



## **HELICOPTER SAFETY ADVISORY CONFERENCE**

**January 12, 2012**

**The Inn on Bourbon**

**New Orleans, LA**

## **MINUTES**

### **INTRODUCTION**

- Chairman Mark Fontenot called the meeting to order at 08:30 and welcomed members and guests.
- Introduction by Attendees
- Read Antitrust Statement and presented safety information for emergency evacuation

## **HSAC WORK GROUP COMMITTEE REPORTS**

### **Recommended Practices (RP) / Safety Committee – Mark Adolph**

- RP / Safety Committee Notes (*attachment #1*)
  - Proposal for new RP Methodology
  - HSAC Website Review
  - RP Projects – Update

### **Flight Following / ADSB – Terry Kaufman**

- Flight Following / ADSB Committee Notes (*attachment #2*)
  - FAA Houston Center Items
  - Aeronautical Frequency Committee Items
  - HSAC Frequency Cards
  -

### **Technical Committee – Pat Roberts**

- Draft RP, “Working at Heights”
- Draft RP, “Fatigue Management”
- Cowling Safety: Aerospace Design Co., UK (*attachment #3*)



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### **Aerial Observation Committee (AOC) – Cort Andrews**

- Accident Statistics – presented by Tom Buchner (*attachment #4*)

### **HSAC COMMITTEE REPORTS**

Treasurer's Report – Joe Gross (*attachment #5*)

Secretary's Report – Ron Domingue

- Elections for Chairman and Treasurer at October Meeting

Vice Chairman's Report – No report

### **Safety – Terry Kaufman**

- Gulf of Mexico Safety Statistics
  - S92: Tail rotor problem
  - BH230: Tail rotor struck safety fence
  - BH206L3: Compressor stall / natural gas plume
  - BH206BIII: Dynamic rollover
  - BH206L4: Loss of tail rotor effectiveness (LTE)
  - AS350B: Main rotor blade flexed and hit tail rotor drive shaft
- FlightSafety International (FSI) – Terry Palmer
  - IHST: Dave Hunsinger, SMS Team Lead; Jarred Simon, FDM Team Lead
  - IHST: Terry Palmer, Training Group – Over 500 flight schools in U.S. and only 30 schools are registered with the FAA
  - FSI
    - Improve training for CFI renewals
    - EC135 simulator and P&W maintenance training in Dallas, TX
    - AW139 simulator scheduled for service in Lafayette, LA 1<sup>st</sup> quarter 2013
    - Heli-Expo 2012: IHST excellent training
- Suggestions to Safety Committee
  - Define “Green Deck”
  - Define HLO training standard



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### **Government Liaison – Dana Raaz**

- Congratulations to Dana on his retirement
- Introduced new Government Liaison from ERA, **Steve Smeltzer**

**Chairman, Mark Fontenot, presents Dana Raaz  
“Excellence Award” for his years of service to HSAC.**



### **Heliport and Airways – Ken Kersker**

- Update on RP2L

### **Industry Liaison – Larry Lippert**

- **Mobilarm**
  - [www.mobilarm.com](http://www.mobilarm.com)
  - Mobilcom Crewsafe V100 VHF DSC Locator Beacon:  
[www.youtube.com/watch?v=rOGidJJm7T0](http://www.youtube.com/watch?v=rOGidJJm7T0)
  - **Automatic Identification System (AIS)** is an automatic tracking system used on ships. [www.marinetraffic.com/ais/](http://www.marinetraffic.com/ais/)



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- ADS-B Update (*attachment #6*)

**Next HSAC Meeting will be May 23rd and May 24th at Hilton – Lafayette; 1521 West Pinhook Road; Lafayette, LA 70503. (337) 235-6111.**

# HSAC Safety & RP Meeting Notes

## Attachment #1

# Proposal for New RP Methodology

- A previous suggestion has re-surfaced regarding how RP's are recorded and managed.
- Can we adopt the majority of OGP AMG?
- Could/should we write a HSAC Operational Management Guide with current RP's within?

# Website review

Remove RP's

92.5 Closed Helidecks & 92.1 Helideck Operational Hazards

Update required

High Density Traffic Area Procedures

Outbound Traffic Will

1. When departing a heliport within the traffic advisory area, will call prior to taking off, and wait a few seconds for the traffic advisory for another aircraft to report with any conflicting traffic, before beginning a take-off.
2. Execute an expeditious climb above 700-feet to desired cruising altitude.
3. Call *“Clear of the area” 10-nautical miles from the departure point, including altitude and direction except when operating from a Tower controlled airport.*

# Website Review

- Remove area agreement maps from site.
- Update Nav Charts to include; Galliano and remove tower controlled airports, such as GLS and Houma. Terry Gambell?

# RP Update Projects

- Bristow has made significant suggested changes to HSAC RP 2004-2 and these will be passed on soon for update on the website
- An EOC RP is required and will be developed for editing before the next meeting.  
Participants include; Mark Adolph, Terry Kaufman & Jason Glynn

**FLIGHT FOLLOWING /ADSB COMMITTEE**

January 12, 2012

**FAA HOUSTON CENTER ITEMS**

Houston Center is working with Navy Pensacola to obtain better access into Warning Area 155 for our helicopters. They have had quite a bit of success, and should be able to accommodate us much more easily in the future.

We discussed areas with poor communication in the Gulf. The middle portion of the Mississippi Canyon Area is one location that it is very difficult to reach Houston Center. They will try to determine what can be done to alleviate the problem.

Flight 2012 goes into effect on November 15, 2012. All flight plans will have to be in the ICAO format at that time.

**AERONAUTICAL FREQUENCY COMMITTEE ITEMS**

The FAA is beginning work on a Data Communication Program that would allow direct data link between Air Traffic Controllers and pilots in the aircraft. This would enable clearances to be sent directly to the aircraft. They are shooting for a 2015 to 2018 timeframe.

The FAA is seeking bidders to create a space-based ADS-B system. This would provide services in remote locations, and serve as a backup to land-based systems.

The 2012 National Defense Authorization Act seeks test sites for Unmanned Aerial Vehicles. Law Enforcement, Agriculture, and Pipeline/Power line patrol, are looking to use UAV in the future.

The Administration's Jobs Bill does not consider ATC frequencies as safety related like they do police, fire, and EMS.

Radio Station inspections reveal problems, such as, operating on wrong frequency, operating on unauthorized frequency, radios not labeled with authorized frequency, radio equipment not FCC approved, ASRI stickers not placed at sites.

**HSAC FREQUENCY CARDS**

A good amount of time was spent discussing the HSAC Frequency Cards. We are looking to automate the cards. Plans are to create the cards in Excel or similar program and put it on the HSAC website. Each operator would have an individual with password protected access to the information. These people could make changes as they occur, and send an email out to let everyone know the card has been updated.

## **FLIGHT FOLLOWING /ADSB COMMITTEE**

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The ADS-B AWOS would have only the location and frequency on the card, since phone numbers change each time a platform changes hands. The coordinates are not needed on the card since the Block # is on there.

We will look at the need for the hospital information on the cards, since Comm. Centers have the information and can pass it to the pilots.

We decided to issue the card just like in the past for this year, and spend the next year creating the revised card for digital distribution.

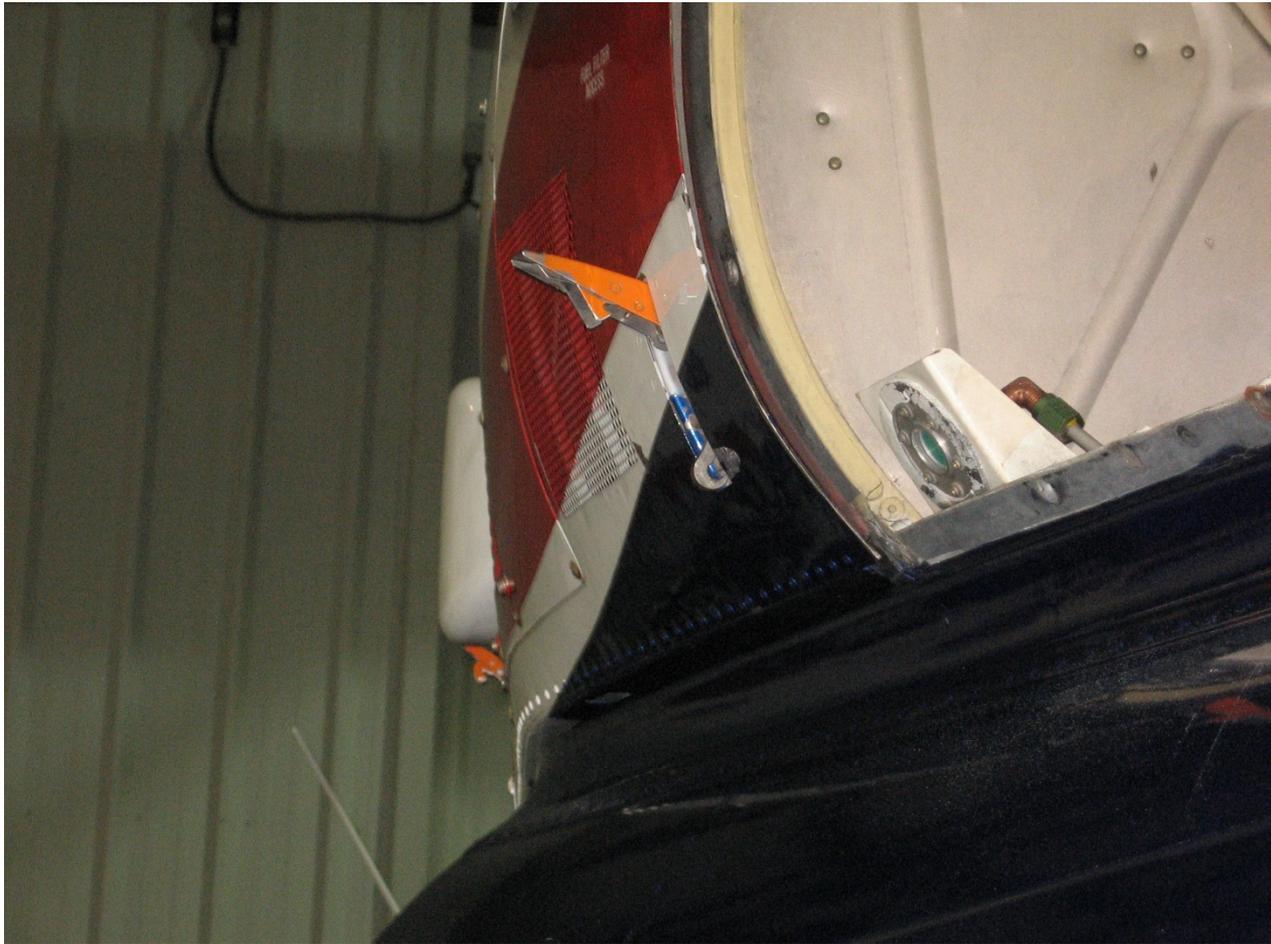
# Aircraft Cowling Safety

- There have been many incidences of cowling, access panels and fairings opening in flight.
- Sometimes the damage resulting from these incidences can be minor or can cause significant damage or loss of life.
- Some of these incidences can be attributed to human factors issues such as complacency and distraction.

Engine Cowl Latch in normal open position, spring loaded outward.



High visibility orange paint alerts the flight crew and maintenance technicians to an un-latched condition with latch spring loaded outward.



Latch in locked position but not fastened to the airframe. This is sometimes called “marrying the latch”.



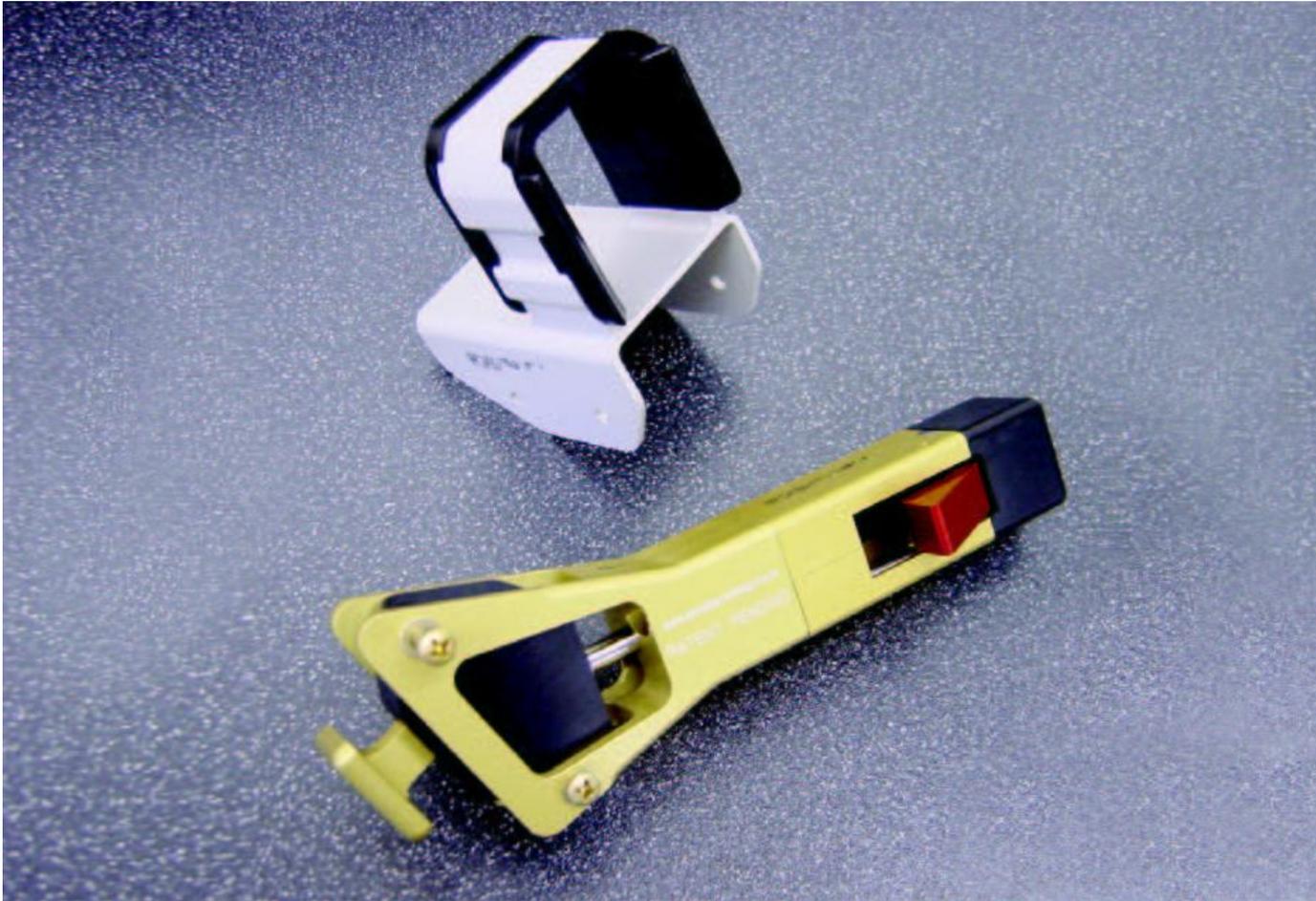
Latch locked but not fastened to airframe. Even with the high visibility orange paint it can appear to be latched depending on the curvature of the cowling.



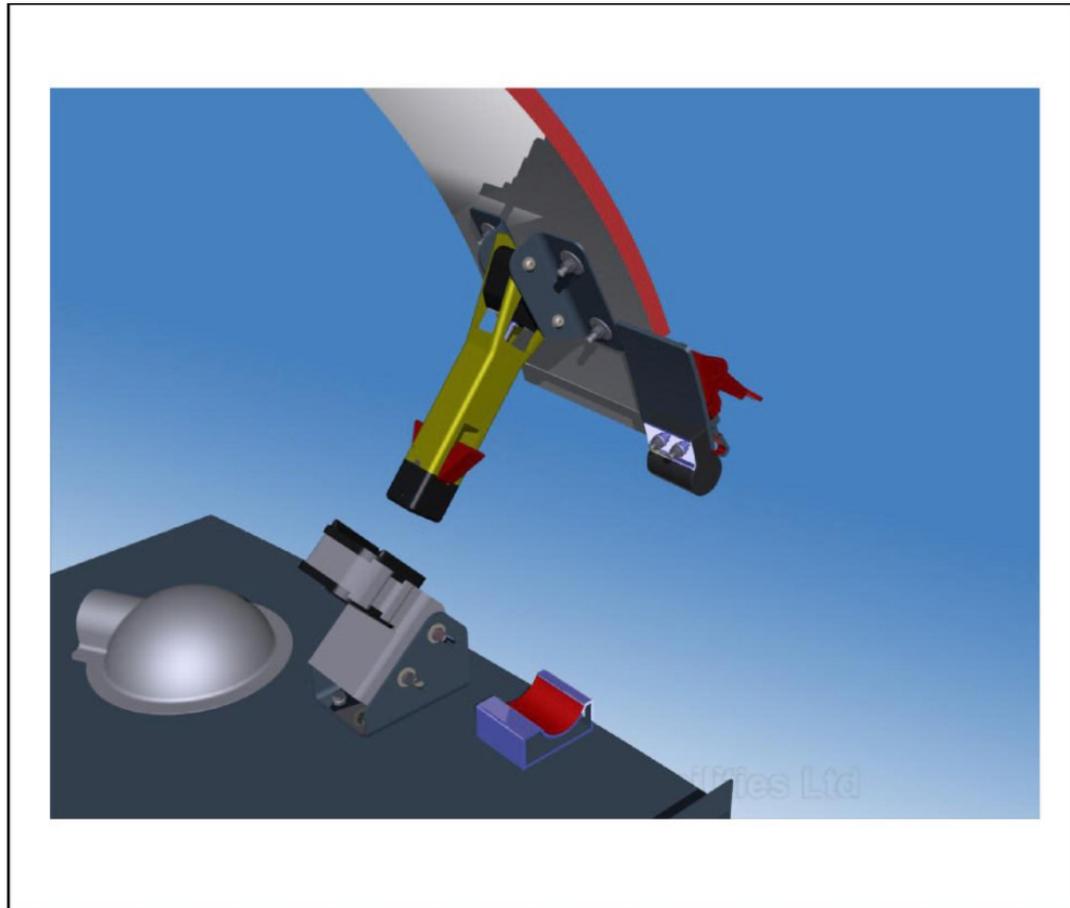
## The Aviation Industry has developed Secondary Latch Installations for aircraft.

- The secondary latches has been designed to stop cowlings from opening during flight, when the primary latches are incorrectly fastened, not fastened or are worn and have failed.
- The secondary latches automatically secure as soon as the cowling touches the airframe without any further action from the pilot or maintenance technicians.
- Primary features:
  - One secondary latch per cowling
  - Single push button release
  - No warning light in the cockpit is needed

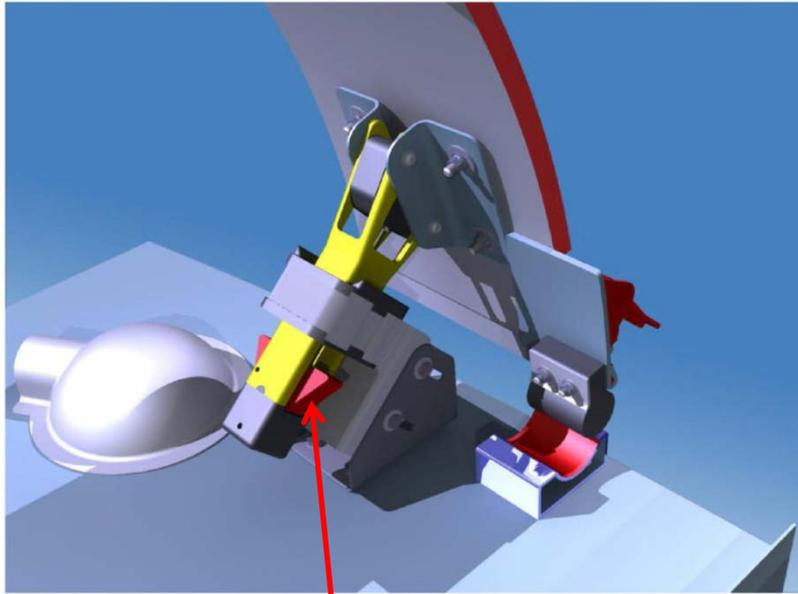
# Secondary latch and receptacle



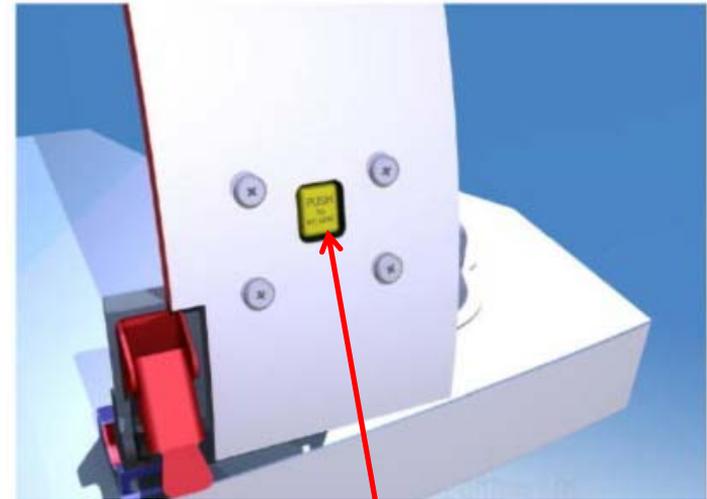
Secondary Latch System, the purpose is to provide an extra measure of safety in the event there is a problem with the primary cowling latches.



When the cowling is fully lowered the latch is guided through the receptacle. The latch fingers are spring loaded to the outward position. The cowling can only open as far as the lock fingers allow before it contacts the receptacle. To open the cowling the release button must be depressed.

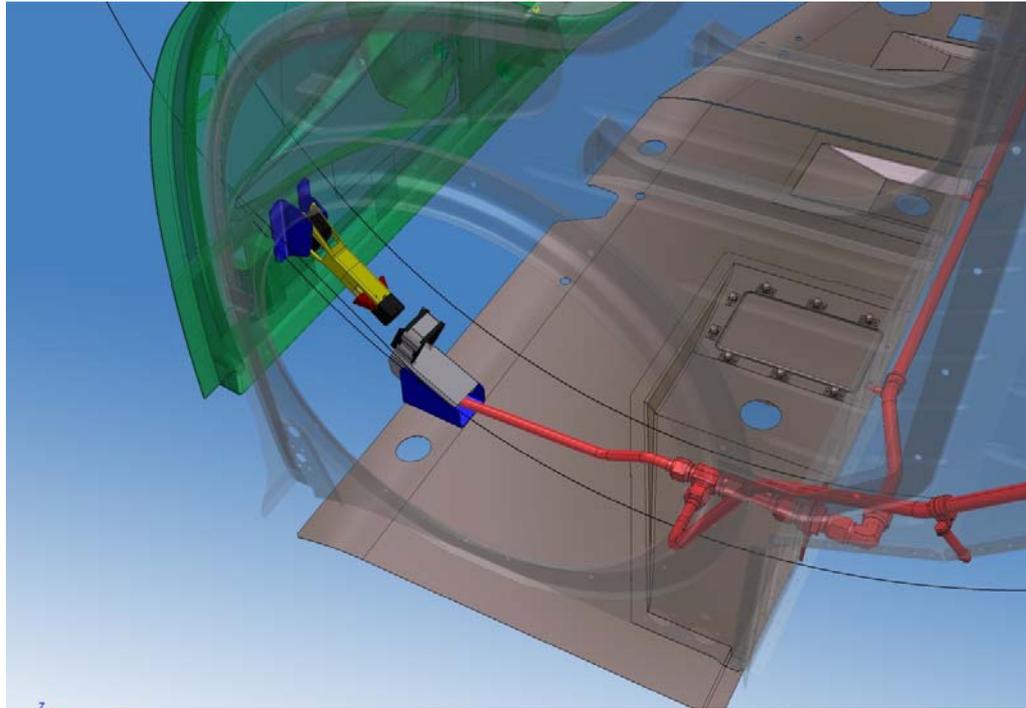


Lock fingers spring loaded outward



Release button

This would be a typical installation on an engine cowling.  
The additional cowling latch would be located in the forward part of engine cowling, just aft of the forward primary latch.



# Aircraft Cowling Safety

- Prior to flight:
- Be aware of human factor issues.
- Have a good pre flight and final walk around inspection.
- Always double check any cowling or access door when in doubt.
- Installation of Secondary Latch Systems can add an extra measure of safety.

*End of Presentation*

## 2010 Notes

On 4/20/11 the NTSB “released its preliminary **annual aviation statistics for 2010**, and while U.S. scheduled Part 121 airlines and Part 135 commuters suffered zero recorded fatalities, GA's numbers, though improved, were less fortunate. Year over year, general aviation accidents declined. **Out of 1435 GA accidents in 2010, 267 were fatal, resulting in 450 deaths, including three on the ground.** On-demand operators, a category that includes medical, charter, air taxi, and air tour flights, saw an overall decrease in accidents from 47 in 2009 to 31 in 2010, but that trend went against the segment's fatality statistics. On-demand operators suffered an increase from two fatal accidents in 2009 to six in 2010.

**U.S. general aviation logged 20.9 million flight hours in 2010, according to the NTSB, and recorded 6.86 accidents per 100,000 hours.** Fatalities for the segment were recorded as 1.27 per 100,000 flight hours. That tops the charts. On-demand operations recorded 1.05 accidents per 100,000 flight hours with a corresponding fatality rate of 0.2. That accident rate bests that of commuter operations, which recorded 1.899 accidents per 100,000 hours but left no fatalities.” (Avweb)

## 2010 U.S. and Canada Patrol Accidents

(Included in the industry-wide accident rate)

- 11/3/10 Meeker, CO Bell 206B

Struck electrical lines during gas leak detection flight

1 fatality, 1 serious injury

- 11/24/10 Velma, OK Cessna 172

Appears to have stalled when circling low level – 1 fatality

- 12/10/10 Isom, KY Bell 206B

Wire strike while on aerial power line observation flight but landed safely

1 minor injury, 2 uninjured

## 2010 Patrol/Surveillance - Accidents/Incidents for Discussion

(Not included in the industry-wide accident rate)

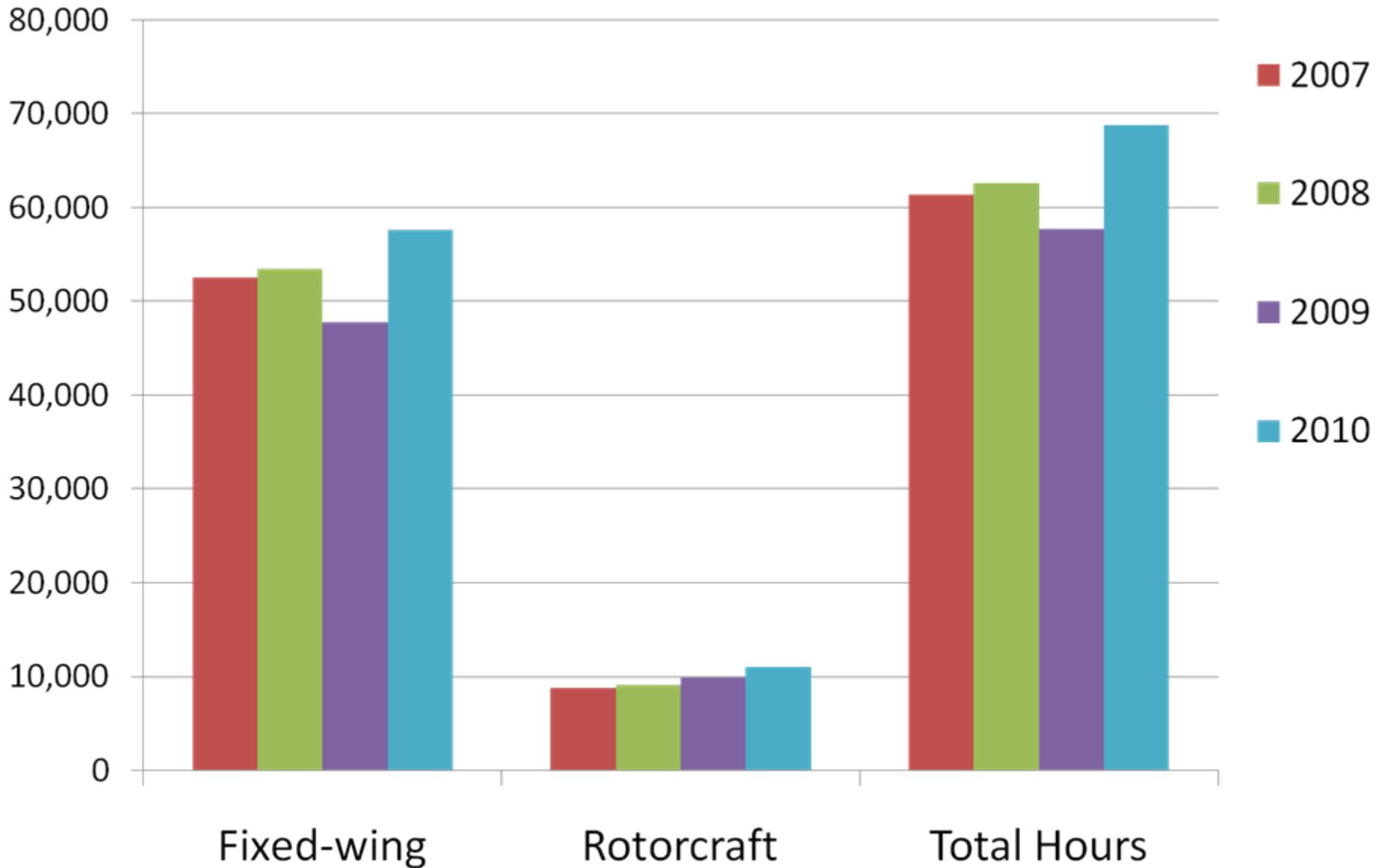
- 2/11 – Federal public use flight - King Cove, AK Piper PA-18-150  
Engine power failure due to probable carburetor ice buildup  
substantial damage to both wings – 2 uninjured
- 4/2 – Wildlife patrol - Stony River, AK Piper PA-18-150 (ski equipped)  
Pilot landed downwind on a frozen lake and lost control trying to turn around  
substantial damage to both wings – 1 uninjured
- 4/7 – Police surveillance flight – Ponce, Puerto Rico Cessna 404  
Right engine surged on takeoff, feathered prop, still descending made forced landing  
3 uninjured
- 5/7 - Police surveillance – Borrego Springs, CA Cessna T206H  
Collided with mountainous terrain – closest weather reported 10 miles, clear, 5k wind  
1 fatality
- 7/18 – Pipeline patrol – Houston, TX Cessna 172  
Field landing after engine failure. No reported aircraft damage & no injuries  
(This is not included in the Patrol accident rate.)

## 2010 Patrol/Surveillance - Accidents/Incidents for Discussion

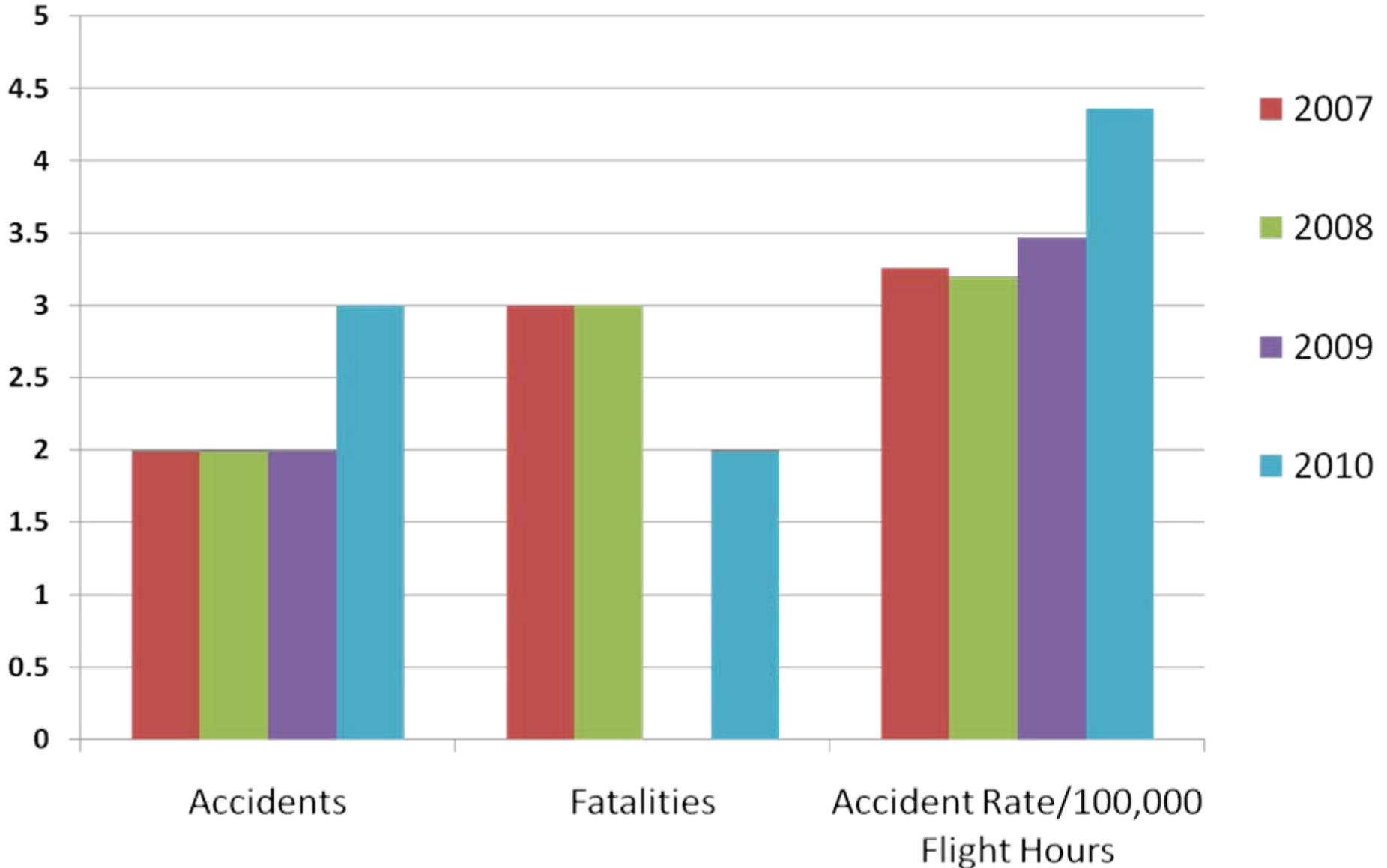
(Not included in the industry-wide accident rate)

- 8/19 – Japanese Coastguard – Japan Bell 421EP  
Struck offshore power lines 4 fatalities/1 missing
- 8/30 – U.S. National Wildlife Service law enforcement flight in AK Aviat A-1B  
Precautionary landing on sandbar due to oil temp increasing and pressure decreasing – left wing hit brush causing right wing and prop to strike the ground  
1 uninjured
- 10/15 – Missouri State Hwy Patrol Bell 206B  
Impacted terrain during VMC – Private Pilot - 1 fatality
- 11/10 – Texas Parks & Wildlife - Anthony, NM Partenavia P.68  
Encountered a downdraft flying low & slow in mountainous area - impacted terrain  
3 minor injuries – aircraft destroyed
- 12/31 – U.S. Dept. of Interior – Reedsport, OR Quest Kodiak 100  
Struck power lines during migratory waterfowl aerial observation  
no injuries – substantial damage

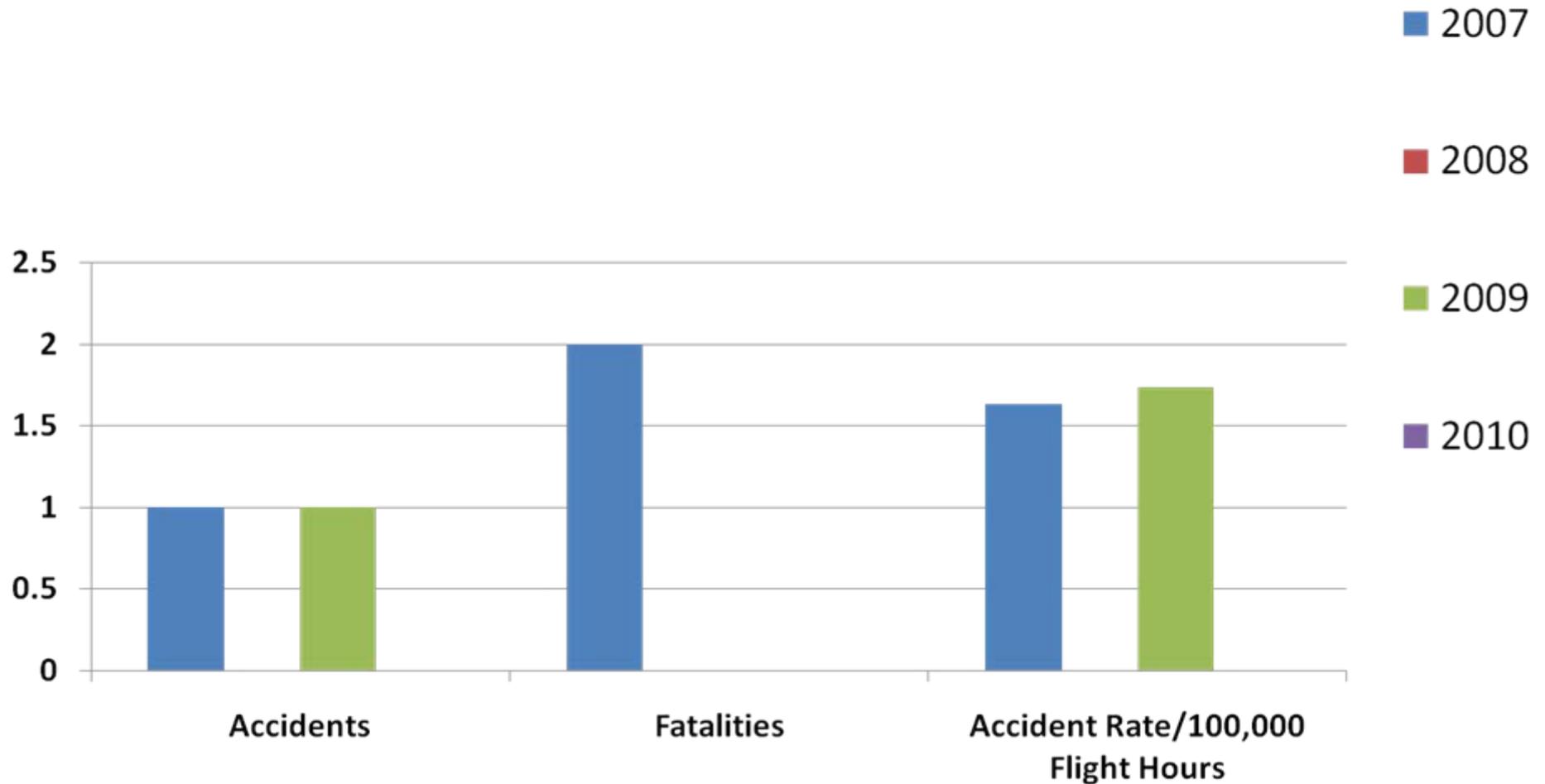
# 2010 Aerial Patrol Flight Hours – Industry Wide



# 2010 Aerial Patrol Accidents – Industry Wide



# 2010 Aerial Patrol Accidents - HSAC Participants Only



## 2010 Flight Hours Collected From the Following Operators

- Aero Plus
- Airborne Solutions
- Aviation Specialists
- Barr Air Patrol
- Blue Sky
- BP
- Chevron (rotorcraft)
- El Paso
- Enbridge
- Explorer
- KCSI
- Kenai
- Kenan
- NiSource
- Southern Union
- Reynold's
- Skywatch
- Spectra
- TAF
- TransCanada

# 2011 Notes

## U.S. and Canada Patrol Accidents/Incidents

- 1/2/11 Shoshoni, WY Piper PA-18 No injuries – Substantial aircraft damage - Public Use Wildlife observation flight - Engine power loss led to a forced landing
- 2/23/11 Clarksville, FL Cessna 172 No injuries – Substantial damage Aerial Observation Flight - Forced landing
- 3/19/11 Puyallup, WA Cessna TU 206G Minor Injury  
CAP training flight  
Began to sink when turning final
  - full throttle applied but “engine did not power up”
  - switched tanks on downwind and pump turned on

# 2011 Notes (continued)

## U.S. and Canada Patrol Accidents/Incidents

- 3/24/11 Ashland, ME Cessna A185F One Fatality  
Dept. of Inland Fisheries and Wildlife  
Possibly weather related (occasional ½ mile vis. - snow)
- 5/3/11 Yancey, TX Robinson R22 No injuries – substantial damage -  
aerial observation flight at 5 ft. (animal control – feral pigs) – fuel lever partially  
turned off possibly by clothing resulting in forced landing and roll over
- 5/5/11 Farmersville, TX Cessna 172 No injuries – substantial damage  
Fuel starvation (baggage auxiliary tank fuel pump quit transferring fuel and pilot  
didn't notice it quit - PIC total time 8341 hours)
- November – Mexico, MO Cessna 182 No injuries – struck propeller  
Missed the taxiway after landing (after sunset) and ended up in a deep ditch  
(incident details not confirmed by FAA or NTSB report – only verbal)

# 2012 Notes

## U.S. and Canada Patrol Accidents

- 1/3/12 Conroe, TX Cessna 172 - No injuries – Civil Air Patrol  
Substantial aircraft damage - Night flight - Engine power loss while landing  
led to forced landing on a city street - wing hit a utility pole

-



## HSAC Contributors – 2011

Apache Corporation	\$ 1,000
BHP Billiton Petroleum	\$ 1,000
BP Americas	\$ 1,000
Bristow U.S. LLC	\$ 1,000
ENI US Operating	\$ 1,000
Era Helicopters LLC.	\$ 1,000
Exxon Mobil Corporation	\$ 1,000
Greater Lafourche Port Commission	\$ 1,000
Hess Corporation	\$ 1,000
PHI, Inc.	\$ 1,000
Rotorcraft Leasing Co. LLC (2010 & 2011)	\$ 2,000
Skynet Satellite Communications	\$ 500
Tennessee Gas Pipeline	\$ 1,000
Trans Canada Pipeline	\$ 1,000

Total: \$ 14,500



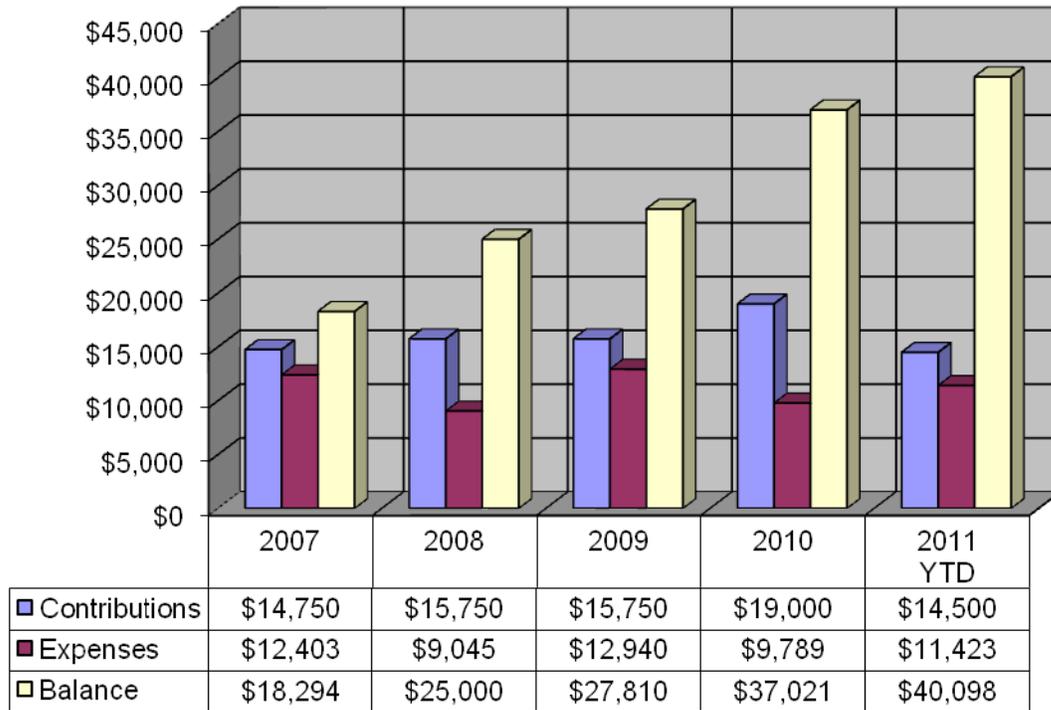
## 2011 HSAC Bank Account Activity 1 Jan – 31 Dec

<b>Opening Year Balance</b>	<b>\$ 37,020.60</b>
<b>Contributions</b>	<b>\$ 14,500.00</b>
<b>Expenditures</b>	<b>\$ 11,422.55</b>
<b>To Date Balance</b>	<b>\$ 40,098.05</b>
<b>Net Difference</b>	<b>+\$ 3,077.45</b>



# 2011 Summary

## HSAC Contributions vs. Expenses





## HSAC Contributors – 2012

Apache Corporation	\$ 1,000
Blue Sky Innovations, LLC	\$ 500
PHI, Inc.	\$ 1,000

Total: \$ 2,500



## 2012 HSAC Bank Account Activity 1 Jan – 15 Jan

**Opening Year Balance**                      **\$ 40,098.05**

**Contributions**                                      **\$ 2,500.00**

**Expenditures**                                      **\$ 967.52**

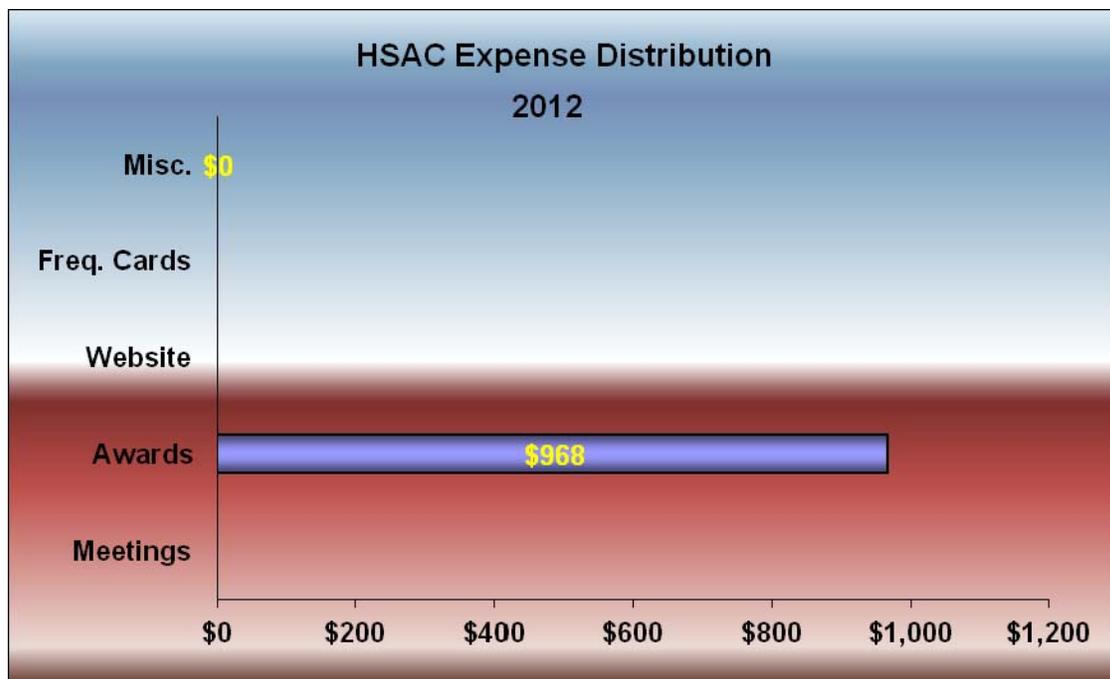
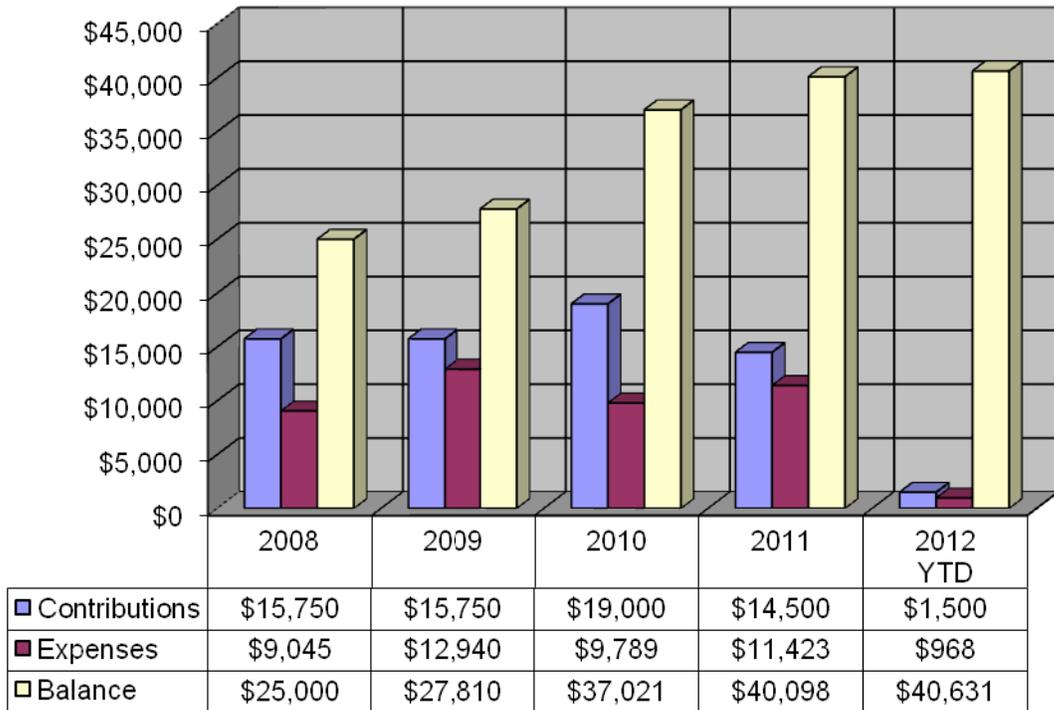
**To Date Balance**                              **\$ 41,630.53**

**Net Difference**                                      **+\$ 1, 532.48**



# 2012 Summary

## HSAC Contributions vs. Expenses



# Surveillance and Broadcast Services

## SBS Program Update

Presented to: HSAC

By: Andrew Shutt, Project Lead, Central US

Date: January 12, 2012

**ATTACHMENT #6**



Federal Aviation  
Administration

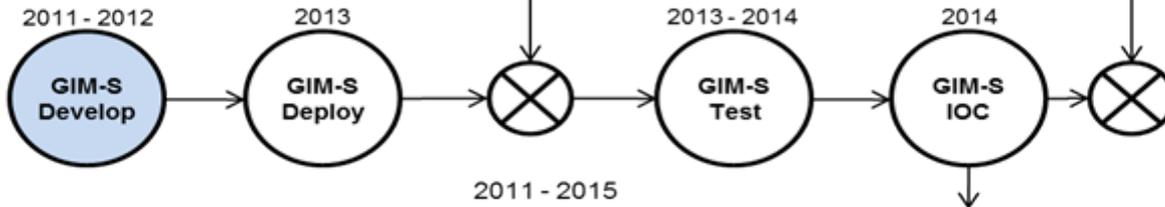


Service Delivery Points for ATC Separation Services							
	FY10	FY11	FY12	FY13	FY14	FY15	Operational
En Route	2	0	4	15	3	0	2 of 24
Terminal	2	1	16	45	52	43	3 of 159
Surface (Advisory)	2	0	17	12	9	4	2 of 44

In Process Complete

### ATC Spacing Services

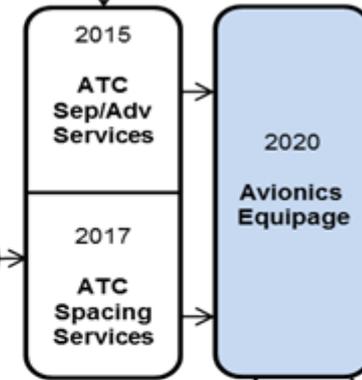
Ground-Based Interval Mgmt - Spacing (GIM-S) (En Route only)



Flight Deck Based Interval Mgmt - Spacing (FIM-S)

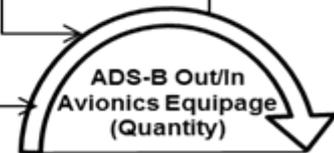
In Trail Procedures (ITP)

Traffic Situation Awareness with Alerts (TSAA)



TIS-B  
FIS-B  
ADS-R

Pilot Advisory Services								
	FY08	FY09	FY10	FY11	FY12	FY13	FY14	Actual / Planned
Radio Station Installations	11	43	211	101	14 of 134	184	46	380 of 730
Operational Radio Stations	339							



As of 11-21-2011

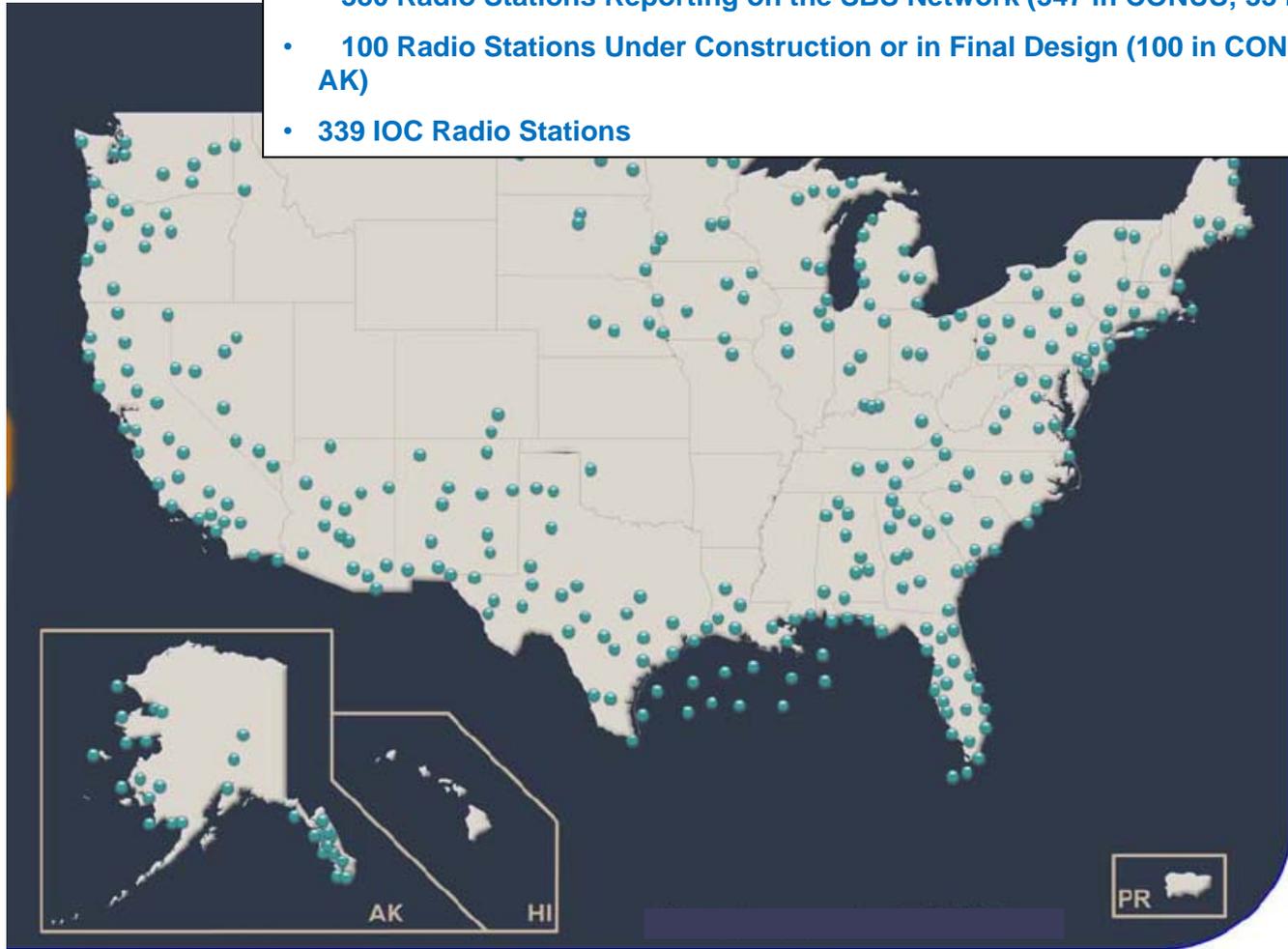


# Implementation Status

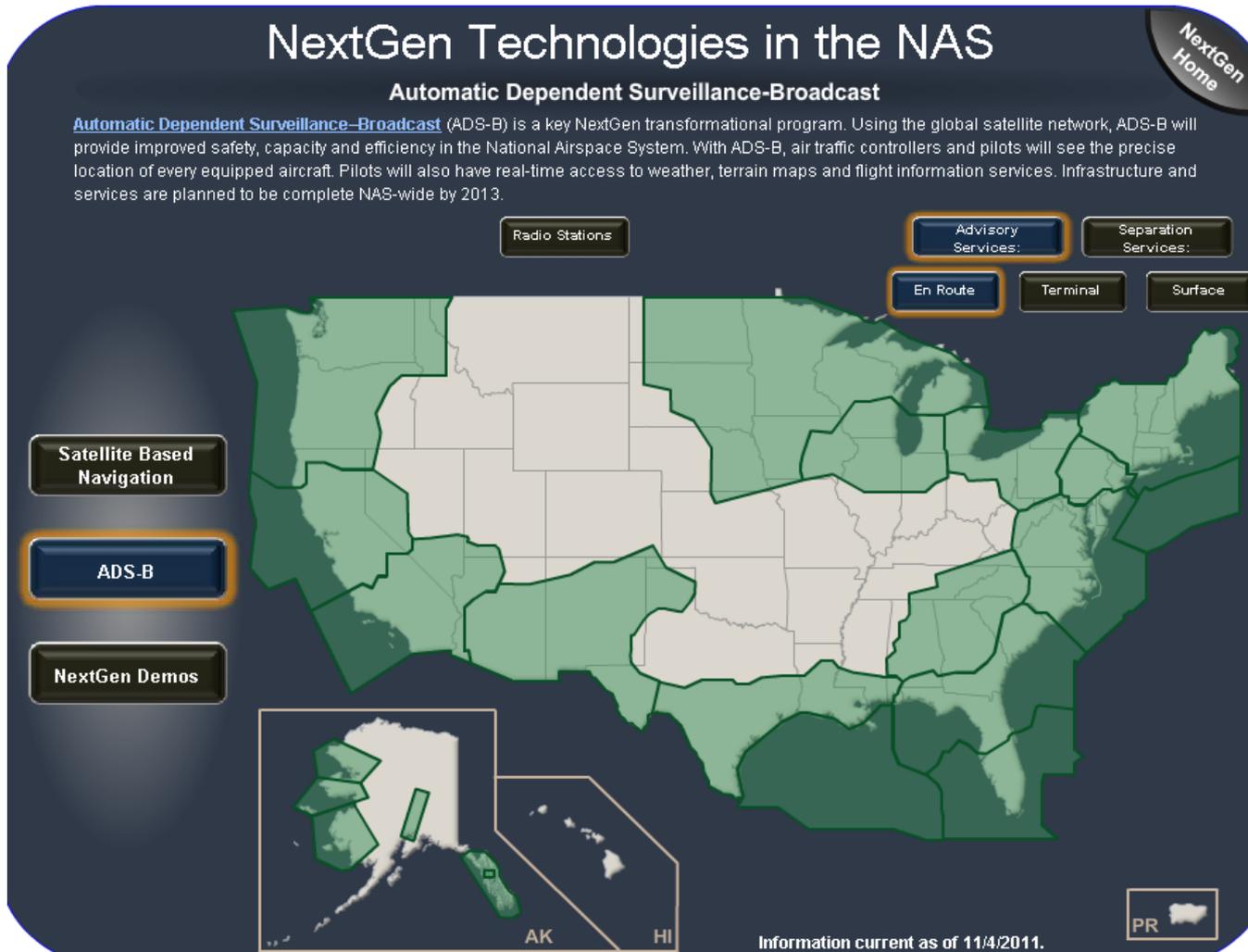
November 2011

<http://www.faa.gov/nextgen/flashmap/>

- Fiscal Year-End Plan for 2012 – 500 Radio Stations (467 in CONUS; 33 AK)
- 391 Radio Stations Constructed (358 in CONUS; 33 in Alaska)
- 380 Radio Stations Reporting on the SBS Network (347 in CONUS; 33 in AK)
- 100 Radio Stations Under Construction or in Final Design (100 in CONUS; 0 in AK)
- 339 IOC Radio Stations



# Broadcast Services Coverage Map

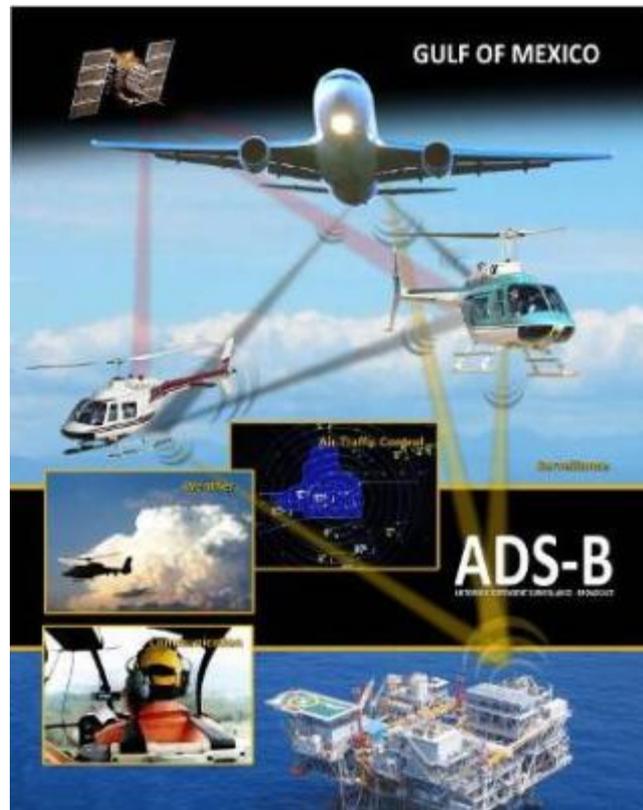


<http://www.faa.gov/nextgen/flashmap/>

# Separation Services: Central Service Area

## Key Site

- **Gulf of Mexico Service Delivery Point: Houston ARTCC Automation: HOST**
  - ERAM upgrade planned by end of March
- **Installations completed:**
  - VHF Communications: 9
  - ✓ **ADS-B: 21**
  - ✓ **AWOS: 35**
- **Installations remaining (provides further coverage south & redundancy):**
  - VHF – Communications – 1
    - **(Boxer) New Projected Completion Date--May 2012**
      - Shell decided to refurbish platform in 2012—will require removal /relocation of some FAA equipment --FAA building not affected
        - » All site prep/construction work stopped on 12/6/11; Shell to begin refurbishment in Jan
        - » FAA will complete equipment enclosure build-out in Jan—will save 2-3 weeks at end of schedule





# Gulf of Mexico Helicopter Upgrades

**Total of 44 IFR capable aircraft (34%) equipped under DO-260A for Gulf of Mexico**

- **Rockwell-Collins**
  - Upgrades S76/S92 helicopters--will benefit other operators in GoM and many fixed wing aircraft
  - Approval of TSO, STC and upgrade of S76/S92 aircraft equipped with TDR-94D Mode S Transponder to comply with FAA's Final Airspace Rule for ADS-B 'Out'
  - Meets RTCA/DO-260B standards
  - Planned completion date - January 2013
- **AW139 Upgrade**
  - SBS Program Office and AIR-130 cleared way for AgustaWestland to implement UAT in AW139—addressed air/ground determination and dual Mode 3/A code entry
  - STC under development using FreeFlight Systems RANGR-T avionics
  - The RANGR-T meets DO-282B standards and is TSO certified
- **Solutions for these types could benefit 64% aircraft**



# AWOS Wind Sensors Status

- **FAA committed to improving wind sensor reliability at locations with permanent wind NOTAMs: CRH, EIR, EMK, GBK, GRY, GUL, IPN, MIS, MIU, MYT, MZG, OPM, SPR, STZ, VAF, VOA**
- **Solutions under consideration include:**
  - Relocating wind sensors at 8 platforms
  - Developing software modification to report variable winds for 8 facilities
- **We identified the course of action for each wind sensor and completed the coordination necessary with ITT and AWI**
- **Working with AWI to develop software modification**
  - Currently undergoing factory testing



# Other Activities Under Consideration to Improve AWOS Service

- Relocate GPS antenna to enhance reliable dissemination of time and METARs
- Insert voice and text broadcasts of permanent wind NOTAMs
- Shorten VHF cable runs to improve power output at antenna
- Directed ITT to make these changes
  - May require additional site visits in coming months



# Other Updates

- **Relocate wind sensor at MC 474 (IKT AWOS)**
  - Scheduled for March, weather permitting
  - Commission site, remove test message
- **Relocate BQX AWOS from BA 451A to BA538**
  - FAA working with Transcontinental to schedule site survey
- **East Cameron 47JP will not require relocation**
  - Apache will allow FAA to keep AWOS on platform



# Other Updates

- **South Timbalier 301 AWOS (STZ) will need to be moved**
  - 6-12 months lead
  - Request recommendations, looking at ST 300
- **South Marsh 268A AWOS (SCF)**
  - Suffered major storm damage
  - FAA working to get damaged equipment replaced ASAP
- **Alaminos Canyon 25 AWOS (HHV) suffering telecommunications problems**
  - FAA working with Exxon and ITT to resolve problems



## Andrew Shutt

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