

# A-208 Aircraft and Pilot Approval



## Participant Workbook

Prepared by Training Division, Office of Aviation Services, OS  
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## **A-208 Aircraft and Pilot Approval**

### **Course Overview**

#### **What is the purpose of the course?**

To provide a clear understanding of why the Department of the Interior's Office of Aviation Services (DOI-OAS) and the United States Forest Service (USFS) inspect aircraft, pilots and support equipment. This includes preflight inspections, maintenance, contract and agency policy regarding aircraft equipment and condition requirements as well as operating handbooks and agency carding requirements. Also, the role of the user and how they can support the quality assurance of our carding process.

#### **Who are the intended participants?**

DOI and USFS Aviation Managers and personnel who participate in aviation activities

#### **What are the pre-requisites for the course?**

None

#### **How does OAS conduct the course?**

Instructor-led delivery in classroom, Webinar, and ITV formats.

#### **What are the course objectives?**

At the conclusion of this course, participants should be able to:

1. List 2 reasons why OAS and the USFS inspect aircraft
2. Identify 4 of the 5 types of procurement that require inspections
3. List 3 mission profiles that require inspection and carding
4. List 2 basic types of inspections performed by OAS/USFS
5. Identify 3 of the 4 types of cards issued by inspectors
6. Identify one consideration that mitigates the overall cost of an inspection
7. Explain user responsibilities in the inspection process



## Get to Know Your Classmates

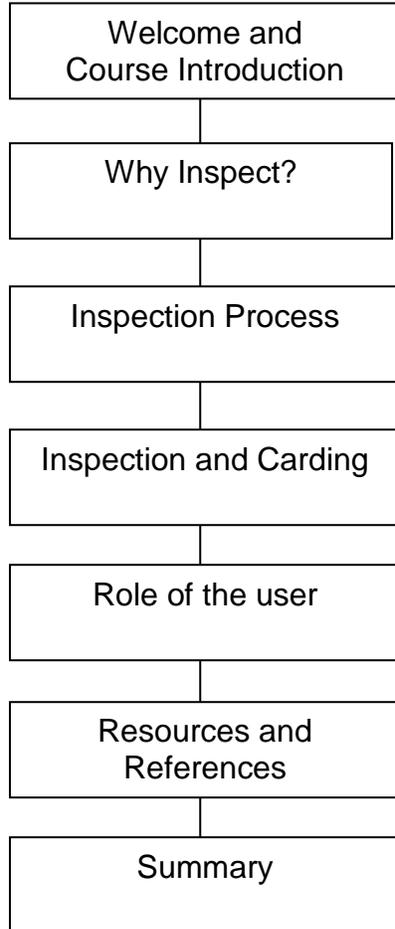
Be prepared to share:

- Your name?
- Your position?
- How you use aviation?
- What you hope to gain from participating in this course?

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# A-208

## Aircraft and Pilot Approval

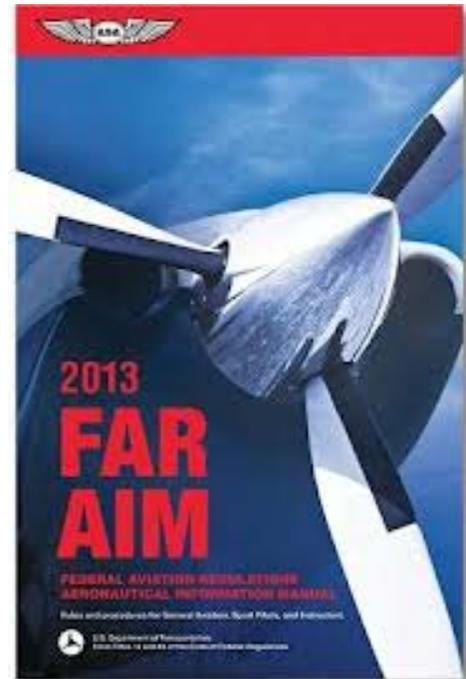


# Why Inspect?

*To understand why we inspect and card Aircraft and Pilots it is important to start with who has responsibility to provide standards for pilots and aircraft maintenance...*

The Federal Aviation Administration (FAA) has the role and responsibility to oversee aviation. The policy that is written to provide parameters for all aviation is the Federal Aviation Regulations (FAR). The FAR's are broken into parts that give direction to specific areas of aviation use.

- Part 121 operators – air carriers (i.e. Delta, United, Southwest)
- Part 135 operators – commuter and on demand air charter, commercial operations
- Part 133 operators – external load only – no passengers
- Part 137 operators – agriculture aircraft (i.e. dispensing of chemicals, water with foam, or retardant with fertilizer)
- Part 91 operators – private use aircraft (i.e. a personal aircraft)



*Published yearly*

## Notes:

All aircraft use, which is procured by the government through contract, will fall into one or more of these operating categories.

This means that they are subject to adhering to the guidelines established in the FAR's under the part they are operating. The government must work within these guidelines as well except under situations where special equipment or guidelines are required by the DOI and USFS, at which point the Government may decide to operate under "public" authority.

**Notes:**

The FAA inspects aircraft and pilots to the degree that they fall under “civil” authority and are adhering to the Federal Aviation Regulations.

**“Special Use”** – Operations involving the utilization of airplanes and helicopters in support of DOI and USFS programs which are not point-to-point flight activities and which require special considerations due to their functional use. Special pilot qualifications and techniques, special aircraft equipment, and personal protective equipment are required to enhance the safe transportation of personnel and property.

**3 key reasons that OAS / USFS conduct their own inspections:**

**1. Inspect what the FAA doesn't –**

**2. Contract Compliance –**

**3. Aviation Safety –**

# Inspection Process

You must first understand how an aircraft is procured in order to know where the requirements for that aircraft will be specified. The requirements can be found in contracts and policy documents. These provide the parameters under which an aircraft will be utilized, and gives the Inspector the guidelines under which an aircraft or pilot is certified.

## Procurement Categories & Types

Contracted –

- Exclusive use contracts
- Call-when needed or On-call contracts
- Aircraft Rental Agreement

Non-Contracted –

- Fleet Aircraft
- Cooperator Aircraft

## Inspectors

There are three types of Inspector qualifications –

1. Maintenance Inspector –
2. Avionics Inspector –
3. Pilot Inspector –



**Exclusive Use**



**Fleet  
Notes:**

**Inspection Standards**

There are various mission profiles that require specific standards for inspection. Below are listed some of those profiles that may be required, by contract, that a vendor be certified for.

**Notes:**

- *Point-to-point* –
  
- *External load* –
  
- *Interagency fire* –
  
- *Low level (below 500')* –
  
- *Air tactical* –
  
- *Para-cargo* –
  
- *Fuel service vehicle* –
  
- *Resource reconnaissance* –
  
- *Offshore platform/shipboard landings* –
  
- *Fire reconnaissance* –

**Inspection Closeout**

*Once the inspection is complete there will be one of two results.*

**Notes:**

## 1. Satisfactory Results

- Document results
  
- Issue Pilot, Aircraft, Mechanic, & Support vehicle cards
  
- Results to the Contracting Officer

## 2. Unsatisfactory Results

- Document discrepancies for each aircraft/pilot
  
- Confirm deficiencies & re-inspection schedule

**Notes:**

## Understanding Inspections...



**Identify the primary things that determine the “Who? What? And When?” of conducting inspections.**

Take 3-5 minutes to complete the worksheet below, Identifying key take home points from this unit. Then be prepared to discuss results with the group.

1. Place the procurement types on the right in the appropriate procurement category on the left.

➤ Contracted –

Fleet

Exclusive-use

➤ Non-contracted –

Aircraft Rental Agreement

Call When Needed

On-call

Cooperator

2. List the three types of inspectors that are employed by the Government.

3. Read the following scenario and answer the questions that follow

*The BLM has contracted a helicopter for a 90 day Exclusive-use period. It is to support wildland fire operations and occasional prescribed fire activities. The helicopter will be supported by a 10 person Helitack crew. The operation must be capable of being mobilized to anywhere in the Western United States as needed.*

- a) List some of the potential standards that the aircraft and pilot will need to be certified for.
  
- b) What types of inspectors will be needed in order to properly card the aircraft and crew for the expected missions?

# Inspection and Carding

There are 4 basic types of inspection, and with each type of inspection there is usually a card that records what was inspected and approved.

**Notes:**

## Inspection Types

4 types of inspection:

- 
- 
- 
- 

When possible a group of inspectors will travel together to complete as many types of inspections as needed by a vendor to meet procurement requirements.

### 1. Aircraft Inspection Standards

The inspection process begins with the inspector's reviewing the contract to determine the requirements to which the aircraft will be inspected.

During the inspection the vendor must provide all requested documentation and records associated with the aircraft. This includes:

- 
- 
- 
- 
- 
-

Aircraft inspections also involve a hands-on physical inspection of the interior, exterior, engine(s), propellers / rotors, power train components, and avionics to ensure that all required equipment is installed and serviceable.

**Notes:**

Items that must be on board the aircraft:

- Copy of the contract must be in the aircraft
- Aircraft security devices
- Aviation Transportation of Hazardous Materials Handbook/Guide with current special permit exemption
- Most current Emergency Response Guide
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**2. Equipment Inspection Standards**

As inspectors review the contract they may come across special equipment requirements. A few examples of required special equipment that may be specified in a contract are:

- Cargo hook, longline, remote hook
- High skid gear
- Aircraft flotation system
- White strobe lights
- Painted rotor blades
- Extended baggage compartments
- Animal tracking antennas
- Collapsible water bucket
- Fixed tank with snorkel

**3. Avionics Inspection Standards****Notes:**

An avionics inspector must verify which avionics systems are required from the procurement document. Examples of avionics that may be required are:

- FM radio system
- Intercom system
- Navigation system
- Auxiliary plugs for powering equipment and radios
- TCAS (traffic collision avoidance system)
- AFF (automated flight following)

Physical avionics inspection will include a functional check of radio and signal transmitting systems. Some of the systems that an Avionics Inspector may test, include:

- Emergency Locator Transmitter (ELT)
- Intercom
- AM,FM, and AUX-FM radio installation check
- Satellite telephones
- Automated Flight Following (AFF)

**Notes:**

**4. Pilot Inspection Standards****Notes:**

All pilots that are approved by OAS or USFS fall into one of four categories. Each category has unique requirements that must be met prior to being carded or approved by a pilot inspector.

**a Vendor Pilots –**

Requirements:

- 1500 hours pilot-in-command (PIC for visual flight rules (VFR) or instrument flight rules (IFR))
- Commercial certificate
- Instrument rated
- 2<sup>nd</sup> class medical certificate

**b Cooperator Pilots –**

Requirements:

- 1500 hours PIC for VFR or IFR operations
- Commercial certificate
- Instrument rated
- 2<sup>nd</sup> class medical certificate

**c Military Pilots –**

Requirements:

- Army, Navy, Marine, Air Force pilots must meet service requirements as designated by their department. This may be less than 500 hours of PIC.
- National Guard pilots must have 500 hours PIC for VFR operations

**d Fleet Pilots –**

Requirements:

- Commercial certificate
- Instrument rated
- 2<sup>nd</sup> class medical certificate
- 500 hours PIC for VFR operations
- 1500 hours PIC for IFR operations

**Pilot Evaluation Procedures****Notes:**

There are several stages of evaluation. The first begins on the ground, prior to flight. Pilots may be tested on:

- Contract specifications
- Weight and balance
- Performance planning
- Load calculations
- Airspace knowledge

Following review of pilot qualifications and review of pre-flight operations, the pilot may be required to demonstrate flight skills that may include:

- Flight in accordance with Part 135 operation specifications.
- Pilots may be tested on proficient use of aircraft equipment.
- Pilots will be tested on any special use required equipment.
- Some specialized skills require advanced training and will be tested for accuracy by inspector

**Notes:**





# Role of the User

The ultimate goal behind the inspection and carding process is to provide mitigation to potential risks associated with flying high risk missions. There are several limitations to this mitigation that can be supported by the users in the field.

## Notes:

### Inspection Costs

- Large number of aircraft and pilots needing inspections
- Contracts often dictate start dates
- Pilots sometime require special flight observations while performing specific missions

### Limiting Factors

- Vendors: Best Behavior
- Inspections Capture a Snapshot
- Time provides possibility of change between inspection and use



## User Responsibilities

- Support reducing costs by coordinating early and often with those conducting the inspections
  
- Take the time to ensure that an aircraft / pilot is properly carded and meets contract requirements before using it to complete missions/projects
  
- Educate employees that they have a responsibility in observing daily operations of the vendor
  
- Identify and document substandard or exceptional performance
  - SAFECOM
  - Daily Diary
  - Vendor Evaluations
  
- Communicate issues to the appropriate level in a timely manner
  - Unit/State/Regional aviation managers
  - Contracting Officers / Contracting Officers Representatives
  - OAS and USFS aviation specialists / inspectors



## Notes:

## Resources and References

### People

Unit Aviation Managers –

State/Regional Aviation Managers –

National Aviation Managers –

Contracting Officer(s) –

Contracting Officers Representative(s) –

OAS/USFS Inspectors –

### Print

Aviation Technical Assistance Directory

Various contracts

### Web

Aviation Technical Assistance Directory – PDF.  
<http://www.nwcg.gov/pms/pubs/pms504.pdf>

Office of Aviation Services  
<http://amd.nbc.gov/>

United States Forest Service  
<http://www.fs.fed.us/fire/aviation/>

**Notes:**