

# **Aerial Survey Working Group Report**

## **January 21-22, 2009**                      **Baltimore, Maryland**

The annual Aerial Survey Working Group (ASWG) meeting was hosted by Rod Whiteman in Baltimore Maryland on the above dates. The group thanks Rod for his work to provide an excellent facility for the meeting. This report is the responsibility of Jeff Mai, Forest Health Protection (FHP) National Aviation Safety Manager.

In attendance were:

1. Kevin Carlin                      Pennsylvania Department of Conservation and Natural Resources
2. Jim Compton                      FHP, Southern Region
3. Bill Frament                      FHP, Northeastern Area
4. Zachary Heath                      FHP, Pacific Southwest Region
5. Brian Howell                      FHP, Rocky Mountain Region
6. Dean Lee                      Fire & Aviation Management, Eastern Region
7. Jeff Mai                      FHP, FHTET, WO
8. Kathleen Matthews                      FHP, Northern and Intermountain Region
9. J.D. Mullen                      FHP, FHTET, WO
10. Rusty Rhea                      FHP, Southern Region
11. Marc Roberts                      FHP, Southern Region
12. Daniel Ryerson                      FHP, Southwestern Region
13. George Saufley                      FHP, Northeastern Area
14. Carolyn Scott                      FHP, Southern Region
15. Keith Sprengel                      FHP, Pacific Northwest Region
16. Biff Thompson                      Maryland Department of Agriculture
17. Crystal Tischler                      FHP, Southwestern Region
18. Rod Whiteman                      FHP, Northeastern Area
19. Larry Yarger                      FHP, WO

Note: FHP Alaska Region was unable to attend but communicated relevant information prior to ASWG 2009. The ASWG would like to thank Dean Lee – Acting Regional Aviation Safety Manager Northeastern Area during 2008, for providing National Aviation Accident Review.

### **The ASWG Four Key Issues for 2009**

#### **1. Implementing Safety Management Systems (SMS)**

The FS has become the leading federal agency working with FAA on implementing SMS. FHP and the ASWG are actively engaged in the process on several fronts including each of the four primary components of SMS: Safety Policy, Safety Risk Management, Safety Assurance, and Safety Promotion. Key Issues and Additional Information within this report touch on each component. Over the coming months, all aviation users including leadership will grow in understanding and effectiveness as we incorporate SMS into our aviation program.

SMS represents an evolution in the familiar System Safety concept that includes Risk Management. For more than a year, USFS aviation has been moving in the direction of SMS to provide a more structured management system to control risk in operations. During 2008 the FS experienced a below average mishap rate, however, one of those accidents included the greatest number of fatalities experienced in any single FS accident. More than ever, agency safety managers are committed to promoting a cultural shift in thinking and action necessary to prevent accidents.

FHP did not experience any aviation accidents during any of our 2008 agency and cooperator operations. FHP's accident trend continues to decline compared to the agency overall, which has been increasing slightly over the last 10 years. However, FHP's average accident rate remains higher than the agency's 10-year average. For more information on rates and trends, see FHP Production & Safety Statistics and the USFS FY 2008 Safety Summary available on line [www.fs.fed.us/foresthealth/aviation/safety/](http://www.fs.fed.us/foresthealth/aviation/safety/). FHP has made steady progress to control risk in operations during recent years. However, as indicated by accident statistics and the System Safety process (including FHP Program Risk Assessments), continued diligence is necessary in order to realize the full benefit of a system-wide approach to managing risk.

## **2. Program Risk Assessments (RA)**

Status: Strategic RAs were completed and provided to the field prior to the 2008 flight for each program area within FHP including aerial application, survey and photography with intent to:

- Guide FHP, cooperators and support staff during planning and implementation
- Provide key hazards and mitigations to emphasize during deliberate risk management
- Raise awareness to reduce the likelihood of an emergency requiring time critical action during flight operations

Feedback from FHP Unit Aviation Officers was incorporated prior to the 2008 flight season with further review and updates completed during the 2009 ASWG meeting. It is the goal of the ASWG to assure mitigation processes identified within the RAs continue to be implemented as outlined above and carefully considered at the appropriate level where applicable. Additionally, the ASWG recommends:

- Referencing RA within Regional FHP Aviation Safety Plans (project-level plans may still require independent RAs)
- Adding review of the RA to Job Hazard Analyses

Concerns were expressed regarding potential issues of responsibility and liability as related to cooperator systems analyzed in RA. The FHP Aviation Safety Manager's position is that RA is cooperative in nature (as is our mission) and intended to evaluate as many significant risks as possible, directly or indirectly related to FHP aviation, in the context of a comprehensive System Safety approach to risk management. FHP RAs are currently available on-line through the FHP web site and through F&AM's Aviation Safety Center. Our updated RAs will be incorporated into the new 2009 System Safety Aviation Guide, available in hardcopy and on line soon. In accordance with SMS, our assurance program will be further developed this year.

### **3. Aviation Safety Training**

Training remains a Key Issue this year; see last year's report for safety policy references within the FSM 5700 and FSH 5709.16. Consistent with the safety promotion component of SMS, FHP has made progress in the areas of developing Interagency Aviation Training (IAT) instructors, participating in and contributing to IAT training events, providing training to FHP and cooperative aviation users and supervisors. Continued support from leadership to accomplish and maintain our training goal is necessary. Accomplishments in 2008 and goals for 2009:

- FHP Supervisors informed of requirements for first and second-level positions and training opportunities such as the Fall 2008 and Spring 2009 ACE or, possibly, in conjunction with the Fall 2009 Director's Meeting. By June of 2009, we should know if there will be a Fall 2009 ACE in Boise, ID. Some have been working to complete the on-line training and have attended formal classroom training this year. Supervisors needing to complete classroom training by the January 31, 2010 deadline should contact Jeff Mai for assistance in determining the best way to accomplish individual requirements.
- Aerial Survey Aviation Safety and Management (AS2M) training was provided to 71 aviation users last year. There is a continuing need to provide this training annually. We are back on track with the next session scheduled in Portland, Oregon during the week of April 20, 2009. Approximately 1/3 of those attending are state employees from OR, WA, AR, and MS.
- FHP employees have been encouraged to gain qualification and advanced skills as IAT Instructors in order to better accommodate all of our training needs. Region 6 and Region 8 are to be commended for their participation in this effort. Additionally, FHP instructors continue to become more involved with providing aviation safety training to a variety of interagency personnel where possible (such as ACE and geographic area training events in NM, UT, and ID).

### **4. Survey Hours, Automated Flight Following (AFF) and Digital Mapping**

Approximately 3,950 hours were flown by FHP and state cooperators conducting aerial survey in 2008. AFF was utilized 81% of the total survey flight time, an increase from last year's estimate. Use would be closer to 100% except that state cooperators are not realizing the full benefit of this added safety measure. Since the movement to use AFF began in 2004, aircraft service providers and regions have increasingly procured systems and paid for individual subscriptions. To ease the transition, FHP provided national funding and continued subscription service for seven government-owned portable systems during 2008. Beginning this year, all units are responsible for paying subscriptions locally. A recommendation has been made to FHP that any surplus AFF units be transferred to F&AM for use in FS airtankers. Every year more digital aerial sketchmapping (DASM) systems are being used by FHP and cooperators. Currently, DASM use is 77% of the total survey flight time.

### **Additional Information**

A. All four Key Issues identified from 2007 and included in the 2008 Report were addressed during 2008. Those partially addressed and needing further attention are again included for 2009.

**B.** The 2010 ASWG meeting will be January 20-21, 2009 in Ogden, UT and hosted by Northern and Intermountain Region Aerial Survey Coordinator, Kathleen Matthews.

**C.** Several FHP positions have been filled, or are in the process of being filled, which are to key to safety and efficiency including Program Manager, Unit Aviation Officer, Observer, and Pilot. Support from leadership to fill these positions has been good. Of parallel importance are aviation support positions such as contracting, aircraft maintenance and, particularly, Regional Aviation Safety Managers. Acknowledging these gaps and our continued advocacy to fill positions as appropriate is prudent where related to our ability to improve efficiency and control risk.

**D.** Doctrine is changing FS Aviation Safety Policy and the FSM 5700 rewrite is nearly complete. The draft version is a concise, scaled-down, more user-friendly document. Similarly, the FSH 5609.16 is being overhauled. Policy and guidance edited out of the FSM & FSH, if retained, is moved to more easily maintained and usable guides (such as the new SMS Guide). Draft versions of these will soon be available for review prior to processing through the directives process.

**E.** ASWG continues to coordinate with FHM through this meeting, participation at annual FHM meetings, and tasks or special projects as developed. An update was provided to the ASWG as to the status of 2008 FHM resolutions, current issues, and possible resolutions for FHM 2009. The damage agent list (formerly PTIPS) is complete. Several national issues relating to improving analysis of our national ADS data were presented, discussions are included in the meeting notes.

**F.** FHP Aviation web [www.fs.fed.us/foresthealth/aviation/](http://www.fs.fed.us/foresthealth/aviation/) has been overhauled, is consistent with the national template, and much improved with the expansion of important subject areas and topics related to forest health and aviation safety.

**G.** Pre-Season Survey Workshops – week of May 18<sup>th</sup> in Region 2 and week of June 22<sup>nd</sup> in Region 5; no dates yet for an informal digital mapping review in the Northeastern Area and either pinch hitter or field survival in Region 6; Webex training for the new version of GeoLink is on hold. No other pre-season activities or workshops are planned at this time. Contact Jeff Mai if planning any aviation training within your area.

**H.** Annually at the ASWG meeting there is an agenda item for those who are looking for help flying aerial survey during the current survey season. Nationally there continues to be a shortage of qualified sketchmappers due to inadequate staffing and turn over. Assisting other aerial survey programs helps sketchmappers develop their skills in new areas, while helping out other FHP programs. The ASWG supports this opportunity for additional training and experience. There were no specific requests for survey assistance; however, status reports indicate a variety of opportunities may exist due to observer vacancies in Regions 1, 2, 3, 4, 5 and 10.

**I.** A number of other important topics were covered in depth relating to: special surveys (need to maintain capability), avionics, travel caps, ground checks, uses of data and data disclaimer, reporting consistency (for both damage & flown/not flown data), metadata utility in GeoLink, imagery and background maps. Information sharing and progress continues in all these areas.

Meeting notes are available and questions will be answered upon request - End of Report.