United States Department of Agriculture
Forest Service

United States Department of the Interior
Aviation Management

Interagency Aviation User Pocket Guide

October 2008

NFES 1373

Foreword

The object of this guide is to promote aviation safety in the field. For detailed aviation policy or information, consult your aviation manager or specialist as well as agency manuals, handbooks, and guides.

This guide is reviewed and updated by the USDA Forest Service (FS) and DOI National Business Center Aviation Management Directorate (NBC-AMD). Questions or suggestions to the guide should be directed to your agency aviation safety manager.

Additional copies of this guide may be ordered from the National Interagency Fire Center, ATTN: Great Basin Cache Supply Office, 3833 South Development Avenue, Boise, ID 83705.

This information may be viewed online at http://amd.nbc.gov.

Order NFES 1373.

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Contents

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Pilot and Aircraft Approval

- Aircraft and pilots must meet agency standards for the mission being flown.
- If the pilot and aircraft are approved for use, aircraft approval documents (cards or letters) are issued.
- Approval documents must be current. Check the expiration date.
- Documents must match pilot and aircraft (tail number and company).
- A valid and current method of agency procurement must exist.

Ordering/Coordinating Flights

Whether a flight is conducted to transport personnel to attend a meeting or is utilized to count waterfowl, aircraft must be ordered according to policy and by personnel who have the authority to order those aircraft. Only aircraft that are under a procurement document such as an aircraft rental agreement, a call-when-needed contract, or an exclusive use contract should be used. If an aircraft is needed, PLAN AHEAD! The following information will be required:

- Names and weights of passengers.
- Weight of cargo or baggage. Any abnormally bulky items or weights over 35 lb should be noted.
- Itinerary.
- Management code for charges.
- Flight route. If a local flight, check unit hazard map for flight hazards.

You should arrive at the airport or helibase at least 30 minutes prior to departure time. If your plans change and the flight is to be cancelled, let your agency know right away. (If not cancelled at least 1 hour in advance, some contracts may require payment of a minimum amount.)

Ordering/Coordinating Flights
(continued)

Single Engine Aircraft Restrictions

- Single engine passenger night flights are not allowed. (The flight can be initiated one-half hour before sunrise and the aircraft must be on the ground one-half hour after official sunset.)

- Single engine passenger instrument (IFR) flights (consult agency policy).

- DOI policy: This applies to all single reciprocating engine aircraft only.

- USFS: This applies to all aircraft.

Fixed-Wing Flight Manager Responsibilities

A fixed-wing flight manager will normally be designated whenever a mission involves multiple personnel. The designee's duties and responsibilities are to:

- Check pilot and aircraft approval documents for currency and mission qualifications.
- Ensure safe and efficient management of the flight.
- Explain to all personnel at the beginning of travel the transportation arrangements, route, stopping points, and estimated time of arrival.
- Have copies of passenger manifest available for charter aircraft and dispatching receiving units.
- Maintain the telephone numbers of the dispatching receiving offices in case of delays of more than 30 minutes.
- Ensure proper flight following/resource tracking procedures are in place.
- Assemble the passengers for boarding.
- Brief the pilot on the mission requirements.
- Assist in the safety and welfare of each passenger.

Passenger Responsibilities

You share responsibility for aviation safety and are expected to take timely action to prevent unsafe operations.

You are not authorized to ride in any aircraft or with pilots not properly approved and carded. You should not hesitate to request pilots to produce approval evidence.

You should discuss, with the pilot, the mission, any concerns with agency policy, or anything that appears to be of issue. Remember, the pilot is in charge of the aircraft and responsible for the overall safety of the flight. Do not put pressure on your pilot to fly missions that may be unsafe.

Anyone can refuse or curtail a flight when an unsafe condition may exist!

See Aviation “Watch Out” Situations on the back cover.

Ground Safety

- Keep well clear of helicopter rotors and airplane propellers.
- Always get the approval of a flight crewmember before approaching any starting or operating aircraft. Only approach and depart as directed in full view of a crewmember.
- Keep seatbelt and shoulder harness fastened until instructed by the pilot to unbuckle.
- Familiarize yourself with the operation of buckles and straps as well as emergency exits and doors.
- Aircraft must be loaded by qualified personnel only.
- Personnel loading hazardous materials MUST be trained and qualified to do so.
- No smoking within 50 feet of an aircraft.
- Do not back vehicles towards aircraft or drive under rotors.
- Do not throw objects to or from an aircraft.

Air Safety

- No smoking.
- Keep clear of controls.
- Stow objects securely while in flight.
- Keep alert for hazards, particularly towers, transmission lines, and other aircraft. Inform the pilot of their presence.
- Avoid unnecessary talk with the flight crew.
- Keep seatbelt and shoulder harness fastened until instructed by the pilot to unbuckle.
- Keep all required PPE in place while in flight.
- Turn off handheld radios/cell phones. Consult pilot on use of other handheld electronic devices.

Hazardous Materials (HazMat)

Materials classified as hazardous by the DOT must be carried in compliance with the hazardous materials exemption, the *Interagency Hazardous Materials Transportation Guide,* and the *Emergency Response Guide*. These documents MUST be on board the aircraft.

Examples of hazardous materials are:

- Explosives
- Diesel fuel
- Solvents
- Fusees
- Propane
- Jet fuel
- Wet cell batteries
- Kerosene
- Gasoline
- Aerosols
- Foam concentrate
- Ammo

The pilot must be notified of hazardous material before it is loaded on the aircraft.

Hazardous material can only be loaded by those trained and qualified to do so. Training is available at www.iat.gov.

Personal Protective Equipment

Personal protective equipment is required for ALL helicopter flights and some fixed-wing flights. When in doubt, **wear it.**

- Above-the-ankle leather boots and no metal against the skin.
- Nomex pants and shirt or flight suit buttoned or zipped to the top, collar turned up, sleeves rolled down. Pants covering the boot tops.
- Nomex or leather gloves.
- Non-synthetic (cotton, wool) outer and undergarments.
- Protective headgear (consult agency policy).
- Manual PFDs are required for overwater flights beyond gliding distance from shore.

Refer to the *Aviation Life Support Equipment (ALSE) Handbook* for specific mission requirements (http://amd.nbc.gov).

Personal Survival Equipment

Aircraft accident experience has shown that survival equipment carried on your person is often the only equipment available to the survivors.

Recommended personal survival items include:

- Signal mirror
- Whistle
- Knife or tool containing a knife blade
- Personal locator beacon/ cell phone
- Fire starter
- Water purification tablets
- Laser rescue light or keychain LED light
- Handheld radio and knowledge of how to use frequencies and repeaters in area of flight.

Five Steps to a Safe Flight

1. Pilot/aircraft data card approved and current.

2. Flight plan approved/flight following initiated.

3. Personal protective equipment in use when required.

4. Pilot briefed on mission and known flight hazards.

5. Crew and passenger briefing to include:

- Aircraft hazards
- Seatbelt and harness
- ELT and survival kit
- First aid kit
- Gear and cargo stowed securely --not under seats
- Fire extinguisher
- Oxygen equipment
- Emergency egress
- Smoking
- Fuel, battery, and oxygen shutoffs

Helicopter Landing Area Selection

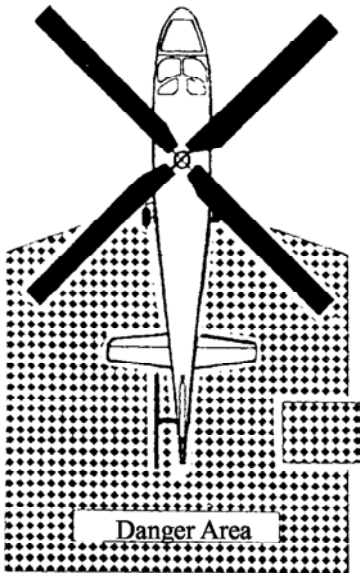
Choosing a landing area:

- Locate a reasonably flat area.
- Choose an area clear of overhead wires, people, vehicles, fences, trees, and poles. The area must be free of stumps, brush, posts, large rocks, or anything over 18 inches high.
- Consider the wind direction. Helicopters land and take off into the wind. Choose an approach free of obstructions.
- Remove or secure any loose items in and around the landing area such as trash, blankets, hats, or equipment.
- Wet down the landing area if dusty conditions are present.

Helicopter Landing Area Safety

A safe landing area should be 1½ times the rotor diameter

Keep bystanders well clear of the helicopter and supervise the safety of personnel working around the helicopter.

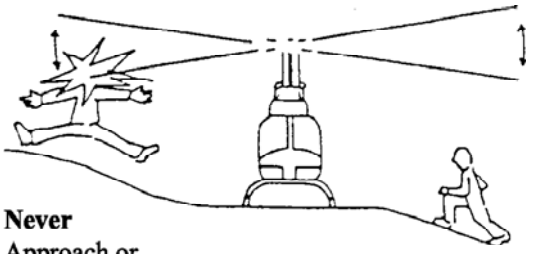


=Avoid these areas

Helicopter Landing Area Safety
(continued)

- Always get the approval of a flight crewmember or the pilot before approaching a starting or operating helicopter. Only approach and depart as directed, in a slightly crouched position and in full view of a crewmember.

- When approaching or departing, do not hold equipment overhead.



Never
Approach or
leave uphill

Always approach from the downhill side.

Aircraft Mishap Response Actions

Time is an extremely critical factor in responding to an emergency situation. Immediate positive action is necessary; delay may affect someone's survival.

Rescue Operations

- Preserve life!
- Extricate injured occupants and extinguish fires, keeping your safety and the safety of others in mind.
- Document and/or photograph the location of any debris which must be disturbed in order to carry out rescues and/or fire suppression activities.
- Secure the area. Deny access to all except the NTSB, FAA, and agency accident investigation team.

Site safety precautions. Aircraft wreckage sites can be hazardous for many reasons other than adverse terrain or climatic conditions. Personnel involved in the recovery, examination, and documentation of wreckage may be exposed to physical hazards posed by such things as hazardous cargo, flammable and toxic fluids, sharp or heavy objects, and disease. It is important to exercise good judgment, utilize available protective devices and clothing, and use extreme caution when working in the wreckage. Do not exceed your physical limitations.

Aircraft Mishap Response Actions
(continued)

Wreckage security. Treat the area like a crime scene. Arrange for security at the accident scene. Determine if HazMats are on the aircraft and request special assistance if necessary. Wreckage and cargo should not be disturbed or moved except to the extent necessary:

- To remove persons injured or trapped.
- To protect the wreckage from further damage.
- To protect the public from injury.

Where it is necessary to move aircraft wreckage, mail or cargo, sketches, descriptive notes and photographs should be made. Monitor accident site security. Permit only authorized persons onsite.

News releases. Information released to news media regarding the accident must be made by the National Transportation Safety Board (NTSB).

Evidence. Perishable evidence, e.g., human factors data and witness information, must be quickly documented.

Flight Following

When flight following is accomplished, the aircraft's flight route is known and a predetermined check-in time is established. Deviation from your flight plan/route and not maintaining communication may jeopardize search and rescue response.

Identification of flight following requirements. At the time the flight is planned, flight following requirements should be clearly identified, including flight following method (radio or Automated Flight Following (AFF)), check-in procedures, including time and locations, dispatch office(s), and frequencies to be used. Also, special circumstances requiring check-ins should be identified, for example, to military facilities within special use airspace.

Check-in requirements. Check-in intervals or times must be specified in the agency's flight following procedures. Check-ins must be documented and provide enough information so that the aircraft can be easily located if it is overdue or missing.

Failure to meet check-in requirements. The dispatch or other flight following facility shall implement response procedures for overdue or missing aircraft.

YOU NEED TO FIND OUT WHAT THE LOCAL POLICY IS PRIOR TO FLIGHT!

Overdue or Missing Aircraft

- An aircraft is considered "overdue" when the pilot fails to check in within the timeframe specified in the agency's flight following request, or when an aircraft operating on an FAA (VFR) flight plan fails to arrive within 30 minutes past ETA and its location cannot be established.
- An aircraft is considered "missing" when it has been reported to a flight service station (FSS) as being "overdue" and the FSS has completed its administrative search for the aircraft.
- *Safety Alert 08-01* identified the U.S. Air Force Rescue Coordination Center (RCC) as the best point of contact for initiating SAR operations to locate missing or downed aircraft.

Continental U.S.	AFRCC	850-283-5955
	(toll free)	800-851-3051
Ft. Richardson, AK		907-428-7230
Outside Anchorage, AK		800-420-7230
Honolulu JRCC		808-535-3333

Overdue or Missing Aircraft
(continued)

The RCC may require the following information:

Reported by _____Agency _____

Phone_____Flight plan (type) _____

Operator _____Pilot's name_____

Aircraft #_____Type _____

Aircraft color _____Number aboard _____

Departure point_____Date/Time _____

Route _____Destination _____

ETA _____Fuel on board _____

Last contact (time, location, and radio frequency)

_____

_____

_____

Reportable Safety Concerns

If things happen that make you uneasy or appear to be unsafe, you have an obligation to discuss your concerns everyone involved immediately. Contact your agency aviation representative and document the issue and corrective actions taken on a Safecom. This type of information sharing will help improve overall aviation safety.

A SafeCom (form AMD-34 or FS5700-14) is used to report any condition, hazard, act, maintenance problem, or circumstance which has the potential to cause an aviation-related mishap (www.safecom.gov).

- **If you see something, say something!**
- If you think it's wrong, question it.
- If you know it's wrong, stop it.
- Either way, REPORT IT!

USDA-FS/DOI NBC-AMD
24-Hour Accident Reporting Hot Line
Dial 1-888-464-7427 or 1-888-4MISHAP

Aviation Operational
Risk Management

5-Step Process

IAMIS

1. Identify hazards
2. Assess hazards
3. Make risk decisions
4. Implement controls
5. Supervise (watch for changes)

Risk Assessment Worksheet

For more information, see the
BLM/FS Risk Assessment Guide at
http://www.fs.fed.us/fire/av_safety/index.html
or
http://www.blm.gov/nifc/st/en/prog/fire/aviation/safety.html

RISK ASSESSMENT MATRIX

Likelihood \ *Severity*	Negligible	Marginal	Critical	Catastrophic
Frequent	Medium	Serious	High	High
Probable	Medium	Serious	High	High
Occasional	Low	Medium	Serious	High
Remote	Low	Medium	Medium	Serious
Improbable	Low	Low	Low	Medium

RISK ASSESSMENT WORKSHEET

Assess the risks involved with the proposed operations. Use additional sheets if necessary.

Assignment **Date**

Describe Hazard:	Probability (A-E)	Effect (I-IV)	Risk Level
1.			
2.			
3.			
4.			
5.			
6.			
Mitigation Controls:	Probability (A-E)	Effect (I-IV)	Risk Level
1.			
2.			
3.			
4.			
5.			
6.			

Operation approved by: Title Date

Notes

Notes

Aviation "Watch Out" Situations

- Is this flight necessary?
- Who is in charge?
- Are all hazards identified and have you made them known?
- Should you stop the operation or flight due to change in conditions?

Communications	Weather
Confusion	Turbulence
Conflicting priorities	Personnel

- Is there a better way to do it?
- Are you driven by an overwhelming sense of urgency?
- Can you justify your actions?
- Are there other aircraft in the area?
- Do you have an escape route?
- Are any rules being broken?
- Are communications getting tense?
- Are you deviating from the assigned operation or flight?