their employees for interagency fire use.
- An emergency COA can only be issued by the FAA if the agency already has an existing COA for their aircraft.
- The request must be accompanied with a justification that no other aircraft exist for the mission and that there is eminent potential for loss of life, property, or critical infrastructure, or is critical for the safety of personnel.
- Cooperators, pilot associations and volunteer aviation groups or individuals may offer to fly unmanned aviation missions (i.e. aerial surveys, fire reconnaissance, infrared missions, etc.) at no charge to the IMTs. Although these offers seem very attractive, we cannot accept these services unless they meet FAA, USFS and/or DOI policy.
-

Interagency Fire use of UAS: Reference *Interagency Standards for Fire and Fire Aviation Operations*, chapter 16 for protocols regarding utilization of UAS on federal wildfire: http://www.nifc.gov/policies/pol_ref_redbook.html

Appendices

Appendix A

UAS Request Form

Appendix B

Special Use Permits/Special Uses Requiring an Authorization

Appendix C

Sample Approval Letter to University for UAS Research on NFS Lands

Appendix D

Reporting Script for UAS Intrusions on Wildfires

Appendix A

U.S. Forest Service Unmanned Aircraft System (UAS) Request Form

This form documents essential information to be considered for review and approval of planned UAS missions conducted and/or contracted by the Forest Service. **Note: A completed project aviation safety plan (PASP) and risk assessment are required to accompany this form.**

Administrative Information

Requestor Name:	
Title:	
District/Forest/Region or Research Station:	
Email:	
Phone number(s):	
Forest Aviation Officer Name:	
Forest Supervisor Name or Research Station Director Name:	
Regional Aviation Officer Name:	

Initial Mission Information

	Yes	No
Will the mission be flown within 5 nautical miles of an airport?		
Will the mission be flown over an urban or relatively dense populated area?		
Will a manned aircraft be flown at the same time as the UAS as part of this mission?		
Will the mission be flown beyond the line of sight (BVLOS) of the UAS operator?		
Does the UAS weigh more than 55 lbs.?		

If the answer to any of the above is “yes”, then a manned aircraft will be required to conduct this mission. Please coordinate with your Regional Aviation Officer.

Flight Justification

<p>Provide documentation describing why this mission can't be done <u>without</u> aviation support Explanation:</p>
--

Planning and Mission Specific Information

	Yes	No
Is there a management code or agreement in place to pay for the mission?		
Have you contacted your Unit/Forest Aviation Officer with the specifics of your operation?		
Is there an Operations Plan in place? If you answer “Yes” provide the plan with this document. If “No” provide the name of the person(s) that will be responsible for writing the plan:		
Specially qualified aviation personnel needed ? IE.UASM, HMGB, HECM ? Identify what positions		
Specially qualified contracting personnel ?(i.e. Contracting Officers Representative)		
Do you have a clearly defined project lead? Provide project lead’s name and position title:		
Will this affect interagency cooperators/partners? If yes, explain in what scope? Have they been contacted?		
Will this affect other permittee’s? In what scope? Have they been contacted? Explain:		

Does this mission require NEPA or any other public involvement? If you answered "Yes" provide information regarding the timeline for NEPA completion:		
Does the scope of the mission necessitate having a Public Affairs contact?		

Project Area Information

Note: Other relevant technical information regarding the project and mission will be documented in the PASP.

Project Location: (i.e. Horse Creek drainage, Jackson District, Smoky National Forest) *Attach project map as an Appendix to this document. Utilize WGS 84 for GPS Datum*
Identify Military Training Routes (MTRs) and Military Operational Areas (MOAs) within 5 miles of the project area (include route numbers).
Will the mission take place in or near a Wilderness Area or other type of Special Designated Area (SDA)?
Project Description: (i.e. survey flood damage in the Horse Creek drainage from the campground to the paved road)

Sensor Requirements

	Yes	No	Comments (fixed or gimbal mounted, nadir or off-nadir imagery, near real-time availability requirements, etc.)
Electro-optical (EO)/Infrared (IR) Video			

Visible/RGB Camera (visible)			
Multispectral Camera (visible and near infrared)			
Hyperspectral Camera (visible, near infrared and shortwave infrared)			
Thermal Infrared Camera			
Lidar			
Synthetic Aperture Radar			
Meteorology Sensors (temperature, humidity, barometric pressure, wind)			
Chemical/Air Quality Sensors (CO, CO2, O3, NO2, VOCs, etc.)			
Other			

Records Management

Imagery/data collected using UAS and derived products are legally considered agency records. Please specify the planned method to be used to retain these records:

THIS SECTION TO BE COMPLETED BY THE LINE OFFICER

Requested flight is:

APPROVED

DISAPPROVED

MODIFIED

Comments:

Line Officer Signature

Date

Signatures and Concurrence

Signature of Preparer

Date

Signature of Aviation Officer

Date

Signature of Approver

Date

APPENDIX B

Special Use Permits

§ Excerpt of 36 CFR 251.50 Land Uses; Special Uses Requiring an Authorization:

(a) All uses of National Forest System lands, improvements, and resources, except those authorized by the regulations governing sharing use of roads (§ 212.9); grazing and livestock use (part 222); the sale and disposal of timber and special forest products, such as greens, mushrooms, and medicinal plants (part 223); and minerals (part 228) are designated “special uses.” Before conducting a special use, individuals or entities must submit a proposal to the authorized officer and must obtain a special use authorization from the authorized officer, unless that requirement is waived by paragraphs (c) through (e)(3) of this section.

(b) Nothing in this section prohibits the temporary occupancy of National Forest System lands without a special use authorization when necessary for the protection of life and property in emergencies, if a special use authorization is applied for and obtained at the earliest opportunity, unless waived pursuant to paragraphs (c) through (e)(3) of this section. The authorized officer may, pursuant to § 251.56 of this subpart, impose in that authorization such terms and conditions as are deemed necessary or appropriate and may require changes to the temporary occupancy to conform to those terms and conditions. Those temporarily occupying National Forest System lands without a special use authorization assume liability, and must indemnify the United States, for all injury, loss, or damage arising in connection with the temporary occupancy.

(c) A special use authorization **is not required** for noncommercial recreational activities, such as camping, picnicking, hiking, fishing, boating, hunting, and horseback riding, or for noncommercial activities involving the expression of views, such as assemblies, meetings, demonstrations, and parades, **unless**:

(1) The proposed use is a noncommercial group use as defined in § 251.51 of this subpart;

(2) The proposed use is still photography as defined in § 251.51 of this subpart; or

(3) Authorization of that use is required by an order issued under § 261.50 or by a regulation issued under § 261.70 of this chapter.

(d) Travel on any National Forest System road shall comply with all Federal and State laws governing the road to be used and does not require a special use authorization, unless:

(1) The travel is for the purpose of engaging in a noncommercial group use, outfitting or guiding, a recreation event, commercial filming, or still photography, as defined in § 251.51 of this subpart, or for a landowner's ingress or egress across National Forest System lands that requires travel on a National Forest System road that is not authorized for general public use under § 251.110(d) of this part; or

(2) Authorization of that use is required by an order issued under § 261.50 or by a regulation issued under § 261.70 of this chapter.

(e) For proposed uses other than a noncommercial group use, a special use authorization is not required if, based upon review of a proposal, the authorized officer determines that the proposed use has one or more of the following characteristics:

(1) The proposed use will have such nominal effects on National Forest System lands, resources, or programs that it is not necessary to establish terms and conditions in a special use authorization to protect National Forest System lands and resources or to avoid conflict with National Forest System programs or operations;

(2) The proposed use is regulated by a State agency or another Federal agency in a manner that is adequate to protect National Forest System lands and resources and to avoid conflict with National Forest System programs or operations; or

(3) The proposed use is not situated in a congressionally designated wilderness area, and is a routine operation or maintenance activity within the scope of a statutory right-of-way for a highway pursuant to R.S. 2477 (43 U.S.C. 932, repealed Oct. 21, 1976) or for a ditch or canal pursuant to R.S. 2339 (43 U.S.C. 661, as amended), or the proposed use is a routine operation or maintenance activity within the express scope of a documented linear right-of-way.

Appendix C

Suggested template for issuing approval to Universities (or other educational institutions) to fly UAS on NFS Lands. **Note:** A formal USFS letterhead is required for issuing letters to entities other than USFS.

From: XXX, Aviation Officer

To: University

Subject: **APPROVAL FOR USE OF UNMANNED AIRCRAFT SYSTEMS**

This letter is your approval to utilize the following areas for UAS operations during (enter dates here):

Geographic location here, Lat/Long:

All approved areas on the forest are to be used at your own risk while adhering to all FAA rules and regulations for UAS operations. No aviation activities are authorized (written, verbal or implied. **Notification to the Forest Interagency Aviation Officer at least 24 hours prior to operations is required** to help de-conflict airspace with fire aircraft and other forest aviation assets. Include in your notification:

- Date and time of flight
- A copy of your COA or 333 Exemption or Remote Pilot Certificate and Aircraft Registration
- Names and contact information of pilots
- Make and model of UAS
- Notice to Airman information (if using 333 Exemption)

The following criteria must be agreed upon prior to UAS flights:

1. No launching or recovering of UAS in Wilderness areas
2. No launching or recovering of UAS within 100 meters (328 feet) from wildlife
3. Do not approach animals or birds with the UAS
4. Any wildlife incursions (in the air or on the ground) will be reported to the forest immediately
5. Obey all privacy laws
6. Notification at least 24hours prior to operations will be provided to the Aviation Officer
7. The UAS operator will advise the Aviation Officer of the completion of flights

Signature of Forest/Unit Aviation Officer

Appendix D

Script for Reporting a UAS situation to the FAA's ARTCC

Place call as soon as possible to the appropriate Air Route Traffic Control Center (ARTCC) to the Area Managers Desk. See phone numbers below.

Reporting Party: _____

Name/phone number: _____

Date/Time of UAS Situation: _____

General Information

- This is _____ (name) from _____ (agency).
- We are currently responding to a wildfire in the _____ (Geographic location).
- This situation has occurred at _____
(description of location such as 23 miles NW of Placerville airport or within the TFR.)
- I would like to officially report an Unmanned Aircraft (drone) situation. (use the word "intrusion" if there is a TFR.)

Drone information

- There are _____ (provide the number of known drones) flying a _____ (altitude if known) _____ direction of flight (if known).
- The drone(s) is a _____ (describe color, size and if it is a fixed wing, quad copter, etc).

Law Enforcement Information

We have/have not notified Law Enforcement.

- (Name of Law Enforcement such as Highway Patrol, BLM LE, USFS LE, Sherriff's Department, etc.)
_____ is responding.

Operator information

- We have/have not located the operator (or) Law Enforcement has located the operator and is talking to them.
- We are/are not grounding our aircraft (or) we have grounded our fixed wing aircraft.

TFR information

- There is (or is not) a TFR. The TFR number is 5/xxxx.
- Please report this on the Defense Event Network (DEN).
- If needed – here is the latitude and longitude _____.

- My phone number is and my e-mail is _____:

Reporting documentation

Date/time call made to ARTCC _____

Person reported to: _____

Agency Point of contact for follow-up questions: _____

ARTCC WATCH Desk Phone numbers:

Albuquerque	505-856-4500
Denver	303-651-4248
Ft Worth	817-858-7503
LA Center	661-265-8205
Salt Lake	801-320-2560

FAA UAS References and Resources

FAA Unmanned Aircraft Systems (UAS) Frequently Asked Questions/Help

<https://www.faa.gov/uas/faqs/>

FAA UAS Regulations & Policies

https://www.faa.gov/uas/resources/uas_regulations_policy/

FAA Law Enforcement Reference Card

https://www.faa.gov/uas/resources/law_enforcement/media/FAA_UAS-DRONE-LE_reference_card.pdf

Public Affairs USFS References and Resources

http://www.nifc.gov/PIO_bb/pio_corner.html

USFS UAS Advisory Group

<http://www.fs.fed.us/science-technology/fire/unmanned-aircraft-systems>

Frequently Asked Questions

Flying for Work or Business (non-recreational)

1. **How do I fly a UAS for work or business purposes?**

There are three ways to fly a UAS for work, business, or non-recreational reasons:

- Following the requirements in the Small UAS rule ([Part 107](#))
- Following the rules in your Section 333 grant of exemption
- Obtain an airworthiness certificate for the aircraft

2. **Can news media fly a UAS to shoot stories or cover breaking news?**

Media companies may use a UAS, but must adhere to the requirements of their Section 333 grant of exemption or the Small UAS Rule (Part 107). Organizations may

3. **What options do I have if my operation is not permitted under these rules (Part 107)?**

If you are operating an unmanned aircraft that weighs less than 55 pounds, generally you may apply for a Part 107 waiver (special permission) to conduct your operation. Your waiver application must outline how you intend to safely conduct your proposed operation, including any additional risk mitigation strategies you may use. An online portal will be available through www.faa.gov/uas for UAS operators to apply [for waivers to applicable parts of the rule](#). Get more information in the FAQ section on [Permissions, Authorizations, Waivers, and Exemptions](#).

4. **Does the new Small UAS Rule (part 107) apply to recreational UAS operations?**

Part 107 does not apply to UAS flown strictly for fun (hobby or recreational purposes) as long as these unmanned aircraft are flown in accordance with the [Special Rule for Model Aircraft](#) (Section 336 of P.L. 112-95). Visit our ["Fly for Fun"](#) webpage for safety rules and guidelines that apply to recreational UAS operations. The small UAS rule codifies the provisions of section 336 in part 101 of the FAA's regulations, which will prohibit operating a UAS in manner that endangers the safety of the national airspace system.

5. **Do I have to notify all airports within five miles of where I want to fly recreationally?**

Yes, you must contact any airports (including heliports and sea-based airports) and air traffic control towers within five miles of your proposed area of operations if flying under the Special Rule for Model Aircraft (Public Law 112-95, Section 336).

6. **Can an airport operator object to model aircraft flights near an airport?**

Yes, an airport operator can object to the proposed use of a model aircraft within five miles of an airport if the proposed activity would endanger the safety of the airspace. However, the airport operator cannot prohibit or prevent the model aircraft operator from operating within five miles of the airport. Unsafe flying in spite of the objection of an airport operator may be evidence that the operator was endangering the safety of the National Airspace System. Additionally, the UAS operator must comply with any applicable airspace requirements.

Feed Back Form

The intent is to make this a living document with frequent updates to meet end user's needs. To accomplish this, any comments, corrections or additions need to be reported to update the document. This comment form will be the preferred method. Updates to the document will include version number on the cover page and a date. The most current version will be posted on the SWCC website under the Aviation tab.

Fill out this form and email to kdamsgaard@fs.fed.us.

Unmanned Aerial Systems

COMMENT FORM

Forest/ Station/ Unit: _____

Point of Contact (Name/ Phone/
Email) _____

Page #	Para/ Sentence	Comment	Recommended Solution Language <i>(Comments will be rejected unless solution language is proposed)</i>	Action Taken <i>(used by WO Only)</i>

