PETRIFIED FOREST

NATIONAL PARK

AVIATION PLAN

Submitted by:

6/23/2015
Chief Ranger Date

Approved by:

6/23/15
Superintendent Date

I. Introduction/Purpose

A. NPS Policy

All aviation activities will be conducted in accordance with DO and RM 60: National Park Service (NPS) Aviation Management, IMR policy and all applicable Federal Aviation Administration (FAA), Office of Aviation Services (OAS), and Department of the Interior (DOI) policies.

B. Compliance with Park Legislative Mandates

Aviation use by Petrified Forest National Park is infrequent, typically consisting of less than 5 missions per year. Use of aircraft is limited to cooperatively operated aircraft, aircraft contracted through an Aircraft Rental Agreement (ARA). Aircraft use operations include park and fire management, search and rescue, emergency medical services and transportation, and resource management and protection. Flights may occur at any time of year in high desert plateau/mesa terrain ranging from approximately 5000 to 7,000 feet above sea level.

Every attempt will be made to minimize the impact of aircraft use on wildlife, natural quiet, visual values, wilderness values, cultural scenes, and visitor enjoyment. Development of specific mission planning must consider these potential impacts and the use of aircraft may be deemed inappropriate in which case other means of access or transportation will be utilized. All aviation use in Petrified Forest National Park should support and enhance the values contained in the park's mission statement (see General Management Plan documents).

C. Park Aviation Policy

The purpose of the Aviation Management Plan (AMP) is to establish general guidelines for official aircraft use within Petrified Forest National Park and builds on departmental aviation policy (D.M. 350-354, DO and RM 60, and IMR aviation policy). The AMP provides specific direction for individuals involved in the use of aircraft in the performance of their duties. The AMP ensures for personnel safety, protection of park resources, compliance with the NPS mission, efficiency, economy, and effectiveness of aircraft use.

This document applies only to those aircraft and personnel under NPS operational control and is not meant to apply to private, commercial, other federal, state, or local agencies aviation use within the boundaries or airspace of Petrified Forest National Park, except for the downed aircraft notification section - see attachment A

It is the intent of this policy to reduce aircraft use to the minimum necessary to accomplish operational duties and minimize impacts to natural resources and visitors.

- Petrified Forest National Park's (PEFO) use of aircraft will be limited to flights necessary for fire management, search and rescue, law enforcement, life or health threatening emergencies, research, resource management, and for individually approved special purpose missions.

- Planned aviation use will be reviewed and approved by the Park Aviation Manager (PAM). The PAM will receive, review and make a determination of all non-emergency flight missions and notify the project manager or requesting official of the go/no go decision and recommend alternatives if required.

- Flights in wilderness are prohibited except for emergency purposes and for management of wilderness in cases where aircraft use clearly meets the "minimum tool" concept for reducing impacts to park resources. **The Superintendent must approve all non-emergency aviation use in wilderness.**

II. Program Management

A. Organization and Responsibility

The Superintendent is the responsible official for the Aviation Management Program at Petrified Forest National Park with authority delegated to the Aviation Management Officer. The Superintendent will insure that an aviation management program is adequately planned, documented and implemented, and that the AMP is reviewed annually and revised as necessary.

The park will train and maintain currency for one PAM who will schedule aircraft for use and assure that aircraft are utilized in accordance with DOI and NPS policies and guidelines. The PAM will be a collateral duty of the Chief Ranger unless otherwise delegated by the Superintendent.

Park Aviation Manager: Responsible for operational management of the aviation program. This includes:

1. Develops, implements, and maintains the AMP, pre-accident plan, and aircraft hazard maps for the park.
2. Obtains and manages aircraft services to accomplish specific projects in the park. If services will result in cost to the Park, the PAM will notify the Contracting Officer.
3. Assures that the aviation program complies with applicable regulations, policies, and guidelines.
4. Implements a formal method to authorize, pre-plan, schedule, dispatch, flight-follow, and terminate aviation services within the park.
5. Develops and schedules park aviation safety and training programs to meet OAS requirements and maintains records of staff training and certification.
6. Participates in aviation accident /incident investigations.

7. Assures that proper forms are completed (as needed) to support the park aviation program, including, but not limited to:
    - Aircraft Flight Request/Schedule (RM-60, appendix 4)
    - Project Aviation Safety Plan (RM-60, appendix 3)
    - Interagency Aviation Mishap Response Guide (PEFO AMP attachment A)
    - Safety Communiqué Form (PEFO AMP attachment B)
8. Ensures that appropriate forms are available for the operation.
9. Assures that the pilot and aircraft are appropriate and approved for the mission, that they meet OAS requirements, and that emergency equipment necessary is available.

B. Qualifications/Training Needed to Manage Program

RM-60, OPM-04 and the Interagency Aviation Training Guide set requirements for required aviation training. In general, aircrew members require A-100 (Basic Aviation Safety) and A-200 (Mishap Review), with a three year currency requirement. Supervisors of those who regularly act as aircrew members require M-3 (Aviation Management for Supervisors) and A-200, also with a three year currency requirement.

C. Dispatching and Controlling Flights

1. Routine Flights

Requests for aircraft services will be coordinated by the PAM. Requests should be made using the Aircraft Flight Request/Schedule form, which is appendix 4 in RM 60.

Planned aviation use will be reviewed and approved by the PAM. This officer will receive and review the request and make a go/no go determination on all non-emergency flight missions. They will notify the project manager/requesting official of the go/no go decision and recommend alternatives if required. Upon approval of the flight, the PAM and Project Manager/Requesting Official will develop a flight plan. In most cases for uncomplicated flight missions the Aircraft Flight Request/Schedule Form (RM 60, appendix 4) will be the flight plan. The PAM will make arrangements with a contractor to provide the aircraft, or a local NPS area to have them supply the aircraft for the mission.

2. Non-Routine (Emergency) Flights

All requests for aircraft use on an emergency incident of any kind (SAR, EMS, fire, LE, or Administrative) will originate with the Incident Commander and be placed with park dispatch. Dispatch will work closely with the PAM to make flight arrangements.

D. Records and Reports

- The Requesting Official/Project Manager will complete section one of the Aircraft Flight Request/Schedule form (RM-60, appendix 4), and a DI-1, and forward both to the PAM.

- The PAM will review the Flight Request form for accuracy, and complete a Project Aviation Safety Plan for the flight. All forms will then be submitted to the pilot.

- The initial Flight Request form will serve as the primary record for the aviation use. This request, once the mission is complete, will be filed and maintained by the PAM. All flight plans will be attached to the Flight Request in cases where the form is not sufficient to serve as the flight plan.

- SAFECOM (AMD-34) reports will be used to report any aircraft incidents, hazards, or maintenance deficiencies. The report forms are available on the Internet at www.safecom.gov and can be completed and submitted online. A copy of the form is included in this plan as Attachment B.

- The Interagency Aviation Mishap Response Guide and Checklist is included in this plan as Attachment A.

III. Aviation Operations

A. Aircraft Safety

1. Aircraft Data Cards

All pilots will meet the requirements of the appropriate Departmental Manual. They shall meet all DOI criteria for flight authorization, licenses, medical qualifications, OAS carding, currency, flight check, pre-flight and flight operations requirements listed in the Departmental Manual (351 DM 1) for the flying activities they will perform. Responsible park personnel will confirm that both the pilot and aircraft have been carded by OAS prior to any flight activity.

2. Personal Protective Equipment

Whenever flying on Special Use missions or otherwise required by the pilot, Personal Protective Equipment (PPE) shall be worn by Petrified Forest National Park personnel. Flight helmets, Nomex flight suits, Nomex or leather gloves, and above-ankle leather boots shall be worn during these types of operations. It is recommended that cotton socks and underwear be worn under the Nomex to provide additional burn protection. PPE is not required for those passengers flying point-to point or non-Special Use flights. Refer to the Aviation Life Support Equipment (ALSE) Handbook for more information.

3. Flight Manifest

A written manifest consisting of all crew members and passengers onboard each flight shall be prepared, with a copy left at the point of departure, or preferably with the PAM. The manifest will minimally include the names and weights of passengers, weight of cargo, the date and pilot's name. Any of a variety of available manifest forms is acceptable. Changes to the manifest will be left at subsequent points of departure.

4. Load Calculations

Load calculations/weight and balance will be accomplished prior to each flight (other than those provided by commercial airlines) by the Pilot in Command. These calculations will consider weight of cargo and passengers, center of gravity, etc., relative to environmental conditions and performance capabilities of the aircraft. For helicopters, refer to Interagency Helicopter Operations Guide (IHOG) Chapter 7.

5. Flight Plans/Flight Following

The Aircraft Flight Request form (RM-60, appendix 4) will be used in most cases as the Flight Plan.

Flight following is mandatory during all Park aviation operations. Non-emergency flight following will be identified in the flight plan with the dispatch center tracking the aircraft. Park dispatch will insure that the aircraft has the capability to maintain contact with the flight follower on park frequencies. If at any time the flight follower is unable to maintain contact with the aircraft, the mission will be shut down until communications are re-established.

6. Communications

All communications for non-military/contract flights (flight following, etc.) will be conducted on a pre-arranged frequency between the designated dispatch office and the ordered aircraft.

7. Pilot Authority

The pilot of the aircraft will have the final say as to whether any aspect of the flight operation can be safely performed. The PAM also has the discretion of vetoing a trip or specific task if it becomes obvious that the mission cannot be successfully or safely completed. All passengers have the choice of not flying if they feel it is unsafe to do so.

8. Pilot Duty Limitations

351 DM 3 limitations will be adhered to except in cases of extreme emergency; contact the Regional Aviation Manager (RAM) if unusual situations may require extensions.

9. Low Level Flights

Flights will be performed in accordance with OAS DM's and OPM's as well as the FAR's. (351 DM 1.7A). Non-mission passengers shall not be permitted on Special Use flights. Only essential personnel who have completed required safety training and who are needed to accomplish the flight supported mission will be onboard during Special Use flights. Pilot and observers are required to wear personal protective equipment (PPE) consisting of flight helmet, Nomex suit, Nomex or leather gloves, and above-ankle leather boots during the Special Use phases of such flights. PPE is not required during the non-Special Use phases of such flights. For example, fixed wing air attack supervision or fire detection flights may involve point to point phases that are not Special Use and do not require the PPE. But any phase of the flight that is conducted below 500 feet AGL or in or near canyons is Special Use and requires PPE. Helicopter flights to unprepared landing spots are Special Use flights and require completion of the appropriate safety training and use of PPE.

10. Transporting Hazardous Material

Transport is allowed in accordance with the exemption granted by DOI by the Department of Transportation, provided activities are conducted as stipulated in the Aviation Transport of Hazardous Materials Handbook. A current copy of that exemption and the handbook must be in the aircraft NOTES: 1. All involved employees must have completed the mandatory HazMat training. 2. Written notification to the pilot of the carriage of HazMat is required. 3. Incapacitating aerosol such as pepper spray, mace, etc. may be carried internally in an aircraft only if it is secured in a sealed non-porous container (i.e. ammo can).

Defensive aerosols carried by law enforcement officers may be carried in a duty belt or similar protective device when not contained within an outer container. Additional hazard communication marking is not required in this instance.

11. Smoking

Smoking in or within one hundred (100) feet of any aircraft (shut down or operating) is strictly prohibited. Smoking by in-flight passengers/crew is also prohibited.

12. Fuel reserves

Aircraft must maintain fuel reserves as stipulated in FAR 91.151 and FAR 91.167.

13. Transportation of Dogs and Other Pets

Transportation will be done in accordance with any applicable AMD regulations or as emergency situations dictate (as SAR operations with dog-handler teams being deployed during a search; all dogs will be leashed and secured to a hard point while in the aircraft). Owners or attendants are responsible for removing litter/waste from the aircraft after such transports. Refer to the "Interagency Helicopter Operations Guide" (IHOG) for additional information.

14. Pilot Briefings

All new contract / rental pilots will be briefed as soon as possible after the contract is activated. This briefing will cover local communication systems (FAA and other commonly agreed-upon frequencies and procedures), navigation aids, flight hazards, legal descriptions, prominent landmarks, payment procedures and administrative duties, (record keeping, maintenance scheduling, etc.), safety and emergency procedures (emergency fields / helispots and emergency equipment available, and dispatching flights). Daily briefings for experienced pilots can consist simply of the day's weather, known flight hazards and flights known at that time. A full briefing is required prior to the first flight of any project or incident.

15. Flight Hazard Maps

Flight hazard maps of the entire park will be maintained by the PAM, and provided to any Helicopter Manager / Chief of Party as part of their flight use packet. Maps will identify all wire and flight hazards, areas to avoid in flight, as well as approved landing zones. Briefing for pilots new to the area will use these maps to locate hazards and areas to avoid.

16. Authorized Passengers, Cargo and Flights

Only personnel who have an official purpose or are essential to the execution of a particular mission may participate in any flight within Petrified Forest National Park. Any Senior Executive Series (SES) personnel should be coordinated through the RAM and must be specifically approved by the Department Solicitor prior to any flight. These passengers must be documented and records forwarded to the Intermountain RAM.

17. Flight Restrictions and Noise Impact Mitigation

Before a mission begins, the pilot will be informed of any flight-restricted zones (i.e., campgrounds, congested parking areas, or residential areas, etc.). Furthermore, the pilot and/or the helicopter manager/chief of party have the right and responsibility to request a Temporary Flight Restriction (TFR) if it is deemed necessary for the safe and efficient completion of the mission.

18. Air Space Restrictions

The purpose of designating an area within which temporary flight restrictions apply is to prevent a hazardous congestion of nonessential aircraft over a forest fire, a disaster site, or other event which may generate a high degree of public interest. Temporary Flight Restrictions are described fully in FAR 91 Part 137(a).

B. Aviation Security

Security for aircraft and facilities will normally be supplied by PEFO Protection staff. If there is a need that staff cannot fulfill, the park will request outside resources from cooperating LE agencies or other NPS units.

IV. Specific Missions

On occasion the park coordinates with state enforcement agencies to conduct over-flights of park lands to check on recent disturbances to park and surrounding lands resources. The procedures outlined in this plan for non-emergency flight will apply to these missions.

V. Emergency Procedures

Aircraft working for Petrified Forest National Park will be considered overdue if the aircraft fails to report after: (1) the estimated time en route given by the pilot or attendant, (2) the ETA necessary for the mission, or (3) when radio contact has been broken with no re-contact for 30 minutes. Overdue aircraft will be reported immediately to the PAM, or designee, who will act as Incident Commander. The Visitor and Resource Protection Division, under direction of the Incident Commander, will initiate any search and rescue necessary. The PAM will contact FAA Flight Service Center to report overdue aircraft.

Incident, Hazard, and Deficiencies: When an aviation hazard, maintenance deficiency, or aircraft incident (minimal aircraft damage or minor injuries) is identified, the Aviation Management Officer will complete a SAFECOM (form AMD-34) for submittal to the OAS regional office within 5 working days.

Aircraft Accident: Initiate Interagency Aviation Mishap Response Guide and Checklist (Attachment A). The PAM will report all accidents to OAS at 1-888-464-7427and notify the RAM. A SAFECOM report (form AMD-34) will be completed after the accident and submitted within 5 working days.

VII. Review

The AMP will be reviewed annually by the Superintendent, Division Chiefs, Aviation Management Officer, and Safety Officer and revised as necessary.

ATTACHMENT A

Interagency Aviation Mishap Response Guide and Checklist

A Publication of the
National Wildfire
Coordinating Group

Interagency Aviation Mishap Response Guide and Checklist

PMS 503 January 2014
NFES 2659

Do not waste time trying to figure out if an event is an accident, that's not your job.
If you have an event with an aircraft that results in damage or injury no matter how slight.

REPORT IT to DOI or USFS by calling 1-888-464-7427 (888-4MISHAP).

Has 911/ Search and Rescue (SAR) been notified?

Notify your Bureau / Agency and follow their procedures
Bureau / Agency Point of Contact and phone number _____

Administrative Information

This is a generic aircraft mishap response guide and checklist. It is not intended to be all encompassing but to provide the minimum essential elements that apply to most aviation mishaps. **You must tailor this plan to your own organization, mission, and operational location.** A fill-able PDF can be found at Interagency Aviation Mishap Response Guide & Checklist or www.nwcg.gov/pms/pubs/pms503.pdf. It will serve you best when used in conjunction with the Agency Administrator's Guide to Critical Incident Management [available on www.nwcg.gov (PMS 926)].

All personnel involved in aviation operations should be familiar with the Aviation Mishap Response Guide and Checklist. **Ensure that your plan is up-to-date. It must be verified a minimum of annually AND prior to operations conducted in new locations**. When you review your Aviation Mishap Response Checklist, ensure that all of the points-of-contact listed and their respective phone numbers and e-mail addresses are still valid.

Change Symbols. Revised text is indicated by a black vertical bar in the right margin of the page, adjacent to the affected text. The change symbol identifies the addition of either new information, changed procedure, the correction of an error, or a rephrasing of the previous material. **Due to the number of changes, this is a complete revision and should be read in its entirety.**

Priority of Actions. As soon as you are aware of the accident, ***START A LOG OF ALL ACTIONS AND CALLS,*** then refer to the expanded subsections of this plan. The subsections are listed in order of priority.

a. **Protect people** (Tab A). Lifesaving operations takes first priority.
b. **Protect property** (Tab B). Property should be protected from unnecessary additional damage.
c. **Preserve evidence** (Tab C). Treat the area as if it were a crime scene. Provide 24-hour security until the investigation team arrives. Identify witnesses; get their addresses, phone numbers, and email.
d. **Notify and investigate** (Tab D). Report the accident using your organization's chain-of-command and policies. **Do not delay reporting** if detailed information is not immediately available.
e. **Recovery operations** (Tab E). Everything at the site is under the control of the NTSB until released.

Practice — The absolute best way to be prepared for the unexpected is to periodically practice your Aviation Mishap Response Plan. Coordinate in advance and get as many responders as possible to participate when you conduct a practice drill.

Update Record

Date of Review	Signature

Protecting People

a. Many times in the urgency to assist accident victims, the **rescuers may place themselves in jeopardy** and become victims themselves. **Enforce risk assessment and mitigation procedures.**

b. Ensure **ALL** crew and passengers involved in an aircraft accident are cleared by medical authority prior to returning to duty.

c. Aircraft wreckage attracts people like a magnet. Keep non-essential personnel well clear and preferably upwind.

d. **Hazards at an aircraft accident site** can include:

   1. **Biological Hazards** — Hepatitis B Virus (HBV), Human Immunodeficiency Virus (HIV), and many others. See OSHA's 29 CFR 1910.1030 for control measures.
   2. **Toxic Substances** — Fuel, oil, hydraulic fluid, and exotic aircraft materials such as beryllium, lithium, chromium, and mercury. You must also consider the cargo the aircraft was carrying (see the DOT Emergency Response Guide at http://phmsa.dot.gov/hazmat/library/erg)
   3. **Pressure Vessels** — Tires (often above 90 psi), hydraulic accumulators, oleo struts, oxygen cylinders, and fire extinguishers. They may look OK, but may have been damaged in the crash.
   4. **Mechanical Hazards** — Metal under tension (rotor blades bent under fuselage), heavy objects, composite materials, and innumerable sharp edges.
   5. **Fire Hazards** — Unburned fuel, hot metal (or other components), aircraft batteries, pyrotechnics, and the ignition of grass as a result of the accident. Be cautious of smoldering items which may re-ignite.
   6. **Environmental Hazards** — Weather, terrain, and animals (snakes, spiders, scorpions, etc.) Depending on the location and time of year, the environment may be among the most serious hazards at the scene.

e. **Utilize available protective devices and clothing.** Use extreme caution when working around the wreckage. Protective measures include:

   1. Minimize the number of personnel allowed to enter the accident site.
   2. Ensure exposed personnel use appropriate personal protective equipment (PPE) such as boots, long pants, long-sleeved shirts, leather gloves (use surgical gloves as inserts if blood or bodily fluids are present), and appropriate respirators if toxic vapors or composite material pose respiratory hazards.

f. Do whatever is necessary to extricate victims and to extinguish fires, but keep in mind the need to protect and preserve evidence. If any evidence must be disturbed in order to carry out rescues or fire suppression activities, **document and/or photograph their location.**

REMEMBER, it's already a bad day; don't make it worse by letting someone else get hurt!

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Protecting Property

> ***NTSB Sec. 831.12 Access to and release of wreckage, records, mail, and cargo.***
>
> a. *Only the Board's accident investigation personnel and persons authorized by the investigator-in-charge to participate in any particular investigation, examination or testing shall be permitted access to wreckage, records, mail, or cargo in the Board's custody.*
>
> b. *Wreckage, records, mail, and cargo in the Board's custody shall be released [to the DOI or USFS IIC] by an authorized representative of the Board when it is determined that the Board has no further need of such wreckage, mail, cargo, or records. When such material is released, Form 6120.15, "Release of Wreckage," will be completed, acknowledging receipt.*

Treat the accident site like a crime scene. Wreckage, cargo, and debris should not be disturbed or moved except to the extent necessary:

a. To remove victims.
b. To protect the wreckage from further damage.
c. To protect the public.

In addition to the authority explicit in NTSB 831.12, restricting access protects the public from the hazards of the accident site (Tab A).

Initially the accident site should be protected by either your own people (e.g. if the accident occurred at a fire) or by agency and local law enforcement officers. The investigation team may request extended security until the investigation is complete.

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Preserving Evidence

NTSB Sec. 830.10 Preservation of aircraft wreckage, mail, cargo, and records.

a. *The operator of an aircraft involved in an accident or incident for which notification must be given is responsible for preserving to the extent possible any aircraft wreckage, cargo, and mail aboard the aircraft, and all records, including all recording mediums of flight, maintenance, and voice recorders, pertaining to the operation and maintenance of the aircraft and to the airmen until the Board takes custody thereof or a release is granted pursuant to Sec. 831.12(b) of this chapter.*

b. *Prior to the time the Board or its authorized representative takes custody of aircraft wreckage, mail, or cargo, such wreckage, mail, or cargo may not be disturbed or moved except to the extent necessary:*
   1. *To remove persons injured or trapped;*
   2. *To protect the wreckage from further damage; or*
   3. *To protect the public from injury.*

c. *Where it is necessary to move aircraft wreckage, mail or cargo, sketches, descriptive notes, and photographs shall be made, if possible, of the original positions and condition of the wreckage and any significant impact marks.*

d. *The operator of an aircraft involved in an accident or incident shall retain all records, reports, internal documents, and memoranda dealing with the event, until authorized by the Board to the contrary.*

In addition to those items required by law (above) you should also:

Control access to the site by cordoning off the area and contacting the agency aviation safety investigator to determine who needs access. Request agency or local law enforcement to immediately secure the site for the accident investigation team. Establishing a pass system to identify authorized personnel is an excellent technique for serious accidents. Everyone who enters should be briefed on the known or suspected hazards and cautioned to avoid disturbing the evidence (flipping switches and souvenir hunting).

Photograph everything. Some evidence may be easily destroyed prior to the arrival of the accident investigators. Photograph aircraft, ground scars, and other perishable evidence. Collect copies of all photos and videos taken by witnesses, participants, and rescuers. **DO NOT DISTURB WRECKAGE.**

Identify witnesses. Request witnesses to write out their statements as soon as possible (before witnesses can compare notes). Be sure to **GET WITNESSES' NAMES, ADDRESSES, PHONE NUMBERS, AND EMAIL ADDRESSES**. Supervisors must ensure that personnel with information pertinent to the investigation are made available to the investigators in a timely manner. If possible, coordinate with the accident investigator(s) PRIOR to de-mobilizing personnel with information pertinent to the accident.

Secure equipment and records. Crew items, such as helmets, survival equipment (if used), notes, charts, etc. as well as dispatch logs and records, should be controlled and provided to the investigation team upon arrival.

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Notify and Investigate

If you see something…SAY SOMETHING!!

Do not try to "classify" events as accidents or incidents, that's the job of the National Transportation Safety Board (NTSB). If you have an event with an aircraft that results in damage or injury, **REPORT IT** to OAS or USFS.

Initial Notification. DOI's Office of Aviation Services (OAS) or the USDA-Forest Service (USFS) can be contacted by calling 1-888-464-7427 (**1-888-4MISHAP**). When you call, provide the information on the Aircraft Accident Checklist.

!! DO NOT DELAY the initial notification by trying to complete all of the blanks on the form. Call in the accident as soon as possible and call back as more information becomes available.

The OAS/USFS Investigator will review your procedures taken and advise you of any additional actions you should be taking, or reports you need to make. The OAS/USFS investigator will notify the NTSB as appropriate. Field personnel should **not** make initial notification to the FAA or the NTSB. If contacted by the FAA or the NTSB you should refer them to the OAS/ USFS Aviation Safety Office and answer those questions that you can.

!! If you have enough people you should conduct the notification process at the same time as you are conducting other aspects of the immediate response.

Investigation:

a. Aircraft **accidents** (fatality, serious injury, or substantial damage) will be investigated by NTSB personnel (Public Law 110-181). OAS/USFS personnel will be a "party" to the NTSB investigation. DOI DM 112 DM 12 delegates representation to the Office of Aviation Services (OAS) and assigns them with the responsibility to investigate Departmental aircraft mishaps regardless of NTSB involvement. The OAS IIC will present additional parties to the NTSB IIC if deemed necessary. Add USFS info.

b. Aircraft **Incidents-with-Potential** (IWP) will be investigated by Air Safety Investigators from OAS/USFS or a USFS Qualified Technical Investigator.

c. Aircraft **incidents** will require the local Aviation Manager or Aviation Safety Manager to investigate the event and report the facts and circumstances to OAS/USFS.

d. All aviation related events that impact aviation safety (for either DOI/USFS), shall be reported using the **SAFECOM** (https://www.safecom.gov) reporting system.

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Recovery Operations

> ***NTSB Sec. 831.12 Access to and release of wreckage, records, mail, and cargo.***
>
> a. *Only the Board's accident investigation personnel and persons authorized by the Investigator-In-Charge to participate in any particular investigation, examination or testing shall be permitted access to wreckage, records, mail, or cargo in the Board's custody.*
>
> b. *Wreckage, records, mail, and cargo in the Board's custody shall be released by an authorized representative of the Board when it is determined that the Board has no further need of such wreckage, mail, cargo, or records. When such material is released, Form 6120.15, "Release of Wreckage," will be completed, acknowledging receipt.*

If an accident is investigated by OAS/USFS investigators, they are responsible for notification of the NTSB and compliance with section 831.12 prior to releasing the wreckage.

Actual recovery (and the associated costs) is usually the responsibility of the aircraft owner. Before committing the Government to unnecessary costs, check with the appropriate Contracting Officer.

Use extreme caution when removing or recovering aircraft wreckage (Tab A). Salvage personnel are aware of hazards at accident sites and take appropriate precautions. Your people may not!

Release of wreckage from the NTSB will go to the OAS or USFS investigation team. They will release it to the contractor through the contracting officer.

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Anyone who has ever been involved in the immediate response to an aircraft accident will agree that the first few minutes and hours of a mishap event are chaotic. ***Developing and practicing your Aviation Mishap Response Plan <u>today</u> is your best defense against the chaos of tomorrow.*** *Time is an extremely critical factor and immediate positive action is necessary; any delay may affect someone's survival.*

Conduct of Aircraft Accident Investigations. **All** DOI and USFS aircraft accidents are investigated under the authority of the National Transportation Safety Board (NTSB) as defined in:

a. 49 Code of Federal Regulations (CFR) Parts 830 and 831

b. Public Law (PL) 110-181 and Federal Management Regulation (FMR) 102-33.185.

!! This means that regardless of severity, all aircraft accidents are the domain of the NTSB. If the NTSB elects to not visit the site and the field investigation is conducted by DOI or USDA-FS personnel, it is still an NTSB investigation and investigative efforts must comply with their rules and standards.

Tips and Techniques

a. **Who's in charge** — Although accident investigations are the responsibility of the NTSB and DOI/USFS, you need to determine in advance who will be responsible for the initial actions at the accident site

b. **Notification of Next-of-Kin** — See Agency Administrator's Guide to Critical Incident Management (PMS 926) (http://www.nwcg.gov/pms/pubs/pubs.htm) for guidance. As a minimum, all supervisors should have a plan on how to contact their employee's next-of-kin.

c. **Start a journal** — Write down everything regarding events, actions, points of contact (who, what, when, where, and why).

d. **Control of Records** — Under the provisions of NTSB Part 831.12 (Tab B) the records pertaining to the aircraft and the flight become a part of the investigation and "belong" to the NTSB until released. Gather and control the appropriate records until they can be turned over to the NTSB or DOI/USFS investigator. <u>Required records include (but are not limited to) aircraft operating and maintenance documents, crew records (flight and medical), flight plans, weather briefings, weight and balance forms, and load calculations</u>.

e. **Conduct after-action review (AAR)** — After the dust has settled and the professional investigators have taken charge, it is time to review what happened, what worked, and what needs to be improved. Conduct the AAR while issues and events are fresh in everyone's mind. Share your lessons learned with your Regional/Bureau/National Aviation and Safety Managers. Update your Aviation Mishap Response Plan with the lessons learned.

NOTE: NTSB policy prohibits Parties to an investigation (see Part 831.11 and .13) from discussing information about that accident without the specific approval of the NTSB Investigator-in-Charge (IIC), For questions on the proper release of information about an accident investigation contact the OAS/USFS Investigators.

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Definitions (See 49 CFR (NTSB) 830/831)

a. **Aircraft Accident** — an occurrence associated with the operation of an aircraft, which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage.

b. **Substantial Damage** — damage or failure which adversely affects the structural strength, performance, or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component. Engine failure or damage limited to an engine if only one engine fails or is damaged, bent fairings or cowling, dented skin, small punctured holes in the skin or fabric, ground damage to rotor or propeller blades, and damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wingtips are not considered "substantial damage" for the purpose of this part.

* **Incident-with-Potential (IWP)** - an incident that narrowly misses being an accident and in which the circumstances indicate significant potential for substantial damage or serious injury. The USFS Branch Chief, Aviation Safety Management Systems or the OAS Chief of Aviation Safety and Program Evaluations, will determine the final classification. (The concept "IWP" is unique to DOI/USFS.)

c. **Aircraft Incident** — an occurrence other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operations.

d. **Investigator-In-Charge** — the designated Investigator-In-Charge (IIC) organizes, conducts, controls, and manages the field phase of the investigation. The IIC has the responsibility and authority to supervise and coordinate all resources and activities of all personnel, both Board and non-Board, involved in the on-site investigation. The IIC continues to have considerable organizational and management responsibilities throughout later phases of the investigation, up to and including Board consideration and adoption of a report or brief of probable cause(s). Note: the NTSB determines probable cause(s); DOI / USFS determine contributing factors.

e. **Serious Injury** — any injury which:

1. Requires hospitalization for more than 48 hours, commencing within 7 days from the date the injury was received;
2. Results in a fracture of any bone (except simple fractures of fingers, toes, or nose);
3. Causes severe hemorrhages, nerve, muscle, or tendon damage;
4. Involves any internal organ; or
5. Involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.

!! 49 CFR Part 830.5 requires the NTSB be immediately notified whenever damage (including ground damage) occurs to main or tail rotor blades that requires major repair or replacement of the blades, whenever there is a runway incursion that requires immediate corrective action, and whenever an aircraft is overdue and believed to be involved in an accident. **Report any of these events immediately to DOI/USFS Aviation Managers by calling 1-888-464-7427 (888-4MISHAP).**

!! Managers will need to record employee injuries in their Department/Agency's Safety Reporting System, DOI: Safety Management Information System (SMIS)/ USFS: Safety Health Information Portal System (SHIPS).

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Media Relations

> ***NTSB Sec. 831.13 Flow and dissemination of accident or incident information.***
>
> a. *Release of information during the field investigation, particularly at the accident scene, shall be limited to factual developments, and* ***shall be made only through the Board Member present at the accident scene, the representative of the Board's Office of Public Affairs, or the Investigator-In-Charge.***
>
> b. *All information concerning the accident or incident obtained by any person or organization participating in the investigation shall be passed to the IIC through appropriate channels before being provided to any individual outside the investigation. Parties to the investigation may relay to their respective organizations information necessary for purposes of prevention or remedial action. However, no information concerning the accident or incident may be released to any person not a party representative to the investigation (including non-party representative employees of the party organization) before initial release by the Safety Board without prior consultation and approval of the IIC.*

When the field investigation is conducted by OAS/USFS investigators, they will comply with all applicable DOI/USDA and NTSB regulations by referring all media requests to the NTSB IIC, NTSB Field office, or the DOI/USFS IIC.

Tips and techniques when working with the media:

a. You can acknowledge an accident has occurred, but do not speculate on what caused it or release any names. Advise the media that the investigation of this accident is under the jurisdiction of the NTSB and any questions must be directed to them.

b. Don't aggravate the media and don't get aggravated by the media. They're just doing their job. Even aircraft accidents don't stay in the headlines forever, unless the reporter thinks you're hiding something.

c. Most reporters have prior experience at accident sites. Remind them of the hazards, to avoid disturbing the wreckage, and ask them to be respectful of the victims.

Media Relations

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OVERDUE AIRCRAFT

An aircraft is considered "overdue" when it fails to arrive within 30 minutes past the estimated time of arrival (ETA) and cannot be located.

Time	Action	Contact and Phone	Time Log
Immediately at time aircraft is due	Attempt to contact aircraft by radio or phone. If equipped, review Automated Flight Following data. Contact destination agency airbase or airport. Gather info required for Aircraft Accident Report.		
15 minutes past due	Contact originating or enroute agency dispatch. Contact originating or enroute agency airbase. Contact originating or enroute airports		
30 minutes past due	Contact vendor home base. Contact the FAA / Lockheed-Martin Flight Service Station and request an Alert Notice (ALNOT)	1 800 992-7433 (800 WX BRIEF) – Select "1" to speak to a briefer. Give the briefer the info and your contact info. The briefer will notify the "Hub" supervisor who will notify the FAA. Expect a return call for more info.	

MISSING AIRCRAFT

The aircraft is "missing" when the fuel duration, as reported on the request for flight following, or as reported on the FAA flight plan, has been exceeded and the aircraft location is unknown. It can also be considered missing when it has been reported to the FAA as being "overdue" and the FAA has completed an administrative search for the aircraft without success.

Anytime the fuel duration is exceeded or if an aircraft is missing/and an accident is suspected	Submit data from the Aircraft Accident Checklist to: FAA / Lockheed-Martin Flight Service Station and request an Alert Notice (ALNOT) or contact the FAA Regional Operations Center Notify OAS /USFS Aviation Safety Office Notify Local Aviation Manager	1 800 992-7433 (800 WX BRIEF) List of centers are on the reverse side 1 888 464-7427 (888-4MISHAP)**	

!! **Provide the information on the Aircraft Accident Checklist.** Do not delay notification if you do not have all the blocks filled. Provide as much information as you can and follow-up when additional info is available.

SEARCH AND RESCUE. Search and Rescue (SAR) operations should be coordinated through the FAA to the Air Force Rescue Coordination Center (AFRCC) console – (800-851-3051 / 850-283-5955) and with local law enforcement agencies. It is recommended that both the FAA and AFRCC be contacted to ensure optimum coordination. For additional information on SAR visit http://www.1af.acc.af.mil/ library/factsheets/factsheet.asp?id=7497.

Overdue and Missing Aircraft

FAA Regional 24-Hour Accident and Incident Response Centers

Alaskan Region	(907) 271-5936
Central Region	(816) 329-3000
Eastern Region	(718) 553-3100
Great Lakes Region	(847) 294-8400
New England Region	(781) 238-7011
Northwest Mountain Region	(425) 227-1389
Southern Region	(404) 305-5180
Southwest Region	(817) 222-5006
Western-Pacific Region	(310) 725-3300

Aircraft Accident Checklist

OAS/USFS **1-888-464-7427 (888-4MISHAP)**

Has 911/Search and Rescue (SAR) been notified?

(Do not delay initial report by trying to fill in all the blanks)

1. Point of Contact Information (the person who will provide information and direct actions)		
a. Name		c. Duty Position:
b. Phone Numbers		d. Address:
Work:	Cell:	
Fax:	Home:	e. E-mail:

2. Accident Information		
a. Aircraft Registration/Tail Number	Type of Aircraft	Color
b. Date and Time of Accident		
c. Location of Aircraft (Grid, Lat/Log, Reference to Known Point)		
d. Hazardous Materials Involved? (Explosives, Radioactive Materials, etc.)		
e. Accident Site Secured?	Photos Taken?	
f. **NTSB & DOI/USFS ONLY:** Flight Data Recorder Secured? (if applicable) Witnesses identified and statements requested?	ELT Deactivated?	
g. Total Number of Personnel Involved		
h.. Number of Fatalities	Number of Injuries	

3. Accident Description (type of mission, what happened, weather, extent of damage, etc.)

4. Admin Information	
a. Aircraft Owner	b. Operator
c. Pilot in Command	
d. Point of Last Departure	e. Destination
f. Route of Flight	g. Fuel on Board
h. Nearest Commercial Airport	i. Suitable Helicopter Landing Site
j. Other	

Aircraft Accident Checklist

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Emergency Contact Checklist

Notify OAS/USFS Aviation Safety Office using... 1-888-464-7427 (1 888 4MISHAP)
Notify your Bureau / Agency personnel (name) _____(phone)_____

Only contact the FAA or NTSB if you cannot contact your Bureau/Regional or OAS/USFS Aviation Safety Office
FAA Flight Service Station 1-800-992-7433 (1 800 WX BRIEF)

Update phone numbers, frequencies, and POCs quarterly and for each unique mission

1. Primary Response (Emergency Responders - **dial 911**, use discrete numbers as a back-up)
a. Fire Department
b. Police
c. Ambulance
d. Air Ambulance
e. Hospital
f.
2. Secondary Response (Support Personnel)
a. Flight Following — FAA Flight Service Station (1 800 992-7433)
b. – Dispatcher
c. OAS / USFS Aviation Safety Office (1-888-464-7427)
d. Photographer
e. HAZMAT Response Team
f. Coroner
g. Clergy
h. Explosive Ordnance Disposal (Military or Police)
i. Engineer / Recovery Specialists
j.
3. Agency Management and Other Agencies (as required)
a. Aviation Safety Manager
b. Aviation Manager
c. Public Affairs Officer
d. Military Base Operations
e. Federal Emergency Management Agency (FEMA)
f. Airport Operations
g. Aircraft Owner/Operator
h. Contracting Officer
i. Security
j. OAS Regional Office **or** USFS Regional Office
k. Regional Communication / Coordination Center
l. State Emergency Operations Center
m.

Emergency Contact Checklist

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HELICOPTER AMBULANCE REQUEST INFORMATION

A. Injury Information

1. Total personnel involved in mishap _____

2. Time of mishap _____

3. Type or extent of injuries (vitals, other medical personnel on scene):
_____
_____
_____

B. Mishap Site Information

1. Unit/Agency _____

2. Contact name and telephone number _____

3. Radio frequency to contact unit/agency: VHF – AM _____ VHF-FM _____

4. Location of mishap: a. Township _____ Range _____ Section _____ 1/4 Section _____

b. Latitude _____ Longitude _____

c. _____ Nautical miles at _____ Degrees from _____ VOR _____

d. Prominent landmark: Distance _____

5. Site Contact: _____

Radio frequencies at mishap site: Primary: VHF-AM _____ VHF-FM _____
Secondary: VHF-AM _____ VHF-FM _____

6. Other known aircraft in the area (call signs) _____

Air-to-Air Frequency Primary: VHF-AM _____ VHF-FM _____
Secondary: VHF-AM _____ VHF-FM _____

7. Special information, flight hazards, MOAs, MTRs, etc. _____
_____
_____

8. Landing site(s) and conditions (location, description, hazards, control measures, etc.) _____
_____

9. Proximity of landing site to mishap site _____
_____
_____

10. Nearest available AV Gas/Jet A fuel _____

11. Conditions at the mishap site: Wind direction _____ Wind velocity _____
Ceiling and visibility _____ Obstructions to visibility _____
Obstructions to visibility _____ Temperature _____
Degrees (F or C) _____ Elevation _____ Sunrise _____ Sunset _____
Description of Terrain _____
_____

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Administrative Review

All personnel involved in aviation operations should be familiar with the Aviation Mishap Response Guide and Checklist.

The Guide should be reviewed and updated annually or when contact numbers or personnel changes occur.

The Guide should be reviewed by all aviation personnel on an annual basis.

Name	*Date*

Sponsored for NWCG publication by the NWCG Equipment and Technology Branch, National Interagency Aviation Committee. Questions regarding content of this publication may be directed to the National Interagency Aviation Committee members listed at http://www.nwcg.gov/branches/et/niac/index.htm. Revisions and corrections to this document should be directed to OAS Aviation Safety & Evaluations Division at (208) 433-5070.

This publication is posted at www.nwcg.gov.

Copies of this document may be ordered from the Great Basin Cache, National Interagency Fire Center, Boise, ID. Please refer to the annual NFES Catalog Part 2: Publications for ordering procedures and cost posted at www.nwcg.gov.

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Notes

Attachment B

Safety Communique Form

(AMD-34)

AMD-34
(01/12)

Safety Communiqué Form

AMD-34 / FS 5700-14

SAFECOM Aviation Safety Communique' 	**REPORTED BY: (optional)** **Name:** **E-Mail:** **Phone:** **Cell Phone:** **Pager:** **Organization:** **Organization Other:** **Date Submitted:**

EVENT			
Date:	**Local Time:**	**Injuries:**	**Damage:**
State:	**Location:** (Airport, City. Lat/Long or Fire Name)		
Operational Control: **Agency:** **Region:** **Unit:**			

MISSION (* see look-up tables)		
Type: *	Other:	
Procurement: *	Other:	
Persons Onboard:	Special Use:	Hazardous Materials:
Departure Point:	Destination	

AIRCRAFT (* see look-up tables)			
Type: *	Tail #	Manufacturer: *	Model:
Owner/Operator:	Pilot:	Manager:	

NARRATIVE: (A brief explanation of the event)

CORRECTIVE ACTION: (What was done to correct the problem)

SAFECOM FORM INSTRUCTIONS

The Aviation Safety Communique (SAFECOM) database fulfills the Aviation Mishap Information System (AMIS) requirements for aviation mishap reporting for the Department of Interior agencies and the US Forest Service. Categories of reports include incidents, hazards, maintenance, and airspace. The system uses the SAFECOM Form AMD-34 or FS-5700-14 to report any condition, observation, act, maintenance problem, or circumstance with personnel or aircraft that has the potential to cause an aviation-related mishap. The SAFECOM system is **not** intended for initiating punitive actions. Submitting a SAFECOM is **not** a substitute for "on-the-spot" correction(s) to a safety concern. It is a tool used to identify, document, track and correct safety related issues. A SAFECOM **does not** replace the requirement for initiating an accident or incident report.

These instructions and helpful hints are intended to make the process of submitting a SAFECOM as easy as possible. If you need assistance, please don't hesitate to call the Forest Service at (208) 387-5285 or the Aviation Management Directorate, Aviation Safety at (208) 433-5070. After the completion and submission of your SAFECOM, your data will be stored in a central database that is shared on an interagency basis. Therefore, you only have to submit one SAFECOM per event.

The **REPORTED BY section** is associated with the person submitting the SAFECOM. All of these fields are optional. However, this contact information is extremely helpful if it becomes necessary to follow-up with the submitter on a particular issue. This section asks for the name of the person reporting the event, their contact information and the organization they work for. If you choose to submit your name or any other information in this section, it will not appear on the SAFECOM that is available to the general public.

The **EVENT** section asks for the "when" and "where" in addition to damage or injuries. Enter the **Date** in the **mm/dd/yyyy** format, and then enter the **Time** using the 24-hour time format, i.e. **hhmm.** Note that the date is a required field and both the date and time fields will only accept numeric characters. Were there any **Injuries**? **Yes** or **No**. If you select **Yes**, please explain in the narrative. Was there any **Damage**? **Yes** or **No**. If you select **Yes**, please explain in the narrative. The next field in this section is the **State**, which applies to the state where the event occurred. Note that the **State** field is a required entry. In the **Location** field enter the airport, name of the fire or lat and long. The next three selections identify the Agency, Region or State for USDI and the Unit that had operational control of the mission at the time of the event. These selections determine which organization(s) will receive initial notification that a SAFECOM has been entered into the database. From the look-up table select the **Agency**. From the next look-up table select the **Region** for USFS or **State** for USDI. Next, select the **Unit** from the look-up table if it applies. See examples below:

Agency: Bureau of Land Mgt	**Region**: Alaska State Office	**Unit**: Glenallen FO
Agency: Forest Service	**Region**: Region 2	**Unit**: San Juan NF

The **MISSION** section asks for information that describes the mission at the time of the event. In the **Type** field, use the look-up table to make a selection that best describes the mission that was being performed. Use the **Other** field if you need to further identify the mission or if nothing is available from the look-up table that actually describes the mission. In the **Procurement** Field, enter how the aircraft you were utilizing was procured from the look-up table. Use the **Other** field to further identify procurement if necessary. Under **Persons**

Onboard, enter the total number of people on the aircraft, which includes the pilot(s), all flight crew personnel and passengers. Was the mission **Special Use, Yes** or **No?** Many of our missions are special use. In fact, almost all fire missions are considered special use as well as animal counting, herding, eradication, etc. Were there **Hazardous Materials** onboard, **Yes** or **No?** In **Departure Point**, enter where you departed from, an airport or helibase for example and under **Destination**, enter the intended destination, which could be an airport, fire name or helispot.

The **AIRCRAFT** Section generally applies to the aircraft you are utilizing. However, in the event of an airspace intrusion, conflict or near mid-air, enter as much information as possible about the other aircraft. If there are multiple aircraft involved, list the other aircraft in the narrative section. In the **Type** field, enter the aircraft type from the look-up table. In the **Tail #** field enter the tail number of the aircraft beginning with **N** for US Registered and **C** for Canadian Registered aircraft. Please do not enter the Tanker, Jumper or Helicopter number unless that is all you have. In the **Manufacturer** field, select the manufacturer from the look-up table. In the **Model** field, enter the model number without any spaces or hyphens for example, 206L3, DC6, PB4Y2. In the **Owner/Operator field**, enter the name of the agency if the aircraft is an agency fleet aircraft (ie USFS, USDI, etc) or the name of the vendor operating the aircraft if it is contracted. In the **Pilot** field enter the pilot's name, first name then last name.

In the **NARRATIVE** section give a brief description of the event with the facts and outcome of the event. Elaborate on any previous blocks above as necessary.

In the **CORRECTIVE ACTION** section give a brief description of the corrective action that was taken in an effort to prevent the event from reoccurring. Remember, submitting a SAFECOM is not a substitute for resolving the problem and taking on the spot corrective action. SAFECOMS are for tracking and trending purposes.

Accidents and Incidents-With-Potential (IWP) must be reported immediately via the most expeditious method in accordance with the Interagency Aviation Mishap Response Plan. A SAFECOM should be completed later, but it is not to be used as an initial notification method.

The SAFECOM should be routed through the local unit aviation officer or can be faxed to Aviation Management Directorate, Aviation Safety at (208) 433-5007 or USFS at (208) 387-5735 ATTN: SAFETY or entered directly on the internet at www.safecom.gov