



Fiscal Year 2012 DOI Annual Aviation Safety Summary



November 2012



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DOI aviation safety and aircraft mishap prevention is based on the philosophy that all aircraft mishaps can be prevented and that mishap prevention is an inherent function of any position. **Zero aircraft accidents is every professional's goal regardless of any barriers.** Improved aviation safety reduces cost, saves lives, and drives efficiencies across all of our mission areas.

Successful aviation programs require a partnership fostering a just culture that fairly balances safety and accountability. An organization's safety culture requires the assembly of characteristics and attitudes establishing safety as an overriding priority that receives the attention warranted by its significance. It also requires components of accountability including clear expectations, required actions, and a means by which they will be evaluated.

DOI'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

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Aviation Safety



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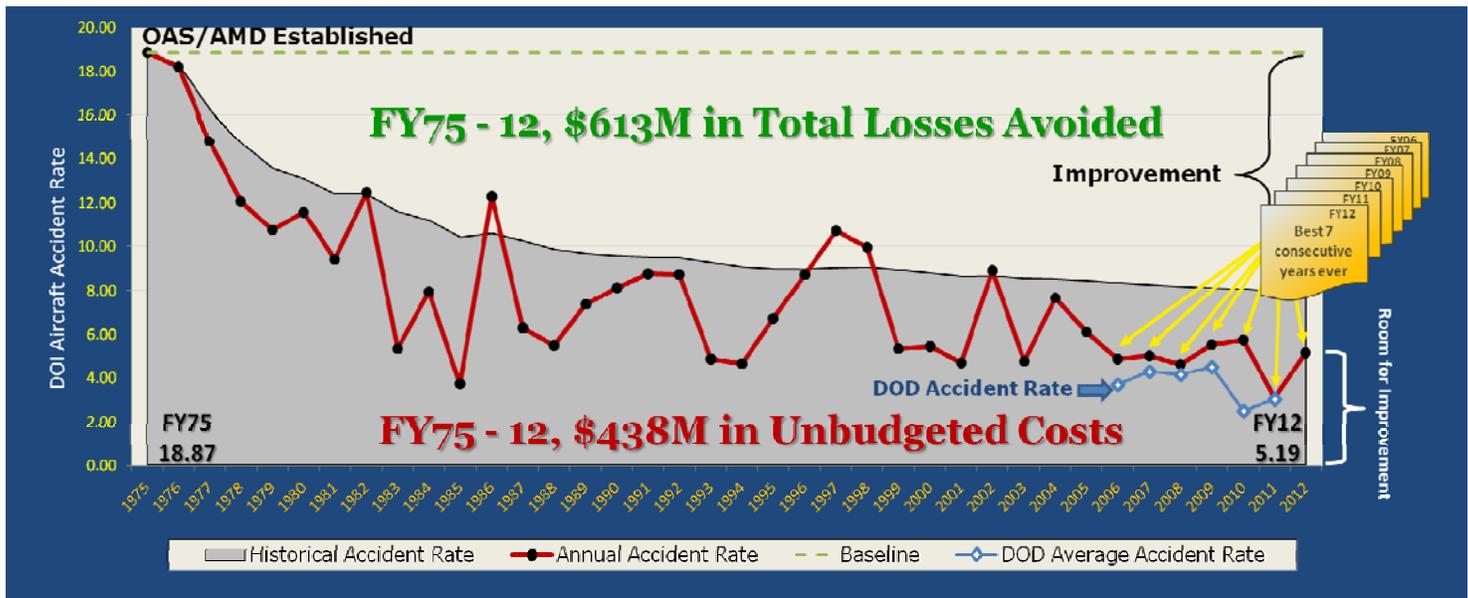


Overview

Aircraft Accident Rate

Based on accumulated flight data in FY12, the U.S. Department of the Interior (DOI) continued to **lower the historical DOI aircraft accident rate**¹ by 0.6% to 7.92 accidents per 100K flight hours with **the best 7 consecutive years in DOI history**. Unfortunately, this year's accident rate increased which further demonstrates a requirement for constant vigilance and that aviation operations are unforgiving to those who rest on their laurels.

DOI Aircraft Accident Rate History



The Department's annual aircraft accident rate² in FY12 was 5.19 accidents per 100,000 flight hours. As of October 1, 2012, flight data captured for **FY12 reported 57,830.30 total flight hours**, which is 6,721.47 hours (10.4%) less than the previous year. Flight hour data captured for FY12 was lower than expected for a high fire activity year which tends to drive up the use of aviation. This reduction could be resultant from a processing backlog of Aircraft Use Reports (AUR) due to significant changes to the financial system (FBMS) used in processing these reports. Another potential factor involves a higher percentage of AURs for flights conducted on interagency contracts processed through the USDA Forest Service financial system vice the DOI Office of Aviation Services' financial system. As a result, the actual number of hours flown for DOI in FY12 is probably higher than what was captured within the DOI system.

Since 1975, DOI's aviation safety program has resulted in estimated savings of \$613M to the Department and its supporting vendors in reduced losses³.

Flight missions performed for DOI were supported in part by: **435** bureau requested OAS supported aviation contracts, **2,087** aircraft inspections, and **3,507** pilot evaluations⁴.

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.

³Based on Federal Aviation Administration (FAA) and National Transportation Safety Board (NTSB) accident cost methodologies.

⁴Includes DOI Fleet, Commercial Vendor, and Cooperator aircraft from other agencies. Pilots receive evaluations for each specific special use mission area qualification.



Type	Airplane	Helicopter	Total Hours	Cost
Contract	16,159.9 (+38.4%)	17,017.2 (-18.5%)	33,177.1 (+1.9%)	\$102,019,956.14 (+13.9%)
Fleet	16,411.3 (-16.7%)	1,763.7 (-2.9%)	18,175.0 (-15.1%)	\$ 7,624,383.54 (-11.3%)
ARA	6,028.0 (-37.1%)	450.2 (-55.3%)	6,478.2 (-38.9%)	\$ 4,132,253.31 (-28.6%)
Total	38,599.2 (-5.8%)	19,231.1 (-18.5%)	57,830.3 (-10.4%)	\$113,776,592.99 (+9.4%)

(Percentages are increases or decreases from FY11)

FY12 Annual accident rate = $\frac{3 \text{ reportable accidents}}{57,830.3 \text{ reportable DOI flight hours}}$ * 100,000 = **5.19 accidents / 100,000 hours**

Historical accident rate = $\frac{258 \text{ reportable accidents}}{3,257,303.4 \text{ reportable DOI flight hours}}$ * 100,000 = **7.92 accidents / 100,000 hours**
(38 fiscal years)

In FY12, DOI experienced a 10.4% reduction in total flight hours¹ and a 9.4% overall cost increase. There was a significant increase in the utilization of contracted fixed-wing aircraft while rotary wing aircraft and other procurement types all show a decrease in usage.

As previously stated, commercial aircraft reported values may be lower than actual due to AUR and other processing changes.

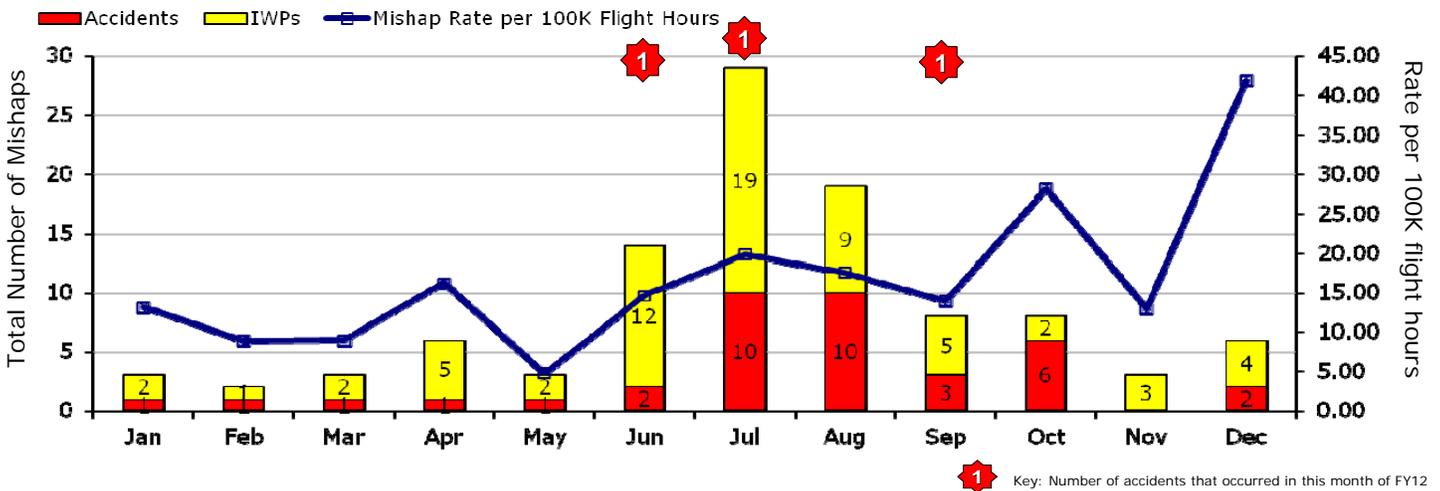
Accident and IWP Costs Total DOI and related commercial vendor aircraft accident costs for the three accidents experienced in FY12 are estimated to be \$9.08M, up from \$124K in FY11. This dramatic increase was primarily resultant from two fatalities. Total cost for the four FY12 DOI Incidents-With-Potential (IWP) is estimated to be \$127K, down from \$269K in FY11.

Onsite Investigation Costs OAS's average per aircraft onsite unprogrammed² accident investigation cost for the three aircraft accidents in FY12 was \$3,866.67. There were no unprogrammed IWP investigation costs. Lessons learned from the investigation of one aircraft accident or IWP can prevent the occurrence of a future accident resulting in a substantial monetary return on the investment of resources in accident and IWP investigations.

FY12 Accident Prevention Products AMD collaborated with the bureaus and USFS in producing and distributing 4 Accident Prevention Bulletins, 7 Safety Alerts, and 3 Lessons Learned.

Aviation Safety Training Delivered 46,864 total course completions. 38,121 online module, 617 webinar, 5,601 classroom, and 2,525 IAT workshop completions were delivered to DOI and interagency personnel.

Mishaps by Month FY2003—2012



¹Flight Hours are gathered from Aircraft Use Reports entered into the Aviation Management System (AMS).

NOTE: Not all flight hours reported for FY12 by the end of the fiscal year on September 31, 2012 were captured in AMS. A significantly larger backlog than past years occurred due to a change in financial systems that impacted the processing of Aircraft Use Reports submitted by vendor aircraft operators.

²Unprogrammed costs are those not covered in the service level agreement between OAS and the bureaus and are not part of the bureaus' programmed budget but must still be paid by the bureau to cover the unforeseen costs of the mishap investigation.



Safety Policy

Raise safety standards, increase efficiency, and promote economical operations

AMD is now OAS again, although the “A” now stand for “Aviation” this term better reflects the wide ranging elements to which we serve. The Department of the Interior recently reviewed some of its programs in order to determine if their functionality was appropriately aligned under their respective management structures. The study clearly identified an opportunity to improve the alignment of the Department’s aviation oversight and management functions to the Office of the Secretary. In short, the Aviation Management Directorate is now the Office of Aviation Services (OAS) and is no longer under the National Business Center (now called the Interior Business Center). OAS has been relocated under the Deputy Assistant Secretary for Public Safety, Resource Protection, and Emergency Services (DAS-PRE). The resultant net change will increase efficiency and enhance safety by improving support for bureau missions through better alignment with executive leadership and Departmental goals.

OAS was originally established in 1973 to “raise the safety standards, increase the efficiency, and promote the economical operation of aircraft activities in the Department of the Interior” in support of bureau missions. We strive to continue that role as we transition to our new parent organization.

In 1972, the Department commissioned a study that recommended:

Creation of an Office of Aircraft Services at the Departmental level with responsibility to:

- ⇒ Coordinate and direct all Departmental aircraft by assignment or direct control.
- ⇒ Establish and maintain Departmental air operations standards involving safety, procurement, and utilization.
- ⇒ Budget for and financially control all aircraft owned/operated by the Department.
- ⇒ Provide technical services to bureaus for aircraft related problems.

Office of Aviation Services (OAS) today:

Highly experienced, mission-focused aviation management professionals to safely, efficiently, and economically support bureau requirements and Department goals.

>900 years of cumulative industry and government aviation management experience.

OAS pilots average >11,000 total hours, across >100 aircraft types in high risk/tempo operations.

What OAS will do for our partner bureaus:

1. Facilitate safe, effective, economical aviation support for missions.
2. Research, advise, and facilitate strategic opportunities.
3. Advocate for requirements.
4. Assist in meeting federally mandated aviation management requirements.

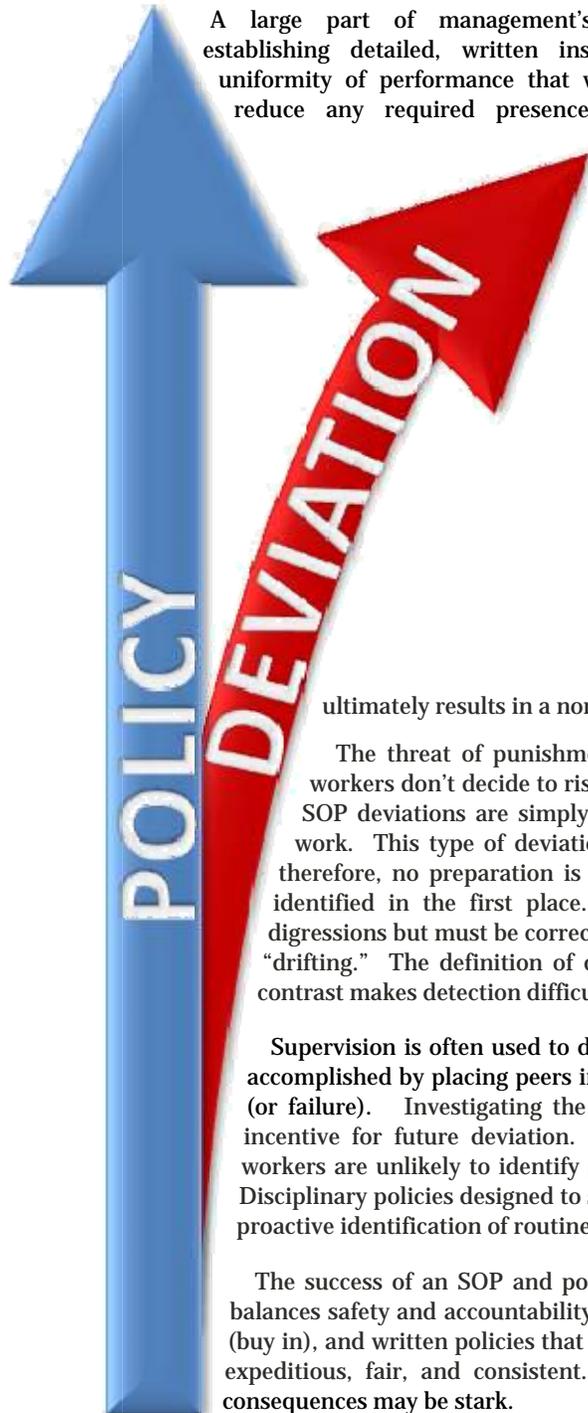
WHAT OAS DOESN'T DO:

1. Define the bureau’s strategic aviation vision and objectives.
2. Direct the strategic opportunities bureaus currently pursue.
3. Manage bureau aviation programs.
4. Exercise operational control of bureau missions.



POLICY DEVIATION

Last year's publication included a piece covering policy and making it real in the operational arena vice a collection of anonymous words that reside unobserved on bookshelves or in cyberspace. So what do we do when these established safeguards (i.e. policies and procedures) are violated? Does your policy address what to do when violations occur? Does it account for the degree of egregiousness or whether it was willful or accidental? It may be fairly unrealistic for a single policy document to address all of these issues but that doesn't relieve management's responsibility of enforcement and dealing with the infraction in a rapid, fair, and consistent manner.



A large part of management's challenges involve establishing detailed, written instructions to achieve uniformity of performance that will either prevent or reduce any required presence from management.

Standard Operating Procedures (SOP) are the foundation for ensuring that the majority of operations are routinely conducted in a safe and efficient manner. An SOP is a set of written instructions that document a routine or repetitive activity followed by an organization. The development and use of SOPs are an integral part of a successful quality system as it provides individuals with the information to perform a job properly and facilitates consistency in the quality, safety, and integrity of the desired outcome. Occasionally, procedures can be perceived to reduce productivity which then leads to what often seems to be a natural human tendency to deviate. Such deviations aren't necessarily malicious violations (e.g. motivated by laziness or cheating) as they can be well-meaning attempts to manage a high workload (including task saturation), to simplify complexity, or to cope with situations that were not envisioned. While SOPs are prescribed in order to set boundaries for safe operations, individuals may experiment with the boundaries in their attempts to become more productive. This leads to adaptations of procedures and a shift beyond boundaries prescribed in the SOPs toward potentially unsafe practices. With sufficient repetition, deviations become routine and workers stop recognizing their actions as deviations. This

ultimately results in a normalized risk tolerance that negatively impacts a safe working culture.

The threat of punishment is not a deterrent because these deviations are no longer deliberate as workers don't decide to risk punishment by deviating, they just no longer realize they're deviating. Some SOP deviations are simply adaptations. Adaptations occur when humans adapt their behavior to their work. This type of deviation can pose the most danger as it is no longer "planned" or "conscious" so therefore, no preparation is made to mitigate the increased risk as the hazards were never recognized/identified in the first place. Many deviations that develop into routine practices are not deliberate digressions but must be corrected regardless. This often originates within a process commonly referred to as "drifting." The definition of drifting can be summarized as "a gradual change." The absence of a stark contrast makes detection difficult by not just supervisors but peers as well.

Supervision is often used to detect deviations and bring them to the attention of workers. This can also be accomplished by placing peers in a mentoring position where they become a stakeholder in the SOP's success (or failure). Investigating the causes of such deviations can also help improve procedures to reduce the incentive for future deviation. Without increased supervisory surveillance to identify routine deviations, workers are unlikely to identify practices that were no longer conforming to established procedure or policy. Disciplinary policies designed to stop conscious deviations require a rapid, broad impact that's accompanied by proactive identification of routine deviations.

The success of an SOP and policy compliance lies within the interoperability of supervisory oversight that balances safety and accountability (just culture), peer enforcement that culminates from employee engagement (buy in), and written policies that provide a framework for corrective action participants to work within that are expeditious, fair, and consistent. Don't let your unit "drift" you and others into an area of peril as the consequences may be stark.

¹ J. Rasmussen, "Risk management in a dynamic society: a modeling problem," *Safety Science*



DOI AVIATION SUMMIT

In anticipation of the OAS organizational change, DAS-PRE Kim Thorsen held a summit on June 21, 2012. It gave Bureau Deputy Directors the opportunity to meet the OAS senior staff, learn about the current DOI aviation program and how each bureau employs aviation to support missions, engage in interactive discussion to fully understand key principles of program execution – safety, financial management, operational delivery, training, and technical services – and strategize about opportunities to enhance the overall program. This summit was an executive level strategic conversation about the Department's aviation program and road mapping towards future improvements.

Individual bureaus each provided an overview of their aviation program, creating a learning opportunity for all. An overview of the Departmental OAS program was presented providing historical information about the OAS program, purpose, legal requirements, and organizational structure in detail.

There was an in depth discussion on potential strategic opportunities within the Departmental aviation program. The opportunities included Aviation Safety (hazard reporting, human factors, and aviation safety training), Fleet Management (aircraft utilization, diversity, aircraft aging, and replacement reserve), Commercial Air Services, and Unmanned Aircraft Systems (UAS).

A *Comprehensive Overview of the DOI Aviation Program* was developed and provided by OAS to assist bureau leadership in this discussion. This overview included:

- a. Historical information about the OAS program, purpose, legal requirements, and organizational structure in detail .
- b. Seven strategic opportunities in the aviation program including context/background, suggested next steps, and thought provoking questions that might help executives explore their unique aviation programs and how we can collaborate as we move forward.
- c. Thoughts on guiding principles as we build a governance structure designed to ensure we are accountable, making decisions at the right level, fairly representing all unique bureau missions, and ultimately accomplishing our Department's mission to safely execute our aviation program in support of bureau missions.
- d. Bureau executive summaries about their aviation program prior to and including 2011.

The Bureau Deputy Directors represented at the forum all supported further exploration of these strategic opportunities in the future with the addition of a new governance structure in DOI aviation.

With this summit, management was able to take a fresh look at the aviation program, how we execute it, and how we ensure we are transparent, accountable, and efficient. The forum provided an open, constructive, and interactive conversation that identified opportunities to enhance and improve the Department's aviation program.

With the organizational change, the IBC (Interior Business Center) Acquisition Services Directorate (IBC-AQD) continues to provide acquisition services, including contracting the commercial aircraft services for the bureaus. The IBC Financial Management Directorate continues to provide support for payments, IPACs, and other financial transactions related to fleet and contract aircraft usage.

OAS provides a wealth of knowledge and expertise in the aviation industry and stands ready to work collaboratively with all stakeholders as we move forward.



OTHER FY12 OAS SAFETY IMPROVEMENTS

This past fiscal year, OAS made significant progress on a number of safety initiatives. These initiatives include AFF, ELTs, wire cutters, and inspection programs.

For commercial aviation contracts, OAS garnered the lessons from previous mishaps, as well as inputs from our Bureau customers, and began changing our contract specifications to require AFF tracking capability (or an Iridium satellite based equivalent for ARA contracts) for all flights involving DOI personnel as passengers or crewmembers. This change will enable Bureaus to monitor the progress of contract flights and provide vital last known position information should the aircraft become overdue.

Similarly, this past year began a requirement for installation of the 406 MHz Emergency Locator Transmitter (ELT) on all fixed wing aircraft under contract to the Department. The 406 MHz ELT actually complements the capability of installed AFF systems by sending out a coded digital distress signal to the COSPAS/SARSAT satellite constellation at the very time one would expect an AFF to fail - immediately following impact. In addition, the TSO-C126 406 MHz ELT offers significantly improved reliability (in terms of lower false alarm rate, higher activation rate) than the older TSO-C91a 121.5 MHz ELTs. Although the FAA does not currently require ELTs on helicopters, OAS now requires at least a TSO-91a ELT with external activation switch, on all fleet and contracted helicopters. This specification provides Search and Rescue (SAR) assets with the ability to home in on its audible signal.

OAS began to require wire cutters on all contracted helicopters for which these devices are available. This position was endorsed by both the Forest Service and HAI as a highly

valuable safety device. Although wire strikes are infrequent, the risk is very real as evidenced in the wire strike mishaps that occurred in 2010 and 2011.

OAS is also in the process of implementing a number of policy initiatives designed to improve the qualification of our aircraft inspectors and standardization of inspection programs. OAS Instruction 6700-202 was completely reworked to remove "pseudo forms" that were imbedded in the document and replaced them with standalone OAS forms. More importantly, this instruction added the requirement for all aircraft inspectors to receive FAA airworthiness training in their first three years of employment. A version of this training is currently provided to FAA FSDO aircraft inspectors and Forest Service aircraft inspectors as well. The objective of this new requirement is to enhance our aircraft inspector's ability to detect aircraft conditions which might affect aircraft safety while they perform their contract compliance inspections. Instruction 202 also requires all inspectors to receive an annual "Over the Shoulder" evaluation from a HQ OAS standardization inspector.

OAS Instruction 6700-204 was created to replace a previous Instruction requirement for each inspector to fly 24 hours per year in category with a program that required quarterly event based currencies. Under the previous policy, inspector pilots could satisfy much of their currency requirements with point-to-point flights which met the time requirement but did not promote a minimum level of proficiency in the mission related skills required. The new EBC program, which was modeled after a similar program used by the FAA, requires pilot inspectors to perform a certain number of events each quarter.

BUREAU AVIATION MANAGER—POINTS OF CONTACT

Below is a handy list of National Bureau Aviation Managers you can contact in regard to your bureau's aviation program:

- Bureau of Indian Affairs, Joel Kerley (208) 387-5371**
- Bureau of Land Management, John Gould (208) 387-5448**
- Bureau of Reclamation, Jim Keiffer (303) 445-2044**
- Bureau of Safety and Environmental Enforcement, Brad Laubach (703) 787-1295**
- U.S. Fish and Wildlife Service, Anthony Lascano (703) 358-2059**
- National Park Service, Jon Rollens (208) 387-5227**
- Office of Surface Mining, J. Maurice Banks (202) 208-2608**
- U.S. Geological Survey, David Johncox (303) 236-9171**





Risk Management

FY 2012 Mishap Summary

FISCAL YEAR 2012 MISHAP SUMMARY

Location	Date	Severity	Operator	Aircraft
Lowman, ID	Feb 16, 12	IWP	Fleet	Bell 206B-III
Modena, UT	Jun 3, 12	Accident	Vendor	P2V-7
Fairbanks, AK	Jun 25, 12	IWP	Vendor	Air Tractor Fireboss
Cedar City, UT	Jul 12, 12	IWP	Vendor	Air Tractor 802A
Luray, VA	Jul 5, 12	IWP	Vendor	Cessna 337G
Elko, NV	Jul 23, 12	Accident	Vendor	Rockwell AC500S
Anchorage, AK	Sep 30, 12	Accident	Fleet	Kodiak 100



FY12 Mishap Trends

We've all heard the saying "when it rains, it pours." Well, in a seven week period, DOI experienced two accidents and three IWPs. All associated with fire suppression operations.

- ⇒ FY12 saw the tragic deaths of two air tanker pilots flying in support of fire suppression operations.
- ⇒ Of the seven aviation mishaps (3 accidents and 4 IWPs), five mishaps (**83%**) occurred while conducting fire support/suppression operations.
- ⇒ Human factors were contributing factors in **91%** of all the mishaps that occurred in FY12.
- ⇒ **33%** involved spatial disorientation and controlled flight into terrain (CFIT).
- ⇒ **33%** occurred during takeoff.
- ⇒ And one just flat ran out of fuel.

Appropriate supervision and planning are essential to safe and effective operations. There is no mission worth dying for.



OFF-AIRPORT OPERATIONS

In the last five years, the percentage of all DOI mishaps that occur during off-airport landings has increased from **14%** to **38%**. In Alaska, they increased from **45%** to **78%**!

While off-airport operations are required for bureaus to successfully accomplish their missions, they expose DOI personnel to an environment containing additional risk that must be mitigated as much as possible. The following factors have contributed to many recent DOI mishaps involving off-airport operations:

Normalized Risk Tolerance

- ◇ Divergence from national or regional DOI Policy intent by subunits (e.g. individual Parks)
- ◇ Unmet aviation training requirements
- ◇ Lack of policy awareness by managers or subjective policy interpretation
- ◇ Lack of personal protective equipment (PPE)
- ◇ Lack of proper/formal risk management that ensures hazard identification, assigned risk, and mitigation
- ◇ Risk management decisions not made at the appropriate level
- ◇ Lack of standardized training
- ◇ Inadequate skills required for certain types (difficulty) of off-airport environments
- ◇ Inappropriate equipment (aircraft) selection



When we examine policy dealing with off-airport operations, we find differences exist not only between bureaus, but between subordinate units and their own national policy.

OPM 11-29 defines **Point-To-Point** transportation as Flights between airports (excluding operations defined as Special Use) where the route of flight is determined by the pilots, based on navigational requirements. BLM national policy goes further to say that a **“Point-to-Point”** flight is one that originates at one **developed** airport or permanent helibase and flies directly to another **developed** airport or permanent helibase with the sole purpose of transporting personnel or cargo (this term does not apply to flights with a scheduled air carrier on a seat fare basis).

In OPM 11-29, **Special Use Activities** are defined as operations involving the utilization of airplanes and helicopters in support of DOI programs **which are not point-to-point flight activities** and which require special control measures due to their inherently higher risk. This may require deviation from normal operating practices where authorized by DOI Aviation Management. Special pilot qualifications and techniques, special aircraft equipment, and personal protective equipment are required to minimize risk to personnel and property. These activities include: **wheel operations on unprepared landing areas**.

The following definitions of “Special Use” are taken from Bureau Policy Manuals:



Special Use Flight Operations (RM 60). “Special use,” is defined as any flight operation other than point-to-point.



Unimproved Landing Areas (RM 60). Fixed wing (airplane) operations using unimproved landing areas are considered a special use operation by the Departmental Manual and require special pilot and or equipment qualifications.



Special Use Activities (330 FW 3). Special use activities are aviation operations that require special equipment, techniques, or skills. Examples include, but are not limited to: ...Wheel/ski/floats operations on unprepared landing areas (airplane) that are not regularly used.



Special Use flight operations (2011 Alaska State Aviation Plan) are operations that involve the utilization of airplanes and helicopters which are not point-to-point flight activities and which require special control measures due to their inherently higher risk. These activities include: wheel operations on unprepared landing areas.

Unfortunately, the definition of an “unprepared” landing area within different policy documents are often inconsistent with one another. For example, one Bureau’s policy states that fixed wing (airplane) operations using unimproved landing areas are considered a special use operation by the Departmental Manual and require special pilot and or equipment qualifications. Another policy defines “unprepared” as any non-maintained off airport area used to land an airplane that has not been previously evaluated and landed on by the pilot with the existing environmental and terrain conditions. Others consider a site to

be “unprepared” if it is off airport and the pilot has no personal knowledge of the landing area and has not landed there previously.

Last Summer, the Alaska Regional Office and Alaskan bureaus clarified the definition to include the following definition:

Vendor Operations/Contractual Changes - Landing areas identified within the Alaska Supplement can be considered for point to point operations. Any other landing areas are to be treated as special use as per the recent change to the AMD Aircraft Rental Agreement (Alaska), Section B, Supplement B22.6.1.1:

- e. Exception for airports that do not meet the criteria above: AMD Alaska Regional Office will maintain a list, by name and geographic coordinates, of other acceptable airport landing areas that have been submitted by the DOI Bureau Regional Aviation Manager (or equivalent) and approved by the AMD AKRO Regional Director for point to point flights under this contract. The list will also be posted on the AMD website: <http://amd.nbc.gov/akro/aktech/aktechland.htm> Prior to departure, contract pilots tasked to land at one of these AMD approved landing areas must contact the Bureau point of contact shown on the approval list to verify current runway status and conditions.

When planning off-airport operations, your safety and the safety of others depend on applying the policy correctly. Take time to ensure the right aircraft, the right PPE, proper risk assessment, and flight following are in place before you go.

Air Tanker Performance

Tanker Maneuverability Margin Comparisons

SEAT operate closer to stall

SEAT has the lowest mission rate of climb

SEAT release closest to the ground

Aircraft	Ratio
SEAT	1.25
P2V	1.55
P-3	1.64
B747	1.3

Aircraft	Rate of Climb (ft/min)
SEAT	860
P2V	1760
P-3	1840
B747	3800

Aircraft	Release Height (ft)
SEAT	60
P2V	160
P-3	160
B747	400

AT-802 operates 60% lower Height Above Terrain than the P2V-7
AT-802 has a release to stall ratio 19% lower than the P2V-7

Ever wonder how airtankers compare to each other in terms of operational performance in the fire environment?

The following chart is a comparison between an AT-802, P2V, P-3, and 747.

From the information presented, which aircraft do you think has the greatest operational risk?

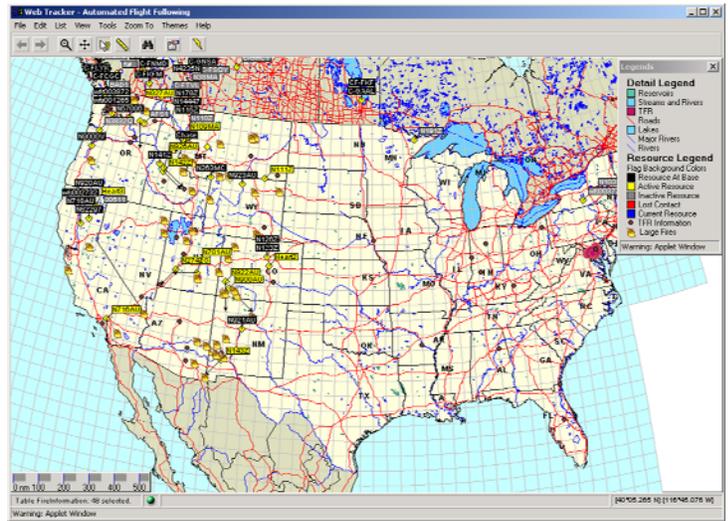
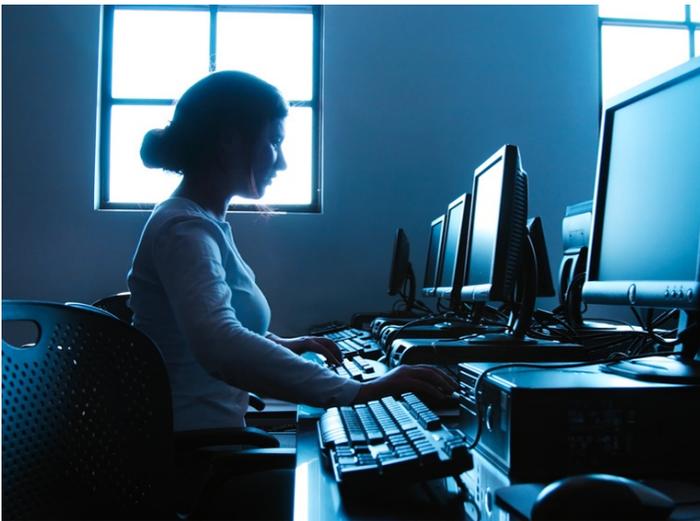
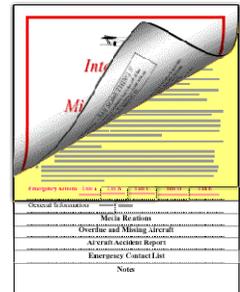


Automated Flight Following and Your Flight Following Program – It’s Not “Automated”

The Department’s implementation of Automated Flight Following (AFF) in both fleet and vendor aircraft continued to increase during the last fiscal year (FY). This is good news as AFF is a wonderful tool as long as it becomes a part of your organization’s flight following system and not relied upon to satisfy all of the elements within an approved flight following program. Unfortunately, many over-rely on the fact that AFF provides the basic capability to allow you to observe your flight at any given moment. The key word here is “capability” and what lacks is the inclusion of a person to monitor and take appropriate action in a timely manner in the event the AFF equipment indicates that there may be a problem on board the aircraft. 352 DM 1.4B states:

Pilots are responsible for flight following with the FAA, the appropriate ICAO entity, in accordance with a bureau-approved flight following program, or in accordance with an NBC AMD Associate Director-approved vendor flight following program specified in a NBC AMD procurement document. Position reporting shall not exceed 1-hour intervals under normal circumstances.

This section in the DM continues to provide requirements involving a flight following program that’s been approved by the Bureau Director and actions to be taken in the event of a missing over overdue aircraft. So what is a “program” and how does AFF fit in to it? The definition of a program is a plan or system under which action may be taken towards a goal. The definition of a component is a constituent part or ingredient. AFF is a great component to an approved flight following program that contains a system of components that enables immediate and appropriate action to take place in an acceptable period of time. Unfortunately, we have many examples where AFF was limited as a tool in the investigation process after the mishap had occurred. In other words, AFF will afford you the opportunity to act in a timely and appropriate manner but only if someone is watching and is properly trained to react in accordance with a customized, current, and well tested mishap response plan. The Interagency Mishap Response Guide (<http://amd.nbc.gov/safety/library/iamrp.html>) is a great tool for units to use in building their response plans.



The time that passes after an aircraft goes missing is critical. Relying solely on an FAA flight plan for flight following can delay detecting an overdue aircraft by hours. For example, an aircraft with four hours of fuel on board that goes down in the first hour of their flight won’t be determined as overdue until 30 minutes after their flight plan fuel time expires, or 4:30 after takeoff. It will require even more time for Search and Rescue (SAR) assets to be dispatched once they determine that your aircraft is officially overdue or missing. Add in time to travel to the search area and you can easily surmise the amount of valuable time that has been lost – especially if there are injuries or if the environmental conditions reduce survivability or both.

AFF is a wonderful component but is very limited when not part of your organization’s approved flight following program that includes a timely and appropriate response to any indication of trouble that AFF provides.



Promotion Awards & Recognition

FY2012 ACHIEVEMENTS

In recognition of individuals, groups, and organizations for exceptional acts or service in support of aviation safety and aircraft accident prevention the following awards have been given in FY2012.

Secretary's Award for Outstanding Contribution to Aviation Safety

This award is restricted to DOI employees and only one such award shall be presented annually.

Recipient: **Stephen V. Rauch**, Aviation Management
Directorate/Bureau of Safety and Environmental Enforcement

Award for Significant Contribution to Aviation Safety

This award was established to recognize significant contributions to aviation safety or accident prevention within DOI. This award is restricted to DOI employees only.

Group Award to **Northern Rocky Mountain Science Center**, U.S. Geological Survey

Group Award to **Fort Collins Science Center**,
U.S. Geological Survey

Individual Award to **Brian Stemper**, U.S. Fish and Wildlife Service

Airward

This award was established to provide timely recognition to any individual who has demonstrated positive behavior or actions promoting DOI aviation safety, such as correcting a hazardous situation, submitting a good idea, or just making a difference.

Individual Award to **Don Bell**, Bureau of Land Management

Individual Award to **Scott Dewitz**, Bureau of Land Management

Individual Award to **Pierre Haure**, Bureau of Safety and Environmental Enforcement

Individual Award to **Conan Donnelly**, Bureau of Land Management

Group Award to **Cedar City Interagency Fire Center**,
Bureau of Land Management





YOUR MISHAP RATE, is it really down?

It's often been said that data on its own is a dangerous thing. When we discuss mishap rates most people fixate on the numeric and forget to associate other data that's required in order to accurately assess this vital safety related performance measure.

WHAT OTHER DATA?

Safety is occasionally defined as the absence of danger and makes actual (or organizational) safety difficult to measure. What are normally measured to indicate the level of safety are the failures that have resulted in unwanted incidents (i.e. mishap rates). Even acceptably low numbers of such failures are falsely used to indicate success for organizational safety. Leading performance indicators are used in conjunction with failures in order to more accurately assess organizational safety. These indicators are based on the inputs and actions that organizations or individuals take to manage risks and improve performance in various situations.

OAS's Aviation Safety and Program Evaluation Division periodically conducts trend analysis on the Department's mishap rate. Data is gathered and stored in the Interagency Aviation Accident Database (IAAD), the SAFECOM system, and the Legacy Aviation Management and Finance System (AMS). Statistical analysis has revealed a relationship between mishap rates and voluntary hazard reporting rates that can be used as a measure of the organization's safety culture. Due to DOI's composition of several nationwide bureaus with their own distinct aviation culture and subcultures, analysis can be broken down to the bureau and regional level. Additionally, each bureau possesses differences in vendor and fleet operations as well as fixed wing and rotary wing programs that can be quantified and measured.

OAS Program Evaluations provide objective independent assessments related to administration, operations, safety, and training aviation programs. These evaluations are utilized in an oversight capacity in order to identify material weaknesses and correct deficiencies. AMD Safety & Program Evaluations Division performed an extensive review of DOI aviation accident and Incident With Potential (IWP) data (both hereafter referred to as "Mishap"). A comparative analysis involving mishap rates, SAFECOM reporting rates and trends between fleet and vendor communities illustrate management practices and other culture related issues.

The Relationship between Mishap Rates and Voluntary Hazard Reporting

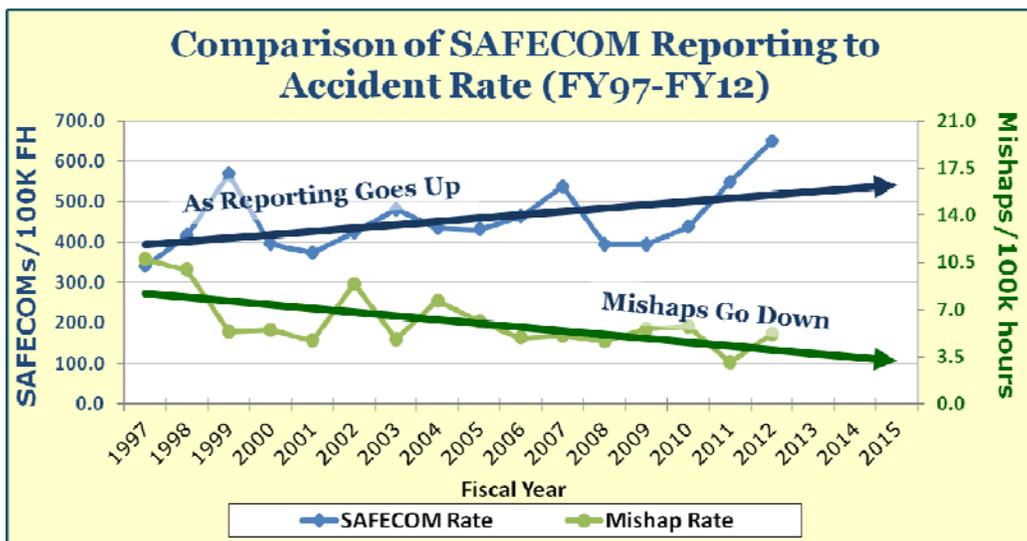
One indicator of a safety culture is the amount of voluntary hazard

reporting that occurs. James Reason, a professor of psychology and leading authority on safety culture, has identified a reporting culture, in which people are willing to report errors, as a key characteristic of an organizational culture that makes safety a priority. The Department of the Interior commissioned OAS to create a hazard reporting system for aviation users as means to fulfill the Aviation Mishap Information System (AMIS) requirements for mishap reporting. By measuring the amount of SAFECOM reporting practiced by each organizational unit, one should be able to measure some level of safety culture.

As indicated in the chart provided below, one can observe that a relationship between DOI SAFECOM reporting rates and mishap rates exists. In years where reporting increases, the mishap rate decreases and when reporting decreases the mishap rate tends to increase. Trending is a vital component to understanding your organizations general movement in relation to its desired direction. The greater the frequency of updated data, the better data driven decision that can be made as it's required to ensure they're made in a timely manner in order to enable proactive mishap prevention measures.

Use Leading Indicators and Compare

Using a myriad of leading indicators will help ensure that your organization possesses the assembly of characteristics and attitudes that establishes safety as an overriding priority. Benchmarking within your own organization is a good place to start but requires an exit strategy towards external benchmarks in order to ensure continual improvement. SAFECOM reporting and mishap rates (combined) are a great place to start but don't stop there. Assess what type of data your organizations would benefit from and determine collection methods and other items that would be required to capture it. It's an investment that will yield a significant return.

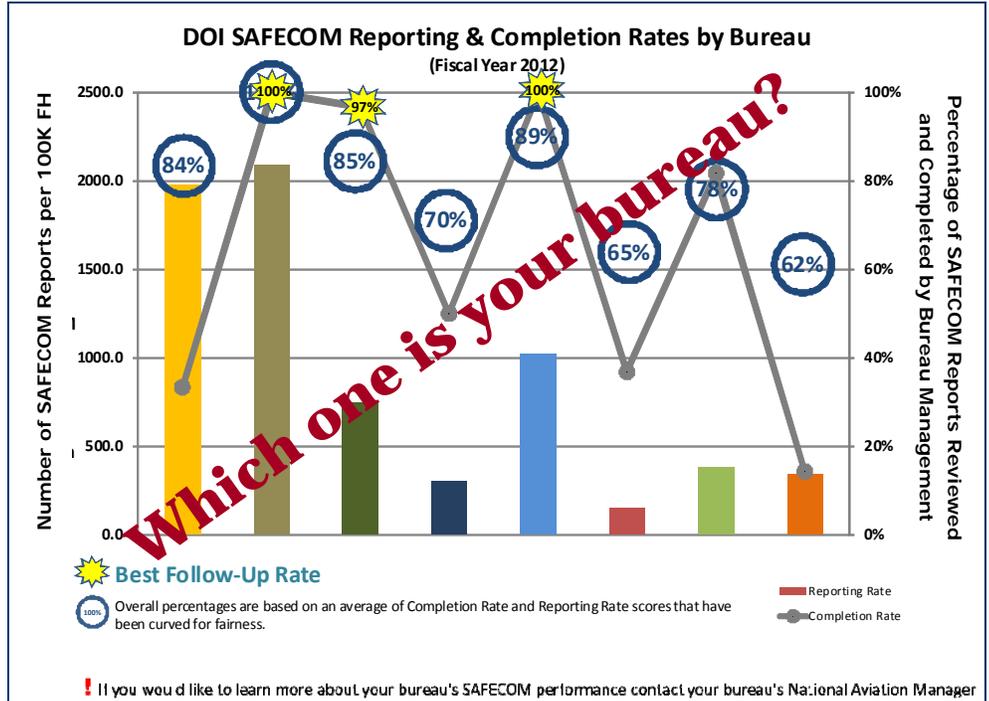




SAFETY IMPROVEMENT OPPORTUNITIES

Industry studies have verified a correlation between increasing voluntary hazard reporting and decreasing mishap rates. The Department uses the SAFECOM system as its primary vehicle for voluntarily reporting aviation activity hazards and identifying safety improvement opportunities. As a counterpart to reporting, assigned managers within the system are responsible for reviewing the reports, ensuring corrective actions were taken, and preparing the report for public viewing so that others may benefit from the lessons learned.

In an attempt to measure the maturity of the Department's safety culture, the Aviation Safety & Program Evaluations office performed an analysis of SAFECOM reporting rates (per 100,000 flight hours) compared to SAFECOM completion percentages (the number of SAFECOMs managers completed over the total number submitted). The combined score illustrates an approximation of how developed the safety culture is in comparison to other bureaus and also demonstrates where the strengths and weaknesses exist in each bureau's voluntary hazard reporting program.



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 aimed at raising safety awareness.

Accident Prevention Bulletins

- DOI APB 12-01, 1 Million Acts of Safety
- IA APB 12-01, Wind Effects on Idling Rotorcraft
- IA APB 12-02, Lithium Batteries
- IA APB 12-03, Helicopter Exterior Water Delivery Systems

Safety Alerts

- DOI SA 12-01, Quest Kodiak Fuel Indication Malfunction
- IA SA 12-01, Helicopter Cargo Hauling Equipment Rev. 1
- IA SA 12-02, Aerial Supervision
- IA SA 12-03, Aviation Radio Frequencies
- IA SA 12-04, Aerial Supervision
- IA SA 12-05, Helicopter Water Drops

Lessons Learned

- DOI LL 12-01, Bettles, AK
- DOI LL 12-02, Kodiak Aircraft Wind Damage
- IA LL 12-01, Aircraft Fuel Contamination

BUREAU CONTINUOUS ACCIDENT FREE MILESTONES FY2012



BSEE — 38 Years



OSM — 26 Years



BOR — 15 Years



USGS — 6 Years



BIA — 5 Years

NPS — 1 Year



Fiscal Year 2012

Accident Free DOI Pilots

Recognizing Excellence

OFFICE OF AVIATION SERVICES



Castillo, James
Davidson, Ben
Foster, Edward
Fowler, K. Dale
Howell, Gilbert
James, William
Kearney, Patrick
Mancano, Maria
Miller, Arlyn
Palmer, Earl Jr.
Stone, Bart

BUREAU OF LAND MANAGEMENT



Bell, Donald
Curl, R. Ryan
Duhrsen, Jeffrey L.
House, Greg
Lazzaro, Robert
Lynn, Michael
McCormick, Robert
Stright, John
Warbis, Rusty

BUREAU OF INDIAN AFFAIRS



Amicarella, Michael

BUREAU OF RECLAMATION



Norton, Michael
Shanen, Geoffrey

FISH AND WILDLIFE SERVICE



Barnett, Heather
Bayless, Shawn
Bedingfield, Isaac J.
Bennett, Timothy
Beyer, Duston
Bollinger, Karen
Bredy, James
Clark, Stephen
Dillard, Les
Dobson, Garland
Earsom, Stephen
Ellis, James (Jim) F.
Ernst, Richard
Fox, Kevin
Guldager, Nikolina
Hink, Mike
Hinkes, Michael
Hurd, Shay
Koneff, Mark
Larned, William
Liddick, Terry
Lubinski, Brian
Mallek, Ed
Moore, Charles
Olson, Nathan
Powell, Doug
Rayfield, John
Rees, Kurt
Rhodes, Walt
Richardson, J. Ken
Rippetto, Dave
Roetker, Fred
Scotton, Brad
Sieh, Eric
Spangler, Robert
Spindler, Michael (Mike)
Stark, Rory
Sundown, Robert
Thorpe, Philip
VanHatten, G. Kevin
Wade, Mike
Ward, James
Wittkop, Jim
Wortham, James

NATIONAL PARK SERVICE



Alsworth, Leon
Brennan, Gary
Cebulski, Curtis
Ellis, Lynn
Evans, William
Fink, Leon F.
Gilliland, Allen
Herring, J. Nick
Howell, Galen
Kangus, W.B. "Tug"
Kimmel, John
Lenon, Bruce
Loach, James
Mazur, Stephen
Milone, Colin B
Richotte, Richard
Sample, Scott
Shults, Brad
Stevenson, Dan
Taylor, Scott
Traub, James

NPS U.S. PARK POLICE



Bohn, Keith
Burchell, Kenneth
Chittick, Kevin
Davis, Craig
Haapapuro, Eric
Hertel, Jeffery
Perkins, Christopher
Wright, Keaton

U.S. GEOLOGICAL SURVEY



Christiansen, William
Heywood, Charles
Wright, C. Wayne



Assurance Through Continual Improvement

PROGRAM EVALUATIONS

DOI's aviation program evaluation function serves as an integral element of the Department's aviation Safety Management System "Assurance" pillar and a critical piece of the DOI A-123 management controls assurance program. In collaboration with the bureaus, OAS led aviation program evaluations are held on-site at bureau aviation unit locations. The objectives of the program evaluations include:

- Assessment of unit compliance with DOI aviation policy and Federal regulation.
- Evaluation of OAS's effectiveness in communicating and implementing DOI aviation policies.
- Identification of areas of potential improvement, sharing best practices, and support needs for each unit.

FY12 Results & Performance

In FY12, OAS conducted 11 aviation program evaluations amongst 5 bureaus resulting in a total of 84 findings and **no material weaknesses**. Findings, corrective actions, and aviation program enhancements were collaborated with bureau aviation managers and tracked using OAS's ISO 9001-2008 certified program evaluation process (implemented in 2008). Since FY06, OAS has achieved a **71% reduction in completion time for aviation program evaluations**. **100%** of all Plan Of Action and Milestones (POAMs) have been fulfilled for the aviation program evaluations conducted to date in accordance with OAS's ISO 9001-2008 process requirements.

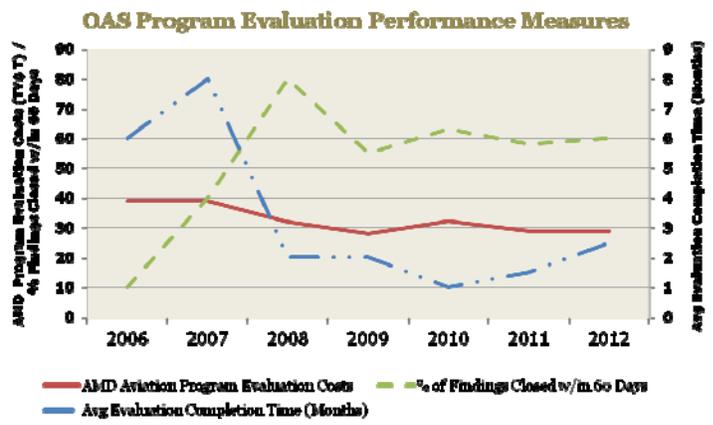
FY12 Analytics The aviation program evaluation system is a **proactive process** for gathering and analyzing data to assess the health of aviation programs within the Department. Regular monitoring of key "vital signs" provides a quality assurance system to assess the safety of aviation services provided, ensures efficiency in the management of complex resources, and provides a means of sharing best practices.

From April 2005 to July 2012, a comprehensive analysis of 397 historical aviation program evaluation findings was completed within 67 evaluations. An analysis of these findings determined four major areas for improvement encompassing aviation program aviation plans, MOUs/IAAs, training, and safety.

Location	Date	Result of Review
NPS – Intermountain Region	10/11	9 Findings
BIA – Western Region	01/12	8 Findings
FWS – Pacific Southwest Region	03/12	8 Findings
BIA – Supai	03/12	16 Findings
BLM – Colorado	04/12	8 Findings
BLM – National Office	05/12	4 Findings
BLM – California	05/12	8 Findings
NPS – Pacific West Region	05/12	10 Findings
BIA – Northwest Region	06/12	9 Findings
BOR – Denver Office	07/12	4 Findings
FWS – Midwest Region	08/12	TBD
<i>No Material Weaknesses Found</i>		<i>Total 84 Findings</i>

The Top 4 Findings, 2005-2012

1. Incomplete or out of date aviation plans.
⇒ [40 of 67 evaluations, or 59.7%](#)
2. MOUs/IAAs/SLAs are missing or out of date.
⇒ [33 of 67 evaluations, or 49.2%](#)
3. Required Line Manager (M2)/Supervisor (M3) training not conducted or current (per OPM-04)
⇒ [41 of 67 evaluations, or 61.2%](#)
4. Minimal or no SAFECOMs compared to total amount of bureau flight time.
⇒ [20 of 67 evaluations, or 29.9%](#)





THE ADDED BENEFIT OF PROGRAM EVALUATIONS

Departmental Aviation Program Evaluations are conducted via a systematic process for analyzing and reporting information with regard to aviation programs within the bureaus. These assessments are tailored to meet departmental and bureau needs. For example, bureaus that participate in wildland fire operations perform aviation evaluations internally through readiness reviews. However, non-wildland fire (i. e. wildlife, law enforcement, etc.) aviation missions are rarely incorporated into these reviews thus not assessed as frequently. Fortunately, in many cases the departmental aviation evaluations provide an opportunity for individuals performing aviation missions in wildlife, law enforcement, etc. to connect with their national, regional/state and local aviation managers.

Each bureau should, and many already have, develop roles and responsibilities within their organization to communicate and implement essential information, not only internally within their bureau but to share with other bureaus within the Department.

It is a challenge to provide information that is clear, accurate, concise and actionable. During 2012, an evaluation was conducted for the US Fish and Wildlife Service's Midwest Region. Their photo inventory program was identified as a best practice and model that should be shared throughout the department and with our interagency partners. Aviation users that utilized the photo inventory program provided evidence/testimony that showed aviation users significantly mitigated risks while maintaining a high biological/resource value. This took a total team effort from top to bottom including the Regional Director, Regional Aviation Manager, Project Leader/Refuge Manager, and FWS employees engaged in aviation operations. There was a clear

UPDATED DEPARTMENTAL MANUAL ON AVIATION POLICY

Departmental aviation policy is the foundation upon which all bureaus utilizing and operating aircraft within the Department base their operational standards and principles. Policy also establishes management responsibilities, expected level of performance, and the authority under which they are conducted. Many bureaus adopt specific policy and procedures that address their respective aviation operations. Findings have started to emerge where bureau aviation managers and individuals at the operational level are unaware of specific departmental aviation policy. The Departmental Manual (DM) and Operational Procedures Memoranda (OPMs) were updated and released recently and contain various policy changes that have not been effectively communicated down to the operational level. This issue has been identified through the Departmental Aviation Program Evaluations and most often occurred in the areas of Training, Safety and Security.

The DM, OPMs, and appropriate handbooks are applicable to all Interior employees, individuals, or groups providing volunteer services without compensation, or any other persons supervised by Departmental employees. Individual bureaus are responsible for reviewing departmental policy and then developing, implementing and updating bureau specific policy. Deviations in policy have been identified through the aviation program evaluation process and are recognized as being areas in need of improvement.

Such as, in the area of training there has been a low completion rate for the A-200 Mishap Review (requires initial completion and every 3 years thereafter) which is required for several positions but the two most common are Aircrew Member and Supervisor. Another is in the area of security, the new DM requires aviation risk assessments be completed every 2 years compared to only once in the previous version.

Developing roles and responsibilities for sharing policy changes and updates can be challenging. It requires stakeholders at all levels throughout an aviation program be provided specific guidance to ensure adequate safety and efficiency.

understanding in the Regional organization of the Operational Risk Management process and how it was implemented and who had responsibility. This process started early in the year with their Aviation Mission Approval Process which evaluated each flight request based on the biological value versus the assumed risk. This didn't happen overnight and the FWS Midwest Region has endured great financial expense and time spent by personnel to achieve success with their photo inventory program.

One of the five goals of the Departmental Aviation Program Evaluation is that best practices will be identified and shared with all aviation programs through the aviation/oversight process. Capturing these best practices is effectively done

through site visits (helibases, airports, retardant bases, and dispatch centers) while meeting with bureau line managers and their staff. As aviation program evaluations continue to be tailored to meet departmental and bureau needs it is especially important that all elements of aviation programs are assessed and best practices be communicated in a clear, accurate, concise and actionable manner. Communication of best practices is accomplished through a variety of methods including Aviation Safety Awards, Aviation Accident Prevention publications and improvements in Aviation Safety Training.

Program Evaluations identify many of the safe, efficient and economical aviation programs that can benefit us all when they are shared.



OAS TRAINS RECORD NUMBER OF USFWS PERSONNEL IN UNDERWATER AIRCRAFT EGRESS

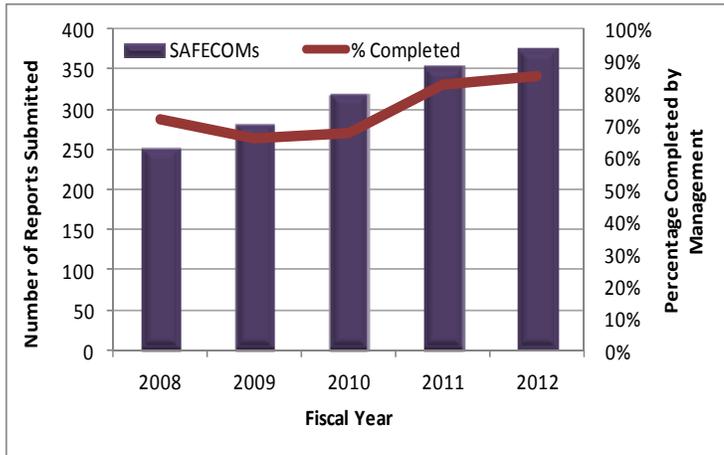
In FY12, OAS delivered the A-312 Water Ditching and Survival course to 335 U.S. Fish and Wildlife Service (USFWS) employees. This was a 58% increase over USFWS personnel trained in FY11.



The training was part of a collaborative OAS/USFWS effort to ensure USFWS employees participating in overwater flights know how to successfully egress from an aircraft in the event of a water ditching. The A-312 course includes both an academic component and hands-on in the water exercises. During the final exercise of the course, each student is submerged underwater in a “dunker” device that simulates an aircraft cabin. The student must successfully egress without assistance to pass the course.

Students completing each iteration of the course evaluated the instructors and the curriculum. The mean student rating for overall effectiveness of the course consistently exceeded 4.0 on a 5.0 scale.

SAFECOM REPORTING



- SAFECOM reporting has been steadily rising over the last five years indicating a growing awareness of safety issues and a dedication to accident prevention, as illustrated in the graph on the left.
- SAFECOM completion rates, a measure of management involvement in hazard mitigation, has also been on the rise but still remains below the achievable goal of 100%, as illustrated in the graph on the left.
- Averaged over the past 5 years, approximately 40% of all SAFECOM reports are maintenance related. Only about 4% can be described as mishap prevention. While 51% are reports on incidents and hazards that have already occurred. The remaining 5% are directed toward management.

FY12 AVIATION MISHAP REVIEW BOARDS

In FY12, two AMRBs were convened and recommendations aimed at accident prevention were issued to the bureaus and OAS. As of September 30, 2012, there remain 131 open recommendations from AMRBs dating back to FY08. The good news is that many of the recommendations are being implemented.

Congratulations to BSEE on closing out all outstanding recommendations!



WHAT IS YOUR ORGANIZATION'S CULTURE?



Almost everyone is familiar with the term “culture,” but when asked to define it, or asked to describe their own culture, they often struggle. They look at the walls for copies of the mission statement or babble something about having a “strong safety culture.” Like air, you know it exists, know it is important and understand your need for it, but can’t quite grasp it. A short definition of culture is simple; “the way things are done around here.” Those “things” include professional ethics, compliance, safety, risk-reward decisions, customer care and satisfaction, employee satisfaction and just about anything else of value you can think of. It’s all vital stuff.

Our Aviation Culture

We all know that aviation has a culture all its own. As aircrew, we value our unique experiences because we recognize what it took to earn them. We like to hear “there I was” stories that help us learn from others’ experiences, and there is a sense of loss each time one goes down. What went wrong? How would I have handled it differently? Many a young aircrew has gained valuable insights into the profession through “hangar flying”, sitting around as more experienced aircrew discuss causes and tools for avoiding a similar fate.

This aviation culture defines you to people inside aviation as well as outside aviation. And there are smaller sub-cultures as a part of this exclusive group. Each area of expertise has its own culture; wildland fire-fighting , other natural resources, and Alaska aviation; all come from very different cultures. Each is unique, and all are proud of the culture to which they belong and identify with.

The Safety Culture

A safety culture also exists inside every organization. The varying degrees in which safety is promoted determines the quality of the subculture of safety within the organization. The safety culture has to be promoted by a leader, supported by policy, training and motivation, and communicated through the organization by introducing it into the structure, processes and practices. Participation is encouraged, and as people begin to gain new impressions and experiences of the newly introduced safety procedures, they begin to gain a commitment, involvement and, finally, loyalty to the process launching the fledgling safety culture on its way to a healthy and growing subculture throughout the organization. Sound simple? It actually is.

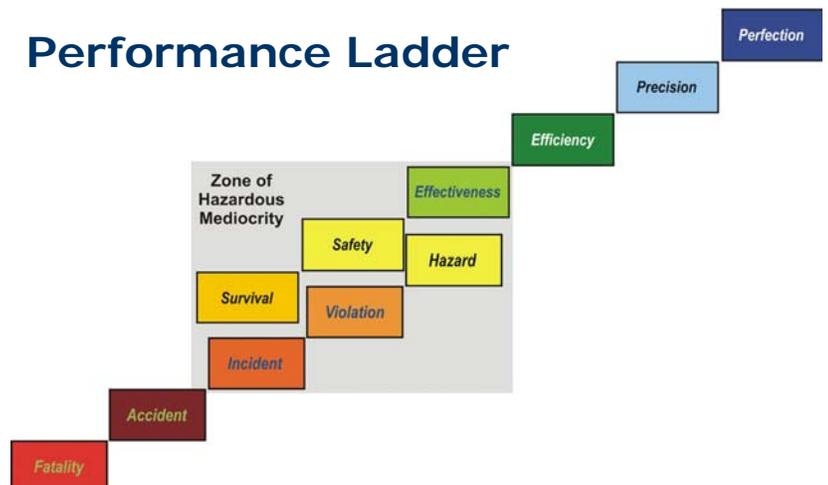
But how can you be sure that your organization has the means of ensuring that your safety culture continues to thrive? Could your safety culture be at risk of growing stagnant, getting pushed back due to budget constraints, mission creep, political pressures and a change of leadership who may not emphasize the safety program as vigorously?

If You are Aiming for Safety, You are Aiming Too Low

Like flying too low or too slow, some organizations operate without a significant margin for error—aiming too low. In fact, two of the most dangerous words you can ever hear is “safe enough.” An effective safety culture requires its members to aim higher and continually reach for a level of greater precision. Aiming higher requires an understanding of what to strive for and recognizing what characteristics and behaviors to avoid.

A safe culture must be actively maintained and managed. It is difficult reaching the level of precision on the performance ladder, but once there, maintaining the level is easier to manage. Caution against complacency and ensure new employees are brought into the system with as much dedication as the most loyal and committed professional in the organization. This will ensure continuity through the years and a willingness to not settle in because of comfort, but to improve the program as technology and the world dictate. ¹

Performance Ladder



¹ Reference for this publication: CRM and ORM For Aviation, Pat Daily, Convergent Publications, 2010



SAFECOM AND A “JUST CULTURE”

SAFECOM is a voluntary safety reporting mechanism that satisfies the Department’s requirement for aviation mishap reporting. A SAFECOM is used to report any condition, observation, act, maintenance problem, or circumstance with personnel or aircraft that has the potential to cause an aviation-related mishap. SAFECOMS may also be used to identify good acts, events, and circumstances as well as unsafe situations.

Something we hear often is how some would prefer that the SAFECOM program provide similar non-punitive elements as within the Aviation Safety Reporting System (ASRS). ASRS is sponsored by the FAA and operated by NASA through a third party via Memorandum Of Understanding (MOU) that dates back as early as 1975. The immunity policy under the ASRS has undergone several changes in those years ranging from complete immunity to current policy which includes a prohibition on enforcement actions except for criminal offenses or accidents. The FAA enforcement restrictions involving ASRS reporting includes:

1. The violation was inadvertent and not deliberate;
2. The violation did not involve a criminal offense, accident, or action under 49 U.S.C. § 44709, which discloses a lack of qualification or competency, which is wholly excluded from this policy;
3. The person has not been found in any prior FAA enforcement action to have committed a violation of 49 U.S.C. subtitle VII, or any regulation promulgated there for a period of 5 years prior to the date of occurrence; and
4. The person proves that, within 10 days after the violation, or date when the person became aware or should have been aware of the violation, he or she completed and delivered or mailed a written report of the incident or occurrence to NASA.

The Department’s policy on SAFECOM reporting is contained within 352 DM 3.10B which states:

A SAFECOM’s sole purpose is for mishap prevention. Use of a SAFECOM for any other purpose is prohibited. A SAFECOM is not intended to fix blame and should not be utilized in disciplinary action against any employee.

352 DM 3.10E Provides guidance on how the information within a SAFECOM can be used during the investigative process:

While the SAFECOM itself shall not be used for any purpose other than mishap prevention, any information discovered or further developed during the investigation of a safety

concern, even if initially described in a SAFECOM, may be used for any lawful purpose including, but not limited to, placement of information obtained from a SAFECOM in the aircraft mishap file and as evidence in the revocation process, in accordance with 351 DM 3.6G(2).

So there are some similarities and one could argue that the SAFECOM affords greater protection of the individual than ASRS. The biggest challenge to managing an effective SAFECOM program involves driving towards a “just culture” which fairly balances accountability with safety. If violations are identified in a SAFECOM, management should first validate the information that was provided in the report and then determine if the condition of reporting the act is indicative of a constructive attitude towards reducing future mishaps. Key elements to establishing a just culture within both programs lie within terms such as “deliberate” and “knowingly.” An example would include an individual who **knows** that an SOP for flight following includes calling dispatch prior to takeoff and **deliberately** fails to do so, then files a SAFECOM in an effort to mitigate the impact of their action (or inaction in this case). One could fairly argue that this individual should be held accountable for their actions and more importantly, that all of us would want or expect that individual be held accountable as well. Any information within the SAFECOM cannot and should not be used for disciplinary action although there is nothing to prevent management from conducting a separate investigation in an attempt to acquire the facts and take an appropriate course of action.

The stakes are simply too high in aviation for any of us to tolerate individuals who attempt to use the SAFECOM system inappropriately. As managers, it’s up to all of us that we use this incredibly valuable voluntary information in a fair and yet effective manner. As employees, we should expect ourselves and others to be held accountable when conditions warrant such treatment. All of us should ensure the lessons that lie within all of it are known and that the corrective actions are implemented.

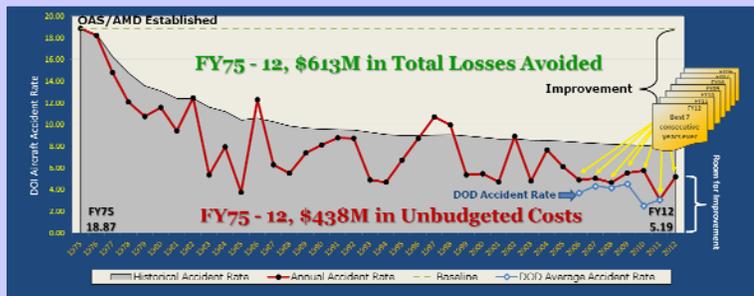
No single manager or employee will be able to establish a just culture on their own as it will require a collective and continual effort from all of us. SAFECOM is arguably the single most effective method of placing critical safety related information in the hands of those who possess the ability to take corrective action and proactively prevent future mishaps.



EXECUTIVE SUMMARY

(Take Away Sheet)

DOI Aircraft Rate



DOI aviation accident rate = 5.19 per 100K flight hours
FY06-12 = Best 7 Consecutive Years Ever

3 Accidents/2 Fatalities
2 accidents/2 fatalities - during fire suppression activities
1 accident/0 fatalities - during a water landing

FY12 Annual accident rate = $\frac{3 \text{ reportable accidents}}{57,830.3 \text{ reportable DOI flight hours}}$

* 100,000 = **5.19** accidents / 100,000 hours

Historical accident rate = $\frac{258 \text{ reportable accidents}}{3,257,303.4 \text{ reportable DOI flight hours}}$
(38 fiscal years)

* 100,000 = **7.92** accidents / 100,000 hours

POLICY: Aviation Management Services (AMD) has been realigned under the Deputy Assistant Secretary for Public Safety, Resource Protection, and Emergency Services (DAS-PRE). AMD has changed its name to the Office of Aviation Services (OAS) and is now more mission focused, supporting Bureau requirements and Department goals.

POLICY: In anticipation of the realignment, DAS-PRE Kim Thorsen held an aviation summit that included Deputy Directors from each of the bureaus, allowing them to meet with the OAS senior leadership and have an executive-level strategic discussion about DOI's aviation programs and the roadmap for the future.

POLICY: Improvements to automated flight following and emergency location transmitters were implemented this year to decrease search and rescue times in the event of a mishap. Also, a new requirement for wire cutters on helicopters was created after their value was identified in an FY11 helicopter wire strike mishap.

POLICY: A project to develop more rigorous standards for the qualification of aircraft and pilot inspectors was initiated in FY12.

RISK MANAGEMENT: In the last five years, mishaps occurring during off-airport landings have increased from 14% to 38%.

PROMOTION: The Secretary's Award for Outstanding Contribution to Aviation Safety was awarded to Stephen V. Rauch, AMD. Group awards for Significant Contribution to Aviation Safety were given to NOROCK and FORT with USGS, and Brian Stemper of USFWS was given the individual award. Several Airwards for BLM and BSEE were also given.

PROMOTION: Bureaus maintaining excellence in aviation safety through their continuous accident-free years record include: BSEE-38 years; OSM-26 years; BOR-15 years; USGS-6 years; BIA-5 years; and NPS-1 year.

ASSURANCE: 84 Aviation Program Evaluation findings and no material weaknesses were found in FY12.

ASSURANCE: USFWS-Midwest Region's photo inventory system was identified as a best practice on a FY12 Aviation Program Evaluation.

ASSURANCE: Aviation Program Evaluations conducted in FY12 have noted that changes in policy due to new Departmental Manuals for DOI's aviation program, signed in July 2011, are not reaching the unit level.

ASSURANCE: USFWS has increased the number of pilots and aircrew taking the OAS A-312 Water Ditching and Survival course by 58% from the previous year.

ASSURANCE: SAFECOM reporting and completion rates have been steadily rising over the last 5 years demonstrating an increased commitment to safety awareness, although ample room for improvement remains.

