The Department of the Interior’s Aviation Safety and Aircraft Accident Prevention program is founded on the four pillars of an integrated Safety Management System (SMS):

- **Policy**
- **Risk Management**
- **Promotion**
- **Assurance**

The Department of the Interior (DOI) requires aviation programs to be adequately resourced and managed. Those requirements provide the basis that enable us to prevent all aircraft accidents.

Successful aviation programs embrace a just culture that balances safety and accountability.

Successful implementation of policy combined with proactive management of sound operating principles remain the cornerstone of a successful aviation program. Management must also assure those polices and practices are measured to ensure they remain effective.

---

**Inside this issue:**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point of Contacts</td>
<td>2</td>
</tr>
<tr>
<td>Aviation Overview</td>
<td>3-5, 8-14</td>
</tr>
<tr>
<td>Risk Management</td>
<td>17</td>
</tr>
<tr>
<td>Policy and Assurance</td>
<td>6-7, 18</td>
</tr>
<tr>
<td>Awards and Achievement</td>
<td>19-22</td>
</tr>
<tr>
<td>Executive Summary</td>
<td>23</td>
</tr>
</tbody>
</table>
The U.S. Department of the Interior recorded four incidents with potential (IWP's) and ended the year with two accidents. The annual aircraft accident rate is 3.41 per 100K flight hours, a decrease of more than half from last year. The DOI mishap rate is 10.23 which is a decrease from the previous year by 1.78. Zero aircraft accidents is an attainable goal, we must meet and exceed expectations set for ourselves through training, safety guidelines and safety tools. ([https://www.doi.gov/aviation/library/guides](https://www.doi.gov/aviation/library/guides))

The Department’s annual aircraft accident rate in FY16 is 3.41 accidents per 100,000 flight hours. As of October 1, 2016, flight data captured 58,673.02 total flight hours, only 403.58 hours more than the previous year.

Since 1975, DOI’s aviation safety program has resulted in estimated savings of $694M to the Department and its supporting vendors in reduced losses. Flight missions performed for DOI were supported in part by bureau requested and OAS supported aviation contracts that required: 2,396 vendor pilot evaluations, 864 vendor aircraft inspections, 354 Interior fleet pilot evaluations, and 78 Interior fleet aircraft inspections. Aviation Training supported 637 instructor led course offerings accounting for 5,217 student hours of training and the Interagency Aviation Training website recorded 26,043 course completions.  

1Historical aircraft accident rate is defined as total historical aircraft accidents per 100,000 flight hours flown.
2Annual aircraft accident rate is defined as total aircraft accidents in one year per 100,000 flight hours flown.
3Includes DOI Fleet, Commercial Vendor, and Cooperator aircraft from other agencies. Pilots receive evaluations for each specific special use mission area qualification.
**General Aviation 2016 data hasn’t been updated as of Oct 2016**

Accidents are defined by 49 CFR 830.2 and determined by the NTSB. An Incident With Potential (IWP) is an incident that narrowly misses being an accident and is determined by OAS.

Mishaps = Accidents + IWPs

**DOI FY16 Mishap Overview**

**Accident Rate**

DOI accident rate has **decreased** by 3.45 from FY15. Flight hours have increased by only 1% over last year.

**DOI FY16 Mishap Overview**

Accidents are defined by 49 CFR 830.2 and determined by the NTSB. An Incident With Potential (IWP) is an incident that narrowly misses being an accident and is determined by OAS.

Mishaps = Accidents + IWPs

**General Aviation 2016 data hasn’t been updated as of Oct 2016**

*Aviation Mishap Rate includes UAS’s, the Flight Mishap Rate doesn’t include Unmanned Aircraft Systems.*
**FY16 Aviation Overview**

### DOI FY16 Mishap Overview

<table>
<thead>
<tr>
<th>Location</th>
<th>Date</th>
<th>Severity</th>
<th>Operator</th>
<th>Aircraft</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rockport, WA</td>
<td>9-12-16</td>
<td>Accident</td>
<td>Contractor</td>
<td>Bell 206B3</td>
<td>Substantial damage to the aircraft after landing.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NPS Pacific West</td>
<td>Helicopter</td>
<td></td>
</tr>
<tr>
<td>Ely, NV</td>
<td>6-30-16</td>
<td>Accident</td>
<td>Fleet OAS</td>
<td>Cessna 206</td>
<td>Abnormal runway contact: Substantial damage to aft bulkhead during unstable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“Stationair”</td>
<td>approach and landing.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silver Salmon, AK</td>
<td>3-14-16</td>
<td>IWP</td>
<td>Fleet</td>
<td>Cessna TU-206G</td>
<td>Fleet aircraft landed on off-airport and wing hit sand.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NPS Alaska</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valley Wells, CA</td>
<td>1-16-16</td>
<td>IWP</td>
<td>Fleet</td>
<td>Falcon</td>
<td>UAS crashed, significant damage.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USGS Pacific</td>
<td>Fixed Wing</td>
<td></td>
</tr>
<tr>
<td>Lafayette, LA</td>
<td>12-9-15</td>
<td>IWP</td>
<td>Contractor</td>
<td>Augusta Westland</td>
<td>Near mid-air collision.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>BSEE Gulf</td>
<td>A119</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>of Mexico</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lake Clark NP, AK</td>
<td>10-12-15</td>
<td>IWP</td>
<td>Fleet</td>
<td>Piper Super Cub</td>
<td>Aircraft landed on gravel bar and right wing contacted the ground causing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NPS Alaska</td>
<td>PA-18</td>
<td>damage to rudder and elevator.</td>
</tr>
</tbody>
</table>

---

**Incidental Cost associated with Mishaps**

<table>
<thead>
<tr>
<th>Cost Input</th>
<th>Cost</th>
<th>Cost Input</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bureau Investigation</td>
<td>$4,000</td>
<td>OAS Investigation (reimbursable)</td>
<td>$5,000</td>
</tr>
<tr>
<td>DOI Losses (i.e. a/c repair, recovery, loss of availability, loss of life)</td>
<td>$7,400</td>
<td>Vendor Losses (i.e. A/C repair, recovery, loss of availability, etc.)</td>
<td>$200,000</td>
</tr>
<tr>
<td>Fatality (0) *VSL</td>
<td>$0</td>
<td>Minor Injuries (0)</td>
<td>$0</td>
</tr>
</tbody>
</table>

Total Costs (6 Mishaps) $216,400

All cost associated with mishaps have not been finalized due to ongoing investigations and repairs associated to the mishaps, these costs may rise.

---

**DOI Flight Usage Cost**

Cost associated with flight hours only

<table>
<thead>
<tr>
<th></th>
<th>Annual flight Cost</th>
<th>Annual Flight Hours</th>
<th>Cost per Flight Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fleet</td>
<td>$6,255,182</td>
<td>15,408</td>
<td>$406</td>
</tr>
<tr>
<td>Contract</td>
<td>$54,627,323</td>
<td>43,265</td>
<td>$1,263</td>
</tr>
<tr>
<td>Total Usage</td>
<td>$60,882,505</td>
<td>58,673</td>
<td>$1,038</td>
</tr>
</tbody>
</table>

These rates are associated to pay item codes associated to flight hours only, doesn’t include monthly rates, availability, standby etc..

*Value of Statistical Life (VSL) $9.1 Million - U.S. Department of Transportation*
Note: Fleet aircraft and pilots occasionally move their home base location, for the latest information on where they are located you can call the Fleet Maintenance Manager in OAS-Technical Services at (208) 433-5082 for lower 48, or (907) 271-4324 in Alaska. Aircraft Locations can be found at https://sites.google.com/a/ibc.doi.gov/aviation-resources/doi-fleet
DOI’s Fleet Aircraft Inventory

DOI Fleet Aircraft: 95

<table>
<thead>
<tr>
<th># of A/C</th>
<th>Type of Aircraft</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>American Champion Aircraft 8GCBC Scout</td>
</tr>
<tr>
<td>1</td>
<td>American Eurocopter AS350B2</td>
</tr>
<tr>
<td>7</td>
<td>Aviat A-1B Husky</td>
</tr>
<tr>
<td>1</td>
<td>Beechcraft BE200 King Air</td>
</tr>
<tr>
<td>2</td>
<td>Bell 206 B-3</td>
</tr>
<tr>
<td>2</td>
<td>Bell 206 L-3</td>
</tr>
<tr>
<td>2</td>
<td>Bell 412</td>
</tr>
<tr>
<td>4</td>
<td>Cessna 182</td>
</tr>
<tr>
<td>12</td>
<td>Cessna 185</td>
</tr>
<tr>
<td>2</td>
<td>Cessna 185 - Amphibian</td>
</tr>
<tr>
<td>16</td>
<td>Cessna 206</td>
</tr>
<tr>
<td>15</td>
<td>Cub Crafters CC-18 Top Cub</td>
</tr>
<tr>
<td>2</td>
<td>DHC-2 Beaver</td>
</tr>
<tr>
<td>1</td>
<td>DHC-6 Twin Otter</td>
</tr>
<tr>
<td>7</td>
<td>Found FBA 2C</td>
</tr>
<tr>
<td>2</td>
<td>P68 Partenavia</td>
</tr>
<tr>
<td>1</td>
<td>Pilatus PC-12</td>
</tr>
<tr>
<td>8</td>
<td>Piper PA-18 Super Cub</td>
</tr>
<tr>
<td>2</td>
<td>Quest Kodiak 100</td>
</tr>
<tr>
<td>6</td>
<td>Quest Kodiak 100 Amphibian</td>
</tr>
</tbody>
</table>

The unused capacity are flight hours that could be flown based on 100 flight hours per month per pilot. Pilots on average fly 100 hours per year, using this average DOI pilots consistently exceeded the national average.

23 years is the average age of DOI’s FLEET aircraft as of 10-01-16.

Fleet Manned Pilots: 93
Fleet Unmanned Pilots: 50
Inspectors Pilots: 13
(1.12) pilots per manned aircraft

Note: A pilot to aircraft ratio of at least 1.0 or greater is desirable.

A low fleet diversity is desirable, due to savings in maintenance parts.
Unmanned Aircraft Systems

**Fy16 UAS Flight Usage by Bureau**

<table>
<thead>
<tr>
<th>Bureau</th>
<th>UAS Flight Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLM</td>
<td>80</td>
</tr>
<tr>
<td>BOR</td>
<td>20</td>
</tr>
<tr>
<td>NPS</td>
<td>40</td>
</tr>
<tr>
<td>OAS</td>
<td>12</td>
</tr>
<tr>
<td>USGS</td>
<td>8</td>
</tr>
</tbody>
</table>

**UAS SAFECOM Reporting, Completion & Mishap Rate**

<table>
<thead>
<tr>
<th>Year</th>
<th>SAFECOM Reporting Rate</th>
<th>Mishap Rate</th>
<th>SAFECOM Completion Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>200</td>
<td>67%</td>
<td>83%</td>
</tr>
<tr>
<td>2014</td>
<td>1,000</td>
<td>83%</td>
<td>100%</td>
</tr>
<tr>
<td>2015</td>
<td>1,200</td>
<td>84%</td>
<td>100%</td>
</tr>
<tr>
<td>2016</td>
<td>1,200</td>
<td>84%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**# of A/C Type of A/C**

- 200 Solo
- 5 MLB Super Bat
- 2 Apprentice
- 1 Pulse Vapor 55
- 12 Falcon Fixed Wing
- 12 Falcon Hover
FAQ’s for Unmanned Aircraft Systems (sUAS)

DOI has employed aircraft in support of its mission for over 50 years. The goal of the DOI Unmanned Aircraft Systems (UAS) program is to incorporate this new class of aircraft into DOI’s government-owned and commercially contracted fleet to support DOI missions for which UAS may be better suited than manned aircraft, achieving superior science, safety and savings.

Departmental aviation program evaluations reveal that field personnel are interested in UAS technologies and ask many questions regarding UAS use in DOI.

1. What is an unmanned aircraft system (UAS)? Definition per the FAA: “An unmanned aircraft system (UAS), sometimes called a drone, is an aircraft without a human pilot onboard – instead, the UAS is controlled from an operator on the ground. When you fly a drone in the United States, it is your responsibility to understand and abide by the rules.”


3. Why is DOI using unmanned aircraft systems? From the DOI website: “DOI missions can be hazardous to personnel, require persistent presence, and often need to be conducted without disturbing native species or visitors to our lands. Development of the UAS program within DOI will support in the accomplishment of our mission through better science, greater safety, and increased savings.” Also, resolution for data collection may be superior to other methods at a lower cost in some situations.

4. What types of unmanned aircraft systems does the DOI have? https://www.doi.gov/aviation/uas/fleet

5. What types of unmanned aircraft systems activities has DOI agencies been involved in? (https://www.doi.gov/aviation/uas/news) is a good resource for some of the projects where UAS have been applied. DOI has been exploring the application of UAS with firefighting, data collection (land and vegetation plots, resource flights, animal surveys) and search and rescue.

6. When we receive an application for a special use permit and they state they would like to use a sUAS, or drone, what guidance should we include or questions should we ask as part of the permitting process? If you have a request from parties wanting to fly drones from lands managed by your agency, they must comply with your policies and regulations regarding commercial filming permits. Bureaus are encouraged to contact their aviation managers for information if there are concerns.


8. Do agencies need flight approval to operate unmanned aircraft systems? There is a defined process for beginning a UAS program within your bureau. Refer to OPM-11 for details and contact your aviation manager. https://www.doi.gov/sites/doi.gov/files/uploads/opm-11_08102016.pdf
9. Who can receive a Certificate of Authorization (COA) to fly a UAS in the National Airspace (NAS)?

Access to the national airspace system is gained through different channels depending on the nature of the mission. Operators are trained in how to use these authorities during the basic operator course. More information can be found in OPM-11. https://www.doi.gov/sites/doi.gov/files/uploads/opm-11_08102016.pdf

10. Do I need to get approval from the FAA to fly a model aircraft for recreation? No, please read the rules for Hobby Operators https://www.faa.gov/uas/faqs/#ffr

However you cannot use your personal aircraft for any DOI business. Or use data obtained from your hobby aircraft. Only OAS approved aircraft may be used for DOI business.

11. If I fly a UAS for business purposes, such as new technology development, am I required to get approval from the FAA? Commercial operation of UAS is governed by 14CFR Part 107. DOI operation of UAS is governed by OPM-11. https://www.doi.gov/sites/doi.gov/files/uploads/opm-11_08102016.pdf


13. Do UAS have Automated Flight Following (AFF) technology to be tracked? No DOI UAS are equipped with AFF. However it is technically possible to do so if needed.

14. Do I have to notify a dispatch center if UAS will be flying a mission on my unit? Refer to your agency policy, if in doubt contact your aviation manager for more detail.

15. What’s the difference between a hobby aircraft and a commercial UAS? Hobby aircraft cannot be used for any commercial purpose. Nor can the data obtained from hobby aircraft. Any commercial use of UAS must comply with 14CFR Part 107. DOI use of UAS is required to comply with OPM-11 https://www.doi.gov/sites/doi.gov/files/uploads/opm-11_08102016.pdf

16. How will Part 107 affect the way we operate UAS and train operators? How part 107 will be integrated will be outlined in the OPM-11 which is being revised in the near future.

OAS UAS Division
Point of Contact

Brad Koeckeritz
Division Chief, Unmanned Aircraft Systems
(208) 433-5091

Steve Ramaekers
UAS Fleet Manager
(208) 433-5002

Colin Milone
Lead UAS Pilot Inspector
(907) 230-5037

Richard Thurau
Remote Sensing Specialist
(208) 912-2838
FY16 Aviation Overview

BLM

<table>
<thead>
<tr>
<th>Bureau</th>
<th>Annual Flight Hours</th>
<th>Annual flight Usage Cost</th>
<th>Cost per Flight Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLM</td>
<td>20,945</td>
<td>$ 32,236,548</td>
<td>$ 1,539</td>
</tr>
</tbody>
</table>

BLM has one of the highest SAFECOM completion rate in DOI for FY16 at 100% with 1 remaining open from 2012 to 2015. There were 128 SAFECOMs submitted which account for 31% of DOI SAFECOMS. Reporting increased by 31% from FY15.

BIA

<table>
<thead>
<tr>
<th>Bureau</th>
<th>Annual Flight Hours</th>
<th>Annual flight Usage Cost</th>
<th>Cost per Flight Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIA</td>
<td>2,272</td>
<td>$ 3,349,038</td>
<td>$ 1,474</td>
</tr>
</tbody>
</table>

BIA has one of the highest SAFECOM completion rate in DOI at 96% with 3 remaining open from 2012 to 2015. There were 27 SAFECOMs submitted which account for 6% of DOI SAFECOMS. Reporting increased by 18% from FY15.

BOEM

<table>
<thead>
<tr>
<th>Bureau</th>
<th>Annual Flight Hours</th>
<th>Annual flight Usage Cost</th>
<th>Cost per Flight Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOEM</td>
<td>545</td>
<td>$ 813,103</td>
<td>$ 1,492</td>
</tr>
</tbody>
</table>

No SAFECOM’s were submitted by BOEM in FY16, 1 SAFECOM remains open from 2012-2015.

BLM UAS Flights 2016

<table>
<thead>
<tr>
<th>Number of UAS missions</th>
<th>22</th>
</tr>
</thead>
</table>

Missions

<table>
<thead>
<tr>
<th>Type</th>
<th>3DR Solo - 26 Missions</th>
<th>Falcon Fixed - 10 Missions</th>
<th>Falcon Hover - 8 Missions</th>
</tr>
</thead>
</table>

Flight Hours

| Flight Hours | 80 |

*BLM pilots fly commercial owned government operated (COGO) aircraft in addition to fleet aircraft. Dual Function Pilots - Pilots who also have another job. (Ex. Scientist)

BIA flight hours have increased by 8% from FY15.

BOEM flight hours have increased by 62% from FY15.
FY16 Aviation Overview

**FY16 FWS Fleet Statistics**

- Manned Aircraft—60% of Fleet: 57
- Aircraft Age:
  - 0-10 Years: 21
  - 11-20 Years: 13
  - > 21 Years: 23
- Pilots: 5
- Dual Function Pilots: 37
- Pilot to Aircraft Ratio: .74

**FY16 NPS Fleet Statistics**

- Manned Aircraft—33% of Fleet: 31
- Aircraft Age:
  - 0-10 Years: 5
  - 11-20 Years: 6
  - > 21 Years: 20
- Pilots: 6
- Dual Function Pilots: 15
- Pilot to Aircraft Ratio: .68

**NPS UAS Flights 2016**

- Number of UAS Missions: 1
- Missions: A450 Training Course, Grand Canyon NP
- Aircraft System Type: 3DR Solo
- Flight Hours: 11.8

**FWS**

- FWS has one of the highest SAFECOM completion rate in DOI for FY16 at 100% with 26 remaining open from 2012 to 2015. There were 21 SAFECOMs submitted which account for 5% of DOI SAFECOMS. Reporting decreased by 5% from FY15.
- FWS flight hours have decreased by 8% from FY15.

**NPS**

- NPS has a SAFECOM completion rate at 73% with 39 remaining open from 2015 to 2015. There were 39 SAFECOMs submitted which account for 10% of DOI SAFECOMS. Reporting decreased by 24% from FY15.
- Aviation Mishaps = 1 Accident, 2 IWP
- NPS flight hours have decreased by 6% from FY15.
**FY16 Aviation Overview**

**SAFECOM**

BSEE has one of the highest SAFECOM completion rate in DOI at 100% with 1 remaining open from 2012 to 2015. There were 171 SAFE COMs submitted which account for 41% of DOI SAFE COMS. Reporting increased by 122% from FY15.

**FY16 Aviation Mishaps = 1 Incident with Potential (IWP)**

BSEE flight hours have increased by 7% from FY15.

**BSEE**

- Annual Flight Hours: 8,776
- Annual Flight Usage Cost: $9,566,500
- Cost per Flight Hour: $1,090

**USGS**

- Annual Flight Hours: 1,688
- Annual Flight Usage Cost: $1,160,874
- Cost per Flight Hour: $688

**FY16 USGS Fleet Statistics**

- Unmanned Aircraft—27% of 20 Fleet
- Aircraft Age:
  - 0-10 Years: 20
  - 11-20 Years: 0
  - > 21 Years: 0
- Pilots:
  - 0
  - Dual Function Pilots: 0
  - Independent: 1
- Pilot to Aircraft Ratio: 0.5

**USGS UAS Flights 2016**

- Number of missions: 18
- Missions:
  - Canyonlands, Flagstaff AZ, Conifer CO, Pawnee Grasslands, Wakefield KS, Glen Canyon NRA, Bluffton IN, Theodore Roosevelt NP, Flying J Ranch NM
- Aircraft System Type:
  - 3DR Solo - 9 Missions
  - Falcon Fixed - 4 Missions
  - Falcon Hover - 5 Missions
- Flight Hours: 35.3

USGS has one of the lowest SAFECOM completion rates at 38% with 8 remaining open from 2012 to 2015. There were 8 SAFE COMS submitted which account for 2% of DOI SAFE COMS. Reporting has increased by 167% from FY15.

**FY16 Aviation Mishaps = 1 Incident with Potential (IWP)**

USGS flight hours increased by 4% from FY15.

**BOR**

- Annual Flight Hours: 177
- Annual Flight Usage Cost: $169,852
- Cost per Flight Hour: $960

**BOR UAS Flights 2016**

- Number of UAS Missions: 1
- Missions: Yankee Fork
- Aircraft System Type: 3DR Solo
- Flight Hours: 6.5

No SAFE COM's were submitted by BOR and no remaining open.

BOR flight hours have decreased by 11% from FY15.
FY16 Aviation Overview

OAS

<table>
<thead>
<tr>
<th>Bureau</th>
<th>Annual Flight Hours</th>
<th>Annual flight Usage Cost</th>
<th>Cost per Flight Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAS</td>
<td>183</td>
<td>$142,182</td>
<td>$777</td>
</tr>
</tbody>
</table>

These rates are associated to pay item codes associated to flight hours only, doesn’t include monthly rates, availability, standby etc..

FY16 OAS Fleet Statistics

- Manned Aircraft—1% of Fleet: 1
- Aircraft Age
  - 0-10 Years: 0
  - 11-20 Years: 0
  - > 21 Years: 1
- Pilots
  - Inspectors: 1
  - Pilots: 16
  - Pilots to Aircraft Ratio: 17

OAS flight hours have decreased by 5% from FY15.

OSM has no flight information.

Office of Aviation Services

PERFORMANCE

<table>
<thead>
<tr>
<th>Performance</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Evaluations completed</td>
<td>12</td>
</tr>
<tr>
<td>Interagency Safety Communications Issued</td>
<td>14</td>
</tr>
<tr>
<td>Fleet Pilot Evaluations completed</td>
<td>354</td>
</tr>
<tr>
<td>Fleet Aircraft Inspections completed</td>
<td>78</td>
</tr>
<tr>
<td>Fleet Maintenance facilities inspections completed</td>
<td>4</td>
</tr>
<tr>
<td>UAS Operator Inspections</td>
<td>31</td>
</tr>
<tr>
<td>Commercial Pilot Evaluations</td>
<td>2,396</td>
</tr>
<tr>
<td>Commercial Aircraft Inspections</td>
<td>864</td>
</tr>
<tr>
<td>Point to Point Inspections</td>
<td>617</td>
</tr>
<tr>
<td>Fuel Service Vehicle Inspections</td>
<td>382</td>
</tr>
<tr>
<td>Cooperator Approvals</td>
<td>114</td>
</tr>
<tr>
<td>Technical Specifications for procurement reviewed and/ or created</td>
<td>47</td>
</tr>
</tbody>
</table>
Slide 1—Without good reporting, you don’t know what your mishap rate is. USGS mishap rate is high, due to their low flight hours. BSEE is to be commended for increasing their SAFECOM reporting rate by 55% over FY15.

Slide 2—FY16 SAFECOM management continues to improve with DOI’s reporting rate increasing by 43% from FY15, the most significant increase by BSEE.

Slide 3—SAFECOM reporting for the period (2007-2016) increased 36%, the average accident rate of 4.69 decreased by 48%.
SAFECOMs by Category

Top Maintenance Issues:
- Electrical
- Chip Light
- Engine
- Airframe
- Hydraulic
- Avionics (Radios)

Well represented Hazards Include:
- Other
- Pilot Action
- Policy Deviation
- Communications
- Instructions
- Weather

The SAFECOM system is **not** intended for initiating punitive actions. Submitting a SAFECOM is **not** a substitute for "on-the-spot" corrections to a safety concern. It’s 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. SAFECOM.gov
Did you ever think that by submitting a SAFECOM you could make a difference? Here’s just one example of a SAFECOM that did make a difference: SAFECOM 16-0437 highlighted a problem that had been around for a while but everyone just accepted it. The SAFECOM led to an Interagency Accident Prevention Bulletin for greater visibility. Here’s the story:

On June 26, 2016 an AS350 B3 was returning to the helibase after completing PSD operations when a 3”x 5” piece of the transparent plastic that covers the sphere chute on the machine broke and flew off. The qualified Plastic Sphere Dispenser Operator (PLDO) was aware that the sphere dust cover was cracked prior to launching on the mission, yet he felt there was no threat since that crack had been present for many years. After landing, the crew performed a post flight inspection but failed to identify any aircraft damage.

The next morning, the pilot conducted a preflight inspection on the same aircraft. Additionally, a mechanic performed a 50 hour maintenance inspection before the aircraft departed from the Cedar City Airport. Missions for that day included one reconnaissance flight, one crew transport flight, two sling load missions and a PSD operation totaling three hours of flight time.

After the helicopter was washed, two dents were discovered on the vertical stabilizer fin six inches below the anti-collision light. They were approximately one inch wide and three inches in length with a depth ranging from 1/8 - 1/4 inch.

The mechanic conducted a visual and structural inspection and sent pictures to the contractor’s Director of Maintenance. The Helicopter Manager informed the home unit Aviation Officer, Regional Helicopter Operations Specialist (HOS), and the DOI Maintenance Inspector of the damage to the aircraft.

The mechanic received word from Director of Maintenance that the damage was beyond serviceable limits and the stabilizer fin required replacement.

It cannot be determined for sure that the piece of plastic that departed the aircraft on June 26 struck the tail fin and caused the damage that was discovered after the aircraft wash.

There are numerous examples of things falling off or out of the aircraft that has resulted in fatal accidents, most often when they impact the tail rotor. Previous incidents have taught us many powerful and painful lessons. Continued mindfulness is required to prevent repetition of lessons already learned.

After the SAFECOM was released, several other sphere covers with cracks were later discovered by regional helicopter operations staff within the region where this occurred.

Reporting does make a difference!
Aircraft Mishap Review Board (AMRB)

DOI Bureaus and the Office of Aviation Services continued their efforts in FY 16 towards closing open Aircraft Mishap Review Board (AMRB) recommendations. These recommendations were the result of accidents that have claimed lives, caused injuries, and/or resulted in significant damage. AMRB recommendations are part of a bureau-led process aimed at preventing similar mishaps from reoccurring in the future.

In FY16, two AMRBs resulted in 9 additional recommended action items to which 4 have already been closed.

<table>
<thead>
<tr>
<th>Location</th>
<th>Date</th>
<th>Result of Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>USGS-Southeast</td>
<td>1/16</td>
<td>9 Findings</td>
</tr>
<tr>
<td>BIA-Eastern</td>
<td>03/16</td>
<td>6 Findings</td>
</tr>
<tr>
<td>BIA-Navajo</td>
<td>04/16</td>
<td>5 Findings</td>
</tr>
<tr>
<td>BIA-Southwest</td>
<td>04/16</td>
<td>5 Findings</td>
</tr>
<tr>
<td>BLM-Arizona</td>
<td>04/16</td>
<td>4 Findings</td>
</tr>
<tr>
<td>BLM-Alaska</td>
<td>05/16</td>
<td>9 Findings</td>
</tr>
<tr>
<td>FWS-Mountain Prairie</td>
<td>07/16</td>
<td>9 Findings</td>
</tr>
<tr>
<td>USGS-Pacific</td>
<td>08/16</td>
<td>8 Findings</td>
</tr>
<tr>
<td>NPS-Intermountain</td>
<td>09/16</td>
<td>10 Findings</td>
</tr>
<tr>
<td>BOR-Lower Colorado</td>
<td></td>
<td>3 Findings</td>
</tr>
</tbody>
</table>

No Material Weaknesses Found  
Total 68 Findings

FY16 Aviation Program Evaluation
Results & Performance

Department of the Interior
TRAINING BULLETIN
No. DOI TNG 17-02                         Date: January 18, 2017
Page 1 of 1
SUBJECT: Interagency Aviation Training Areas of Responsibility

Distribution: All Aviation Operations
Discussion:

The Office of Aviation Services Training Branch (OAS-TB) developed a new page on the Interagency Aviation Training (IAT) website to communicate appropriate aviation training points of contact. The page illustrates geographical assignments of each partner area with the appropriate OAS-TB contact in addition to bureau/agency contacts. Bureau/agency contacts can be viewed by placing your cursor over the map. The new page can be viewed here: https://www.iat.gov/trainers/index.asp.
FY16 Safety Improvement Opportunities

Safety Publications
As part of the DOI mishap prevention program OAS in partnership with the U.S. Forest Service publishes a variety of safety publications.
http://oas.doi.gov/

Accident Prevention Bulletins
- Aircraft Fuel Pump Cold Weather Kit
- Aircraft Fuel Filters
- Fuel Additives
- Pilot’s guide to In-Flight Icing Online Course
- Identification of Helicopter Landing Site

Safety Alerts
- UAS Intrusions Impacting Incident Air Operations
- Kodiak Quest Crew Seat Locking Mechanism

Lessons Learned
- Helicopter Load Management
- Fire Whirls
- Engine Chip Light
- Helicopter Dip Site Operations
- Assisted In-Flight Emergency

Bureau Continuous Accident Free Milestones

<table>
<thead>
<tr>
<th>Bureau</th>
<th>Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSEE</td>
<td>42 Years</td>
</tr>
<tr>
<td>OSM</td>
<td>29 Years</td>
</tr>
<tr>
<td>BOR</td>
<td>18 Years</td>
</tr>
<tr>
<td>USGS</td>
<td>9 Years</td>
</tr>
<tr>
<td>BOEM</td>
<td>4 Years</td>
</tr>
<tr>
<td>BLM</td>
<td>1 Year</td>
</tr>
</tbody>
</table>

*contributed to BSEE’s 40 year accident free milestone

In flying I have learned that carelessness and overconfidence are usually far more dangerous than deliberately accepted risks.
— Wilbur Wright in a letter to his father, September 1900

Bureau Aviation Managers

<table>
<thead>
<tr>
<th>Bureau</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIA-Joel Kerley</td>
<td>(208) 387-5371</td>
</tr>
<tr>
<td>BLM-Rusty Warbis</td>
<td>(208) 387-5448</td>
</tr>
<tr>
<td>BOR-Phoebe Purcell</td>
<td>(303) 445-3253</td>
</tr>
<tr>
<td>BSEE-Brad Laubach</td>
<td>(703) 787-1295</td>
</tr>
<tr>
<td>BOEM-Lee Benner</td>
<td>(202) 513-7578</td>
</tr>
<tr>
<td>FWS-Anthony Lascano</td>
<td>(571) 213-3021</td>
</tr>
<tr>
<td>NPS-Jon Rollens</td>
<td>(208) 387-5227</td>
</tr>
<tr>
<td>OSM-J.Maurice Banks</td>
<td>(202) 208-2608</td>
</tr>
<tr>
<td>USGS-Bill Christiansen</td>
<td>(303) 236-5513</td>
</tr>
</tbody>
</table>

Promotions and Achievements
Achievements

In-Flight Action Award

Jayson Danziger  
Contract Pilot  
Bureau of Safety and Environmental Enforcement

Wade Guillotte  
Bureau of Safety and Environmental Enforcement

Andrew Spence  
Contract Pilot  
Bureau of Safety and Environmental Enforcement

Louis Kuhn  
Bureau of Land Management

Award for Significant Contribution to Aviation Safety

This award is established to recognize an individual, group, or organization for outstanding contribution to aviation safety or aircraft accident prevention. This individual successfully helped secure state of the art aircrew safety-enhancing equipment for branch aircraft, which greatly enhanced the overall flying safety of migratory bird aircrew members who perform aerial surveys in often very remote regions of North America for many years to come.

Karen L.M. Morgan  
U.S. Geological Survey

Steve Ramaekers  
Office of Aviation Services

Gary Brennan  
Office of Aviation Services

Promotions and Achievements

Departmental Award for Outstanding Contribution to Aviation Safety

Kevin Fox
Office of Aviation Services

Airwards

Chuck Greer
Bureau of Land Management

Michael Jardell
Bureau of Safety and Environmental Enforcement
**Safe Flying Awards**

These awards are restricted to DOI employees who have distinguished themselves by safe flying for the period considered.

**Secretary’s Award of Honor**
25 years or more than 10,000 hours

- James Bredy - FWS
- Michael Hinkes - FWS
- Fred Roetker - FWS
- Mike Spindler - FWS

**Award of Distinction**
10 years or 3,000 hours

- Gary D. Brennan - OAS
- Raymond (Curtis) C. Cebulski - NPS
- Kenneth D. Fowler - OAS
- William I. James - OAS
- Arlyn E. Miller - OAS
- Colin B. Milone - NPS
- Nathan Olson - FWS
- Dave Ripetto - FWS
- Dan Stevenson - NPS
- Robert Sundown - FWS

**Award of Honor**
20 years or 7,500 hours

- James G. Castillo - OAS
- James L. Hummel - NPS
- Brian Lubinski - FWS
- James (Jim) R. Traub - NPS
- Mike Wade - FWS
- Charles Heywood—USGS

**Award of Excellence**
15 years or 5,000 hours

- Joseph H. Bussard - OAS
- Stephen Earsom - FWS
- Edward Foster - OAS
- Kevin B. Fox - OAS
- Allen Neil Gilliland - NPS
- Nick Herring - NPS
- Mark Koneff - FWS
- Maria C. Mancano - OAS
- John Rayfield - FWS
- Bradley Scetten - FWS
- Phillip Thorpe - FWS
- Jim Wortham - FWS

**Award of Merit**
5 years or 1,000 hours

- Paul Anderson - NPS
- Peter Aaron Christian - NPS
- Darry “Lynn” Ellis - NPS
- Fred H. Goodwin - NPS
- Patrick Kearney - OAS
- Terry Liddick - FWS
- Steve Mazur - NPS
- Walter Rhodes - FWS
- Robert Spangler - FWS
- Scott Taylor - NPS
- James V. Wittkop - OAS
DOI Accident Free Pilots

Bannister, Gene
Brennan, Gary
Bussard, Joe
Castillo, James
Foster, Ed
Fowler, Dale
Fox, Kevin
James, William
Kearney, Patrick
Mancano, Maria
Milone, Colin
Miller, Arlyn
Wittkop, Jim

Anderson, Anna Jo
Barnett, Heather
Bayless, Shawn
Bredy, James
Earsom, Stephen
Ellis, James
Flack, Andrew
Guldager, Nikolina
Hamrick, Harry
Hink, Mike
Kadrmas, Neil
Koneff, Mark
Liddick, Terry
Lubinski, Brian
Mallek, Ed
Mullin, Brian
Olson, Nathan
Powell, Doug
Rayfield, John
Rees, Kurt
Rhodes, Walt
Richardson, J. Ken
Rippeto, Dave
Roberts, Charles
Roetker, Fred
Scotton, Brad
Shults, Bradley
Sowards, David
Spangler, Robert
Spindler, Michael
Sundown, Robert
Thorpe, Philip
Van Hatten, Kevin
Wade, Mike
Ward, James
Wortham, James
Yates, Sarah

Babcock, Jeff
Cebulski, Raymond Christian, Peter
Drum, Gregory
Ellis, Darry
Gilliland, Allen
Goodwin, Fred
Herring, Nick
Howell, Galen
Larsen, Amy
Loach, James
Mazur, Stephen
Richotte, Richard
Sample, Scott
Sheldon, Dan
Stevenson, Dan
Taylor, Scott

Bell, Donald
Calderoni, Diego
Curl, R. Ryan
Doherty, Jonas
House, Greg
Lenmark, Paul
McCormick, Robert
Duhrsen, Jeffrey L.
Lazzaro, Joseph R.
McMillan, Seth
Meierotto, Martin
Warbis, Rusty

Heywood, Charles

Bell, Donald
Calderoni, Diego
Curl, R. Ryan
Doherty, Jonas
House, Greg
Lenmark, Paul
McCormick, Robert
Duhrsen, Jeffrey L.
Lazzaro, Joseph R.
McMillan, Seth
Meierotto, Martin
Warbis, Rusty

Burchell, Kenneth
Chittick, Kevin
Eavasick, Ryan
Haapapuro, Eric
Hertel, Jeffrey
Lindley, Jonathan
Perkins, Christopher
Ryan, Timothy
Tolson, David
Wright, Keaton

Recognizing Excellence
Promotions and Achievements
POLICY: In FY16, two AMRBs resulted in 9 recommended action items, 4 have already been closed.

POLICY: OPM-29 has been through an extensive rewrite with many bureaus giving input. Be sure to read this document located at https://www.do.gov/sites/do.gov/files/uploads/opm-29.pdf


ASSURANCE: 100% of all Plan Of Action and Milestones (POAMs) have been completed for aviation program evaluations conducted to date in accordance with OAS’s ISO 9001-2008 process requirements.

ASSURANCE: 68 Aviation Program Evaluation findings were found among 7 bureaus.

ASSURANCE: SAFECOM reporting has increased this year by 44% demonstrating the importance management has put on bringing safety concerns to light.

PROMOTION: Safe flying awards were given to 43 individuals from 4 bureaus/offices. Several Airwards for BLM and BSEE. and USGS were also awarded. Award for Outstanding Contribution to Aviation Safety was awarded to Karen Morgan from USGS, Steve Ramaekers and Gary Brennan from OAS. The Departmental Award for Significant Contribution to Aviation Safety was awarded to Kevin Fox.

PROMOTION: Bureaus maintaining excellence in aviation safety through their continuous accident-free years record include: BSEE-41 years; OSM-29 years; BOR-18 years; USGS-9 years; BOEM-4 years.