

A-208 Aircraft and Pilot Approval



Participant Workbook



Prepared by Training Division, Office of Aviation Services, OS
Revised May 29, 2014

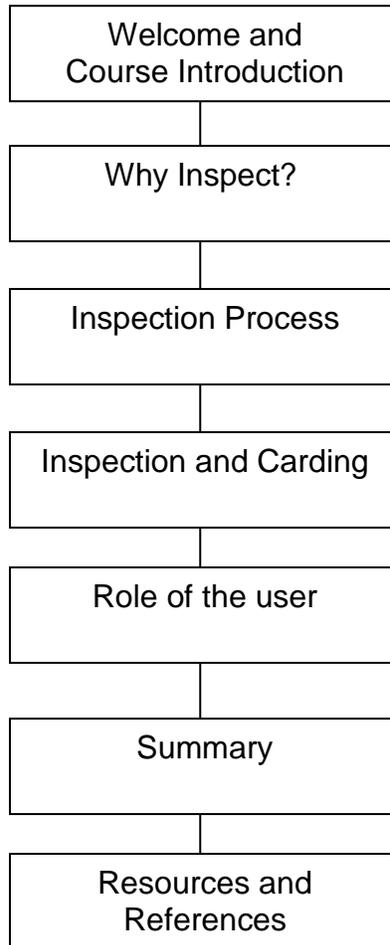
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Revision History

Version	Description	Date
1.00	Original Materials	NA
1.5	Revision	October 22, 2013
1.6	Editing Review	November 25, 2013
1.7	Formatting Updates, Crosswalk to IG and PPT, minor edits	May 29, 2014

A-208

Aircraft and Pilot Approval



Welcome and Course Introduction



Get to Know Your Classmates

Be prepared to share:

- Your name?
- Your position?
- How do you use aviation?
- What aviation missions have you been involved in?
- What you hope to gain from participating in this course?

Course Introduction

The purpose of this course is 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, handbooks, agency carding requirements. The course also discusses 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; personnel who participate in aviation activities

Course Objectives:

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

1. List two reasons why OAS and the USFS inspect aircraft.
2. Identify the five types of procurement that require inspections.
3. List three mission profiles that require inspection and carding.
4. List two basic types of inspections performed by OAS/USFS.
5. Identify the four 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.

Why Inspect?

Notes

To understand why we inspect and card Aircraft and Pilots it is important to start with identifying 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)

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.



Published yearly

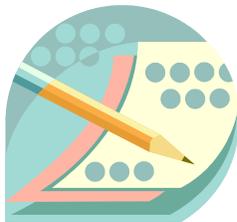
The FAA inspects aircraft and pilots to the degree that they fall under “civil” authority and are adhering to the Federal Aviation Regulations.

“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.

Three key reasons that OAS/USFS conduct their own inspections:

1. Inspect what the FAA doesn't
2. Contract compliance
3. Aviation safety



Interaction/Activity: Why inspect?

The USFS and DOI inspects for contract compliance to ensure the vendor has the required equipment for special use missions identified in the contract. Please list four common items of the special equipment that may be required:

1. _____
2. _____
3. _____
4. _____

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 and 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

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.

- Point-to-point
- External load
- Interagency fire
- Low level (below 500')
- Air tactical
- Para-cargo
- Fuel service vehicle



Exclusive Use



Fleet

- Resource reconnaissance
- Offshore platform/shipboard landings
- Fire reconnaissance

Notes

Inspection Closeout

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

1. Satisfactory Results:
 - Document results.
 - Issue Pilot, Aircraft, Mechanic and Support vehicle cards.
 - Provide results to the Contracting Officer.
2. Unsatisfactory Results:
 - Document discrepancies for each aircraft/pilot.
 - Confirm deficiencies and re-inspection schedule.



Activity/Interaction:

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. Be prepared to discuss results with the group.

1. Match the procurement types on the right to the appropriate procurement category on the left.

- Contracted

Fleet

Exclusive-use

Aircraft Rental Agreement

- Non-contracted

Call When Needed

On-call

Cooperator

Inspection and Carding

Notes

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

Inspection Types

Four types of inspection:

- Aircraft
- Equipment
- Avionics
- Pilot

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:

- Must have either a 100-hour or an annual aircraft inspection program (phase maintenance)
- TBO component time change items must be documented
- Emergency locator transmitter (ELT) battery change date is reviewed
- Listing of airworthiness directives (Ads) and manufacturer's mandatory service bulletins (SBs) are reviewed for compliance
- Aircraft weight and balance data is also reviewed

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.

Items that must be on board the aircraft:

- A 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
- Pilot: personal flotation device (PFD) and survival and first aid kits
- Flight manual with associated performance charts
- Radio systems:
 - GPS
 - AFF
 - AM and/or FM Radio(s)

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

An avionics inspector must verify which avionic 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)

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:

- 1) 1500 hours for helicopter pilot-in-command (PIC) for visual flight rules (VFR) or instrument flight rules (IFR)
- 2) 1200 hours for airplane pilot-in-command (PIC) with 1500 hours total time for visual flight rules (VFR) or instrument flight rules (IFR)
- 3) Commercial certificate
- 4) Instrument rated
- 5) 2nd class medical certificate

b) Cooperator Pilots

Requirements:

- 1) 1500 hours PIC for VFR or IFR operations
- 2) Commercial certificate
- 3) Instrument rated
- 4) 2nd class medical certificate

c) Military Pilots

Requirements:

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

d) Fleet Pilots

Requirements:

- 1) Commercial certificate
- 2) Instrument rated
- 3) 2nd class medical certificate
- 4) 500 hours PIC for VFR operations
- 5) 1500 hours PIC for IFR operations

Pilot Evaluation Procedures

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

Notes

- 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

Carding

4 types of cards that may be issued:

- Aircraft Data Card

AMC-88 (10/98)
INTERAGENCY DATA CARD
 (Aircraft)
 AVIATION MANAGEMENT DIRECTORATE

AMC-88 CONTROL NO. **ESTRAIN**
 SERIAL NO. **80-ASA-9186**
 CONTRACT NO. **N/A** / **10810**
 DESIGNATED AREA **BUTTE, MT**

OPERATOR **HELO STATION AIR** / **BASE ADDRESS** **HELO STATION HQT 890A**
 ADDRESS **139 AIRPORT LANE** / **TAX REGISTRATION NO.** **888832**
BUTTE, MT 89701 / **REG. SERIAL NO.** **88A-827**
 PHONE NO. **406-485-4388** / **HOME/INDIVIDUAL** **27364**
TAX / **REG. EXPIRES** **04/30/12**

Subscribed Users: **EXPRES** / **04/30/12**

PROSECUTOR Fee Per **0** (M)
 CARGO (M)
 SINGLE PILOT (W/AUTOPILOT)
 LOW LEVEL (L)

RESOURCE RECOGNANCE 1
 OF **EMERGENCY**
 OF **EMERGENCY**

OTHER: **AIR TRAIL TRACKING / TELEMETRY**

APPROVED BY: **Douglas O. Orton** / **DATE** **03/18/11**
 Print Name: **Douglas O. Orton** / **REGION/AREA** **AMD-88**
FOR TRAINING PURPOSES ONLY

- Pilot Qualification Card

USDA / USDI
HELICOPTER PILOT
QUALIFICATION CARD

Full Name: **James, Robert**
 Date of Birth: **01/27/58**
 Company: **ORION, LLC**

REGISTRATION NO: **38443** / **REG. EXPIRES** **11/30/2012**

CLASSIFICATION: **Helicopter Pilot** / **EXPIRES** **11/30/2012**

Category 1 / **Category 2** / **Category 3** / **Category 4** / **Category 5** / **Category 6** / **Category 7** / **Category 8** / **Category 9** / **Category 10** / **Category 11** / **Category 12** / **Category 13** / **Category 14** / **Category 15** / **Category 16** / **Category 17** / **Category 18** / **Category 19** / **Category 20** / **Category 21** / **Category 22** / **Category 23** / **Category 24** / **Category 25** / **Category 26** / **Category 27** / **Category 28** / **Category 29** / **Category 30** / **Category 31** / **Category 32** / **Category 33** / **Category 34** / **Category 35** / **Category 36** / **Category 37** / **Category 38** / **Category 39** / **Category 40** / **Category 41** / **Category 42** / **Category 43** / **Category 44** / **Category 45** / **Category 46** / **Category 47** / **Category 48** / **Category 49** / **Category 50** / **Category 51** / **Category 52** / **Category 53** / **Category 54** / **Category 55** / **Category 56** / **Category 57** / **Category 58** / **Category 59** / **Category 60** / **Category 61** / **Category 62** / **Category 63** / **Category 64** / **Category 65** / **Category 66** / **Category 67** / **Category 68** / **Category 69** / **Category 70** / **Category 71** / **Category 72** / **Category 73** / **Category 74** / **Category 75** / **Category 76** / **Category 77** / **Category 78** / **Category 79** / **Category 80** / **Category 81** / **Category 82** / **Category 83** / **Category 84** / **Category 85** / **Category 86** / **Category 87** / **Category 88** / **Category 89** / **Category 90** / **Category 91** / **Category 92** / **Category 93** / **Category 94** / **Category 95** / **Category 96** / **Category 97** / **Category 98** / **Category 99** / **Category 100**

- Mechanic Qualification Card

Pilot Name	Last Name	First Name	Date	Flight Evaluation Completed		
				Hours	Time	Altitude/Endurance
481M	Line Load (Bulb/Line/Line)					
481M	Helicopter Passenger Transport					
481M	External Load (Line/Line)					
481M	Water Resupply/Line					
481M	Longline V/Line					
481M	Coastal V/Line					
481M	Multi-engine Terrain Flight					
481M	Emergency Landing					
481M	Aerial Lifting/Line					
481M	Hoist Operations					
481M	Charge Operations					
481M	Line Operations (Other/Line)					

- Service Vehicle Data Card

USDA - INTERAGENCY - USDI
MECHANIC QUALIFICATION

NAME: _____
 COMPANY: _____
 CONTRACT NO.: _____
 CARD EXPIRATION DATE: _____
 ISSUED BY: _____ UNIT: _____
 DATE: _____ / _____ / _____

QUALIFICATION
 AIRCRAFT: _____
 ENGINE: _____

INTERAGENCY DATA CARD
FUEL SERVICE VEHICLE

CONTRACTOR: **ROTOR WING FLING**
 CITY: **GATORVILLE** / **ST. LA**

TYPE VEHICLE: **FORD F-550**
 LICENSE NO. **GAT876 (LA)** / **UNIT #** **4**
 CAPACITY GAL: **840** / **FUEL TYPE** **JET-A**

ARA # **80-ARA-9991** / **EXP DATE** **04/30/12**
 CONTRACT # **80-7600** / **EXP DATE** **04/30/12**
 CONTRACT # **N/A** / **EXP DATE** _____

APPROVED BY: **Douglas O. Orton**
 DATE: **1/28/2010** / **REGION/AREA** **AMD-WROB**

INTERAGENCY DATA CARD
FUEL SERVICE VEHICLE

CONTRACTOR: **ROTOR WING FLING**
 CITY: **GATORVILLE** / **ST. LA**

TYPE VEHICLE: **INTERNATIONAL T-600**
 LICENSE NO. **GAR118 (LA)** / **UNIT #** **22**
 CAPACITY GAL: **3800** / **FUEL TYPE** **JET-A**

ARA # **80-ARA-9991** / **EXP DATE** **04/30/12**
 CONTRACT # **80-7600** / **EXP DATE** **04/30/12**
 CONTRACT # **N/A** / **EXP DATE** _____

APPROVED BY: **Douglas O. Orton**
 DATE: **1/28/2010** / **REGION/AREA** **AMD-WROB**

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



Summary

You should now be able to:

1. List two reasons why OAS and the USFS inspect aircraft.
2. Identify the five types of procurement that require inspections.
3. List three mission profiles that require inspection and carding.
4. List two basic types of inspections performed by OAS/USFS.
5. Identify the four 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.

If you have any remaining questions regarding them, ask the instructor for clarification at this time.

Please be sure to complete and submit the Course Evaluation Form provided by the instructor.

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
<http://www.nwcg.gov/pms/pubs/pms504.pdf>
- Office of Aviation Services
<http://oas.doi.gov>
- United States Forest Service
<http://www.fs.fed.us/fire/aviation/>