HELICOPTER SAFETY ADVISORY CONFERENCE
January 23, 2014
Four Points by Sheraton
New Orleans, LA

MINUTES

INTRODUCTION

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

HSAC WORK GROUP COMMITTEE REPORTS

RP2L Committee – Bob Williams

- RP2L-1: "New Build" is 80% completed
- RP2L-2: "Legacy Helidecks" - Richard Landrum
- RP2L-3: "Management" - Bill Schoder
- Request for HSAC GoM Statistics to complete report for 2013
- Our Chairman thanked Bob Williams and Dr. John Leverton for their dedication to the revision of RP2L.

Flight Following / ADSB / UAV – Terry Gambill

- Minutes: ***Attachment #1***
- HSAC Frequency will be out in February 2014 and color of the card is gray.
- John Beckman, Houston Center: Statistics
- AWOS at PHI Cameron (KL01) has been commissioned.
- Our Chairman introduced Todd Chase
  - UAS Operations: ***Attachment #2***

Technical Committee – Pat Robert

- Fatigue Management: ***Attachment #3***

Aerial Observation Committee – Tim Doty

- Minutes: ***Attachment #4***
- Shared incident 3rd party maintenance
- Tom Buchner – Safety Statistics
- Renewal process
- Fatigue Management RP 201301 final draft
- Distraction caused by automation – RP
- New business: 10 participants and 10 companies represent at this meeting. Need more involvement from utility operators.
- Impact of UAV on aerial patrol mission
- Tim Doty announced to the Committee that the May 2014 meeting would be his last as Chairman of the Aerial Observation Committee.

David Downey – Downey Aviation Services

- The automation seminar was well attended.
- Evaluation of regression analysis in training program with automation

HSAC COMMITTEE REPORTS

Treasurer's Report – Joe Gross

- Do the members want to continue to see contributors on the Treasurer's Report? Members responded unanimously – Yes.
- Treasurer's Report: ***Attachment #5***

Safety – Terry Kaufman

- Ed Malinowski, ASI: Accident Prevention
- ***Attachment #6***

Government Liaison - Steve Smeltzer (unable to attend)

- Brian Throop: Prepackaged plan for disaster response
- ***Attachment #7***

Martha Wood – Lockheed Martin

- Pilot Portal

Tony Randall – Bell Helicopters

- "Training is everything."
- Paperwork on polycarbonate 407 windshield is completed. Waiting on FAA to fly the 407.
- Bell has four (4) customers waiting on delivery of the windshield.
- This project, "All started with the guys in this room."
- Installed weight penalty is 20-pounds.

Heliport and Airways Committee – Ken Kersker

- Helideck paint scheme – compare API RP2L to RP 2008-01
- Venting Flare: Difficult situation to install warning system.

FAA ADS-B Program – Glenn Meier

- Challenge with platforms shutdown in shallow water.
- FAA Budget competing with many other operations.
- Air-to-Ground communication system on Anadarko *Lucius* at KC875
- Allen Overbey: No AIC meeting scheduled after HSAC meeting

HSAC in Trinidad – Mark Fontenot, Chairman

- Add to HSAC website?
- Invite members to attend US meetings

Next HSAC Meeting will May 14th and 15th – Hilton Garden Inn; 2350 West Congress Street; Lafayette, LA 70506 and The Cajun Dome Phone (337) 291-1977

Submitted by: Ronald L. Domingue Date: 05/03/2014
Ronald L. Domingue, Secretary

Approved: [signature] Date: 05/05/2014
Mark Fontenot, Chairman

HSAC ADS-B/Flight Following Workgroup **ATTACHMENT #1**

Meeting Minutes

January 22, 2014

Aeronautical Frequency Committee Meeting – November 5-7, 2013

1. The Aeronautical Frequency Committee continues to work to protect aviation interests from those who seek to obtain frequency spectrum and bandwidth at the expense of aviation.

2. Radio Inspection Issues included:

    a. Use of unlicensed frequencies

    b. Frequencies not marked on transmitters

    c. Radios are in an area that does not restrict access by unauthorized people.

    d. Power levels out of tolerance.

3. AFC has identified 4 potential threats to commercial aviation.

    a. 1300-1500 MHz long-range en route ATC radar

    b. 2700-2900 MHz primary surveillance radar

    c. Adjacent band issues with the 406.1 MHz SARSAT from IMT services in the 410-430 MHz band.

    d. Radio Altimeters operating at 2400-4400 MHz from IMT services in the 3400-4200 and 4400-4500 MHz frequency bands.

4. FAA has been requested to provide a presentation on radar technology at the next AFC meeting in Charleston.

5. We are looking at the first FAA Datacomm implementations in the 2015-2016 timeframe.

4. HSAC holds a position on the AFC Committee, with three operators as active contributors.

5. Upcoming meetings:

    a. Charleston, SC – February 11-13, 2014

    b. Vancouver, BC – June 10-12, 2014

Frequency Use RP

1. The workgroup developed an HSAC Recommended Practice for frequency use.

2. The RP addresses use of en-route, ground, CTAF, Fish-Spotter, and Offshore Air-to-Air frequencies.

3. The RP will be presented to the Steering Committee at the May meeting in Lafayette.

HSAC Frequency Cards

1. The HSAC Frequency card will be printed within the next month.

2. A form was made available for people to list a contact for their organization and to request cards.

Safety Item

1. We discussed what could possible cause calls to be missed or misunderstood.

2. We looked at possible consequences of missed or misunderstood calls.

UAV

1. Bryan Foster from Oceaneering gave a presentation on plans to operate UAVs around offshore platforms for inspection purposes.

2. Bryan wishes to work with HSAC to develop procedures for these operations in conjunction with helicopter activity.

Houston Center

1. Jacksonville ARTCC was unable to obtain travel funds to attend the meeting.

2. Jacksonville has no knowledge of low level operations in the Gulf, and will be receiving a presentation from some of the operators concerning the amount of activity in the Gulf, how the procedures work, and the Grid system.

FAA

1. Brian Throop, Manager, FAA Special Operations/Security briefed on upcoming security events.

2. Glenn Meier and Allan Overbey discussed existing and pending outages in the offshore ADS-B, AWOS, and communication system.

New Item

1. A request was made to establish a clearance delivery frequency in the Boothville/ Venice area. Glenn Meier and Allan Overbey will look into this request.

Attendance

1. There were fifteen individuals in attendance at the workgroup meeting.

ATTACHMENT #2

Unmanned Aerial Systems(UAS)

The Lockheed Kmax has delivered over 3 million pounds of supplies on over 1000 missions with just 2 aircraft in Afghanistan

The MQ-8C Fire X will enter service this year to resupply Navy ships

HSAC Update

Todd Chase – Aviation Advisor,
BP Global Aviation Services

FAA UAS Background

- Congress has mandated that the FAA integrate UAS into national airspace by 2015.
- UAS use falls into 2 sectors, public and civil
- Currently commercial(civil) operational approval of UAS requires:
  - a Special Airworthiness Certificate for each aircraft
  - *a type certificate in accordance with part 21 (An experimental type certificate prohibits "the carrying of persons or property for hire")*
  - *a Certificate of Authorization (CoA)*

Insitu Scan Eagle and Aerovironment Puma were issued restricted category type certificates in July 2013. Both are small UAS (under 55 lbs) with 9 foot and 5 foot wingspans.

FAA UAS Test Sites

The FAA has selected six UAS test site operators that will allow the agency to develop research findings and *operational experiences* to help ensure the safe integration of UAS into the nation's airspace

- **University of Alaska –** Develop standards for unmanned aircraft categories, monitoring and navigation. Alaska also plans to work on safety standards for UAS ops.
- **North Dakota Department of Commerce.** Develop UAS airworthiness data and validate high reliability link technology
- **State of Nevada.** UAS standards and operations as well as operator standards and certification requirements.
- **New York's Griffiss International Airport.** Test & evaluation as well as verification /validation processes under FAA safety oversight

FAA UAS Test Sites

- **Virginia Polytechnic Institute and State University (Virginia Tech).** Will conduct UAS failure mode testing and identify and evaluate operational and technical risks areas.
- **Texas A&M University – Corpus Christi.** Develop system safety requirements for UAS towards protocols and airworthiness testing

AUVSI published an economic impact study in March projecting, once airspace is opened to UAS, the economic impact would be about $8 billion statewide, and $260 million in South Texas over the next 10 years; creating about 1,200 jobs

FAA UAS Test Sites

Camber Corporation has been selected as the “technical lead” for the Corpus test site. Duties include:

- Flight Operations Support
- Flight Test Planning and Range Safety Concept of Operations development
- Range Research and Development and Analysis Support
- Selection and Management of all proposed subcontractors and Subject Matter Experts
- Development of key FAA required documentation

- For more information on the Corpus Christi test site contact:

Mr. John Attebury – FAA San Antonio FSDO,
John.H.Attebury@FAA.gov

Gulf of Mexico MQ-1 Operations

The 147th RW (Ellington Field) will participate in a national level exercise in April involving MQ-1 Predator support for an emergency response drill around a major maritime incident in Gulf of Mexico. (rig fire, sinking vessel, etc.)

Gulf of Mexico MQ-1 Operations

- MQ-1 is a 2200 lb UAS, with a 90 kt cruise and 22-24 hour loiter.
- USCG HH-65 will “chase” MQ-1 from Ellington, over Bolivar Peninsula, direct to Warning Area 147 D (20 nm SSE of GLS).
  - The chase aircraft is required to mitigate lack of “see and avoid”
- Once in warning area, the chase aircraft is no longer required.
- Operating altitudes could start as low as 6500 feet MSL.
- A 2 week exercise, but CoA is for 2 years.
- Operations for DoD assets outside warning areas require Secretary of Defense level approval.

Meeting Summary and Questions ??

ATTACHMENT #3

HSAC – RP
2012 -1
Fatigue
Management

Draft

Background

Aviation maintenance personnel face a particular risk of fatigue due to night shift work, the potential for long and unregulated duty times, and the sleep disruption that can result from these working conditions. Most countries do not have regulations or policies that address duty limits for maintenance personnel.

Aviation companies should develop a fatigue management plan that addresses duty time for maintenance personnel. This plan should be part of a comprehensive Safety Management System (SMS) model, through which hazards are identified and risk is managed.

Recommended Practices

1. **The following guidelines cover areas which may be considered when developing a pro- active fatigue management program.**

- Scheduled work periods should not exceed 12 hours in any 24-hour period
- No shift should be extended beyond 13 hours without management approval
- A break of at least 11 hours should occur between shifts
- There should be a work break every four hours

- Notes;
  - CHC Safety Summit fatigue risk management to be added/considered ; Action Bristow
  - HAI Risk Assessment tool from Eurocopter to be reviewed for possible inclusion - Action HAI

Detailed guidance can be found on the FAA web site:

https://primis.phmsa.dot.gov/crm/docs/FRMS_in_MX_OAM_TR_HobbsAversHiles.pdf

HSAC
Helicopter Safety Advisory Conference
Safety Through Cooperation
Since 1978

HSAC Aerial Observation Committee Meeting Minutes

Four Points Sheraton, New Orleans, LA, Wednesday, January 22, 2014

08:15: Meeting opened and introductions — Tim Doty – ExxonMobil Corp

- Reviewed meeting agenda; discussed review of action plan items

-- Talked about the low level waiver process and if there could be an effort to standardize the process for all operators; most of the issue is the difference between FSDO's and FAA regions. It was agreed to keep the topic on the table for further discussion and perhaps a good solution is to develop an information package for operator use to obtain or renew a low level waiver. Any information developed could be posted to the HSAC website.

-- The OGP AMG Appendix 11 was still listed on the action plan as an open item. John O'Neill (BP) stated the review of Appendix 11 was completed last year and info was incorporated in an HSAC RP. Tim Doty (ExxonMobil) provided copies of Appendix 11 to everyone. Item closed.

- Discussed open RP on fatigue management. Steve Bechtol (Skywatch) presented the final version of the RP. No issues or concerns from any members. Item closed.

- The use of electronic devices and other cockpit distractions was agreed to as topics for further discussion. Tim Doty (ExxonMobil) stated another HSAC committee is looking at an RP concerning cockpit distractions and that there is an all-day automation seminar this HSAC.

- Tim Doty (ExxonMobil) announced to the committee that the May 2014 meeting would be his last meeting as Chairman of the Aerial Observation Committee as he is taking on new responsibilities within his organization and will not be as involved with aerial patrol. Tim asked for a volunteer to replace him and will be contacting current regular attendees before the May meeting to determine interest and fill the upcoming vacant position.

08:40: Safety Moment – Proper use of checklists / procedures — Nick McLean – KCSI

- Nick discussed a recent incident involving an aircraft run-up by a maintenance facility. He stressed the importance of procedures and assuring sub-contractors follow safety guidelines.

08:52: Safety Statistics — Tom Buchner – Energy Transfer

- Tom presented the flight hours and incidents report. There was discussion on what accidents should be included. The group agreed on Tom's current criteria for including or not including accidents in the statistics. The reported flight hours have increased each year since Mr. Buchner began keeping the data.

- Everyone was encouraged to get hours in so they can be included and discussed at the May HSAC meeting.

09:30: Break

09:45: Presentation of RP201301, Fatigue Management — Steve Bechtol – Skywatch

- Changes made to fatigue management RP were discussed and approved by the group
- This RP, rev 22 January 2014, is being submitted as final draft, and it is ready to be posted to the website

10:00: New Business — Tim Doty – ExxonMobil Corp

- Meeting attendance was discussed
  - 10 participants, 10 companies represented at this meeting
  - Tim suggested more involvement from / with utility operators / companies. John O'Neill (BP) agreed to try to contact some operators / companies.
  - Cory Theriot (Shell) asked if virtual meetings or conference calls would increase attendance

- Future goals were discussed
  - Promote more attendance / participation is a primary goal
  - Discuss the roles of UAVs in the industry and the impact on aerial patrol. Tom Buchner (Energy Transfer) said Bob Morris with Houston Tracon may be willing to present info on UAV activity and offer a tour of the Houston Tracon.
  - It was mentioned that the HSAC website is a bit out of date. Cort Andrews (Barr Air Patrol) agreed to work on bringing the website information current and will work with Ron Domingue (HSAC Secretary).

10:20: Break

10:30: Special Presentation: Integrating QMS and SMS — Chris Young – Prism, LLC

- Chris presented information on integrating SMS and QMS programs

11:30: Group discussion

11:40: Meeting adjourned. Next meeting May 14-15, 2014 in Lafayette, LA

HSAC Contributors – 2013

All American Aviation LLC (2012 – 2013)	$1083.33
Apache Corporation	$1,000
Arbys Consulting Ltd. (Nigeria)	$1,000
Blue Sky Innovations LLC	$500
Bristow U.S. LLC	$2,500
Cenergy International Services, LLC	$1,000
Chevron NA E&P (API RP2L contribution)	$10,000
Chevron NA E&P (Dues 2012 – 2013)	$2,000
Construction Helicopters, Inc.	$1,000
D.J. Barbour Consulting, LLC	$500
Dart Aerospace Ltd.	$1,000
Energy Transfer	$1,000
ENI US Operating Co., Inc. (Direct Deposit)	$1,000
Era Helicopters LLC	$1,000
ExxonMobil Corporation	$1,000
Island Operating Company, Inc.	$1,000
Mayeux Flying Service (2012 &2013)	$1,500
Metro Aviation, Inc.	$1,000
PHI In. (API RP2l rewrite contribution)	$2,000
PHI, Inc	$1,000
RLC, LLC. (2012 & 2013)	$2,000
Trans Canada Pipelines, Ltd.	$1,000

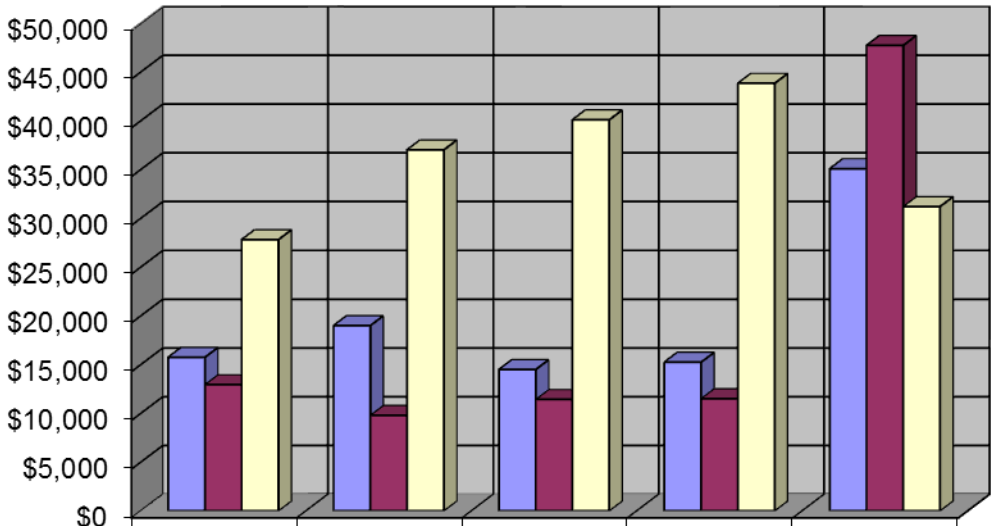
Total: $35,083.33

2013 HSAC Bank Account Activity
1 January – 31 December

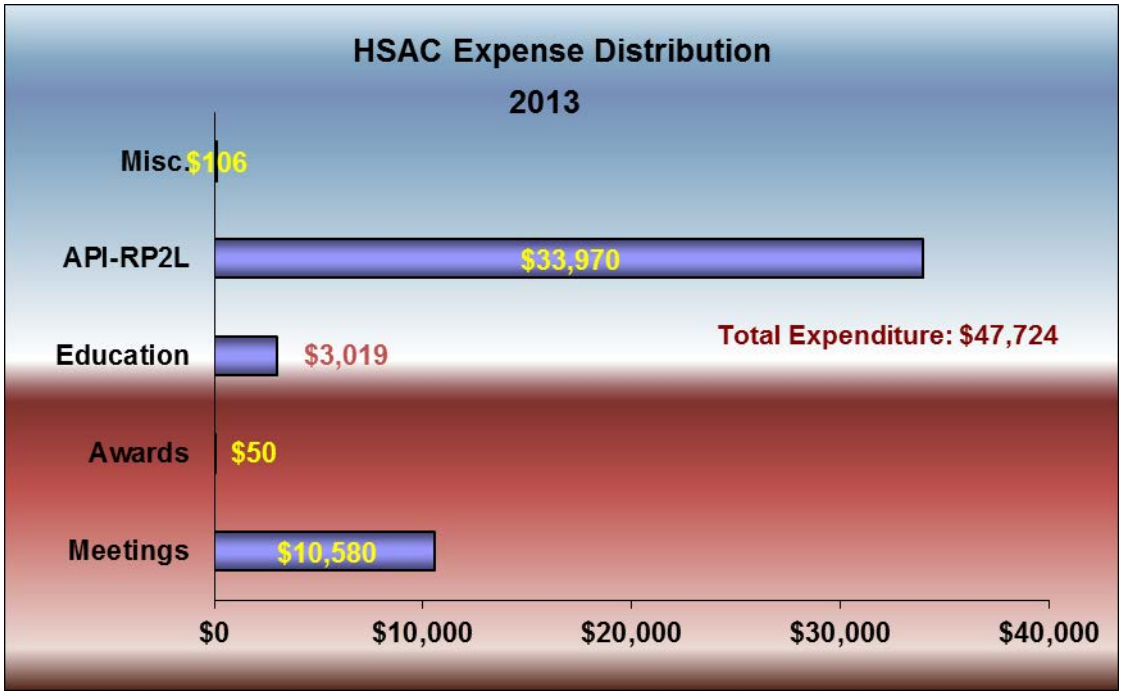
Opening Year Balance	**$ 43,840.11**
Contributions	**$ 35,083.33**
Expenditures	**$ 42,046.94**
To Date Balance	**$ 31,199.86**
Net Difference	**– $ 12,640.25**

2013 Summary
1 Jan – 31 December

HSAC Contributions vs. Expenses



	2009	2010	2011	2012	2013 YTD
Contributions	$15,750	$19,000	$14,500	$15,250	$35,083
Expenses	$12,940	$9,789	$11,423	$11,508	$47,724
Balance	$27,810	$37,021	$40,098	$43,840	$31,200



ATTACHMENT #6

National Transportation Safety Board

CEN13FA491
N53LP, Bell 407
August 13, 2013

Ed Malinowski, ASI

Overview

- Routine day, clear weather, wind 160-200 at 10
- Departing Ship Shoal about 1310 with 2 pax
- Heard a “BANG” as the helicopter achieved increasing airspeed during takeoff
  - Low rotor horn/light activated
  - Forward cyclic and activated floats
  - Engine out and engine control system warnings sounded
- Pilot and two pax sustained minor injuries

Overview continued

- Recovered wreckage - No airframe anomalies detected
- One float bag

  Puncture

NVM Findings

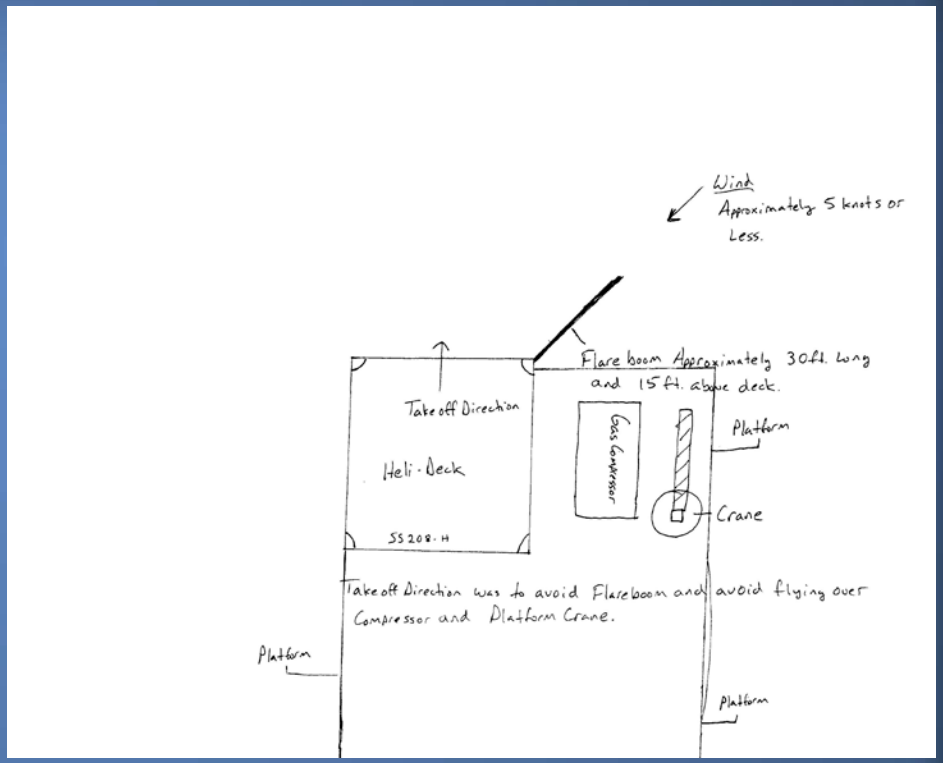
- Engine NVM download revealed
  - Confirmation of engine power loss
  - Engine operated at a high level with no engine environmental or loading changes
    - high engine torque
    - high rate of gas turbine acceleration
    - increased EGT
    - decreasing fuel flow command from the FADEC
    - constant collective and PLA command
    - constant ambient pressure and temperature
    - an engine surge condition.

NVM Findings Continued

- An engine flameout was detected
- An automatic engine relight sequence was performed and power to the rotor system was recovered

Safety Issues

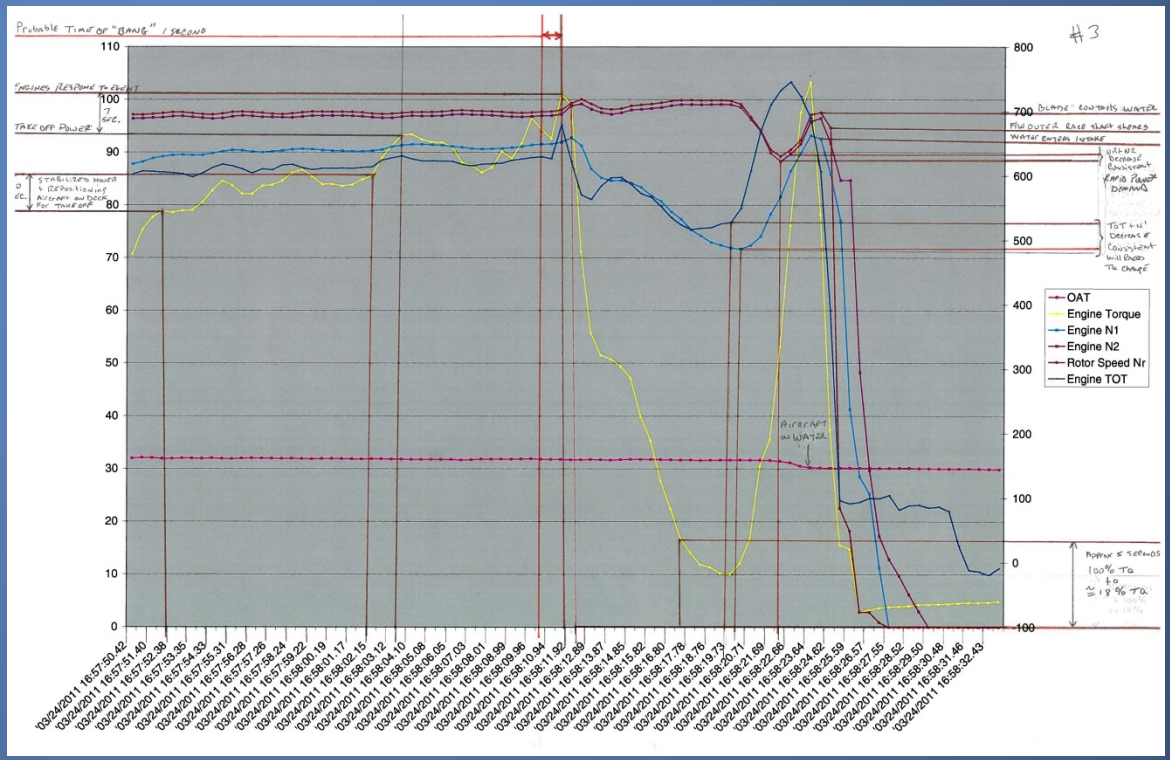
- Flare boom discharge can affect takeoff path
- No warning system of methane venting
- Methane volumes TBD



NTSB

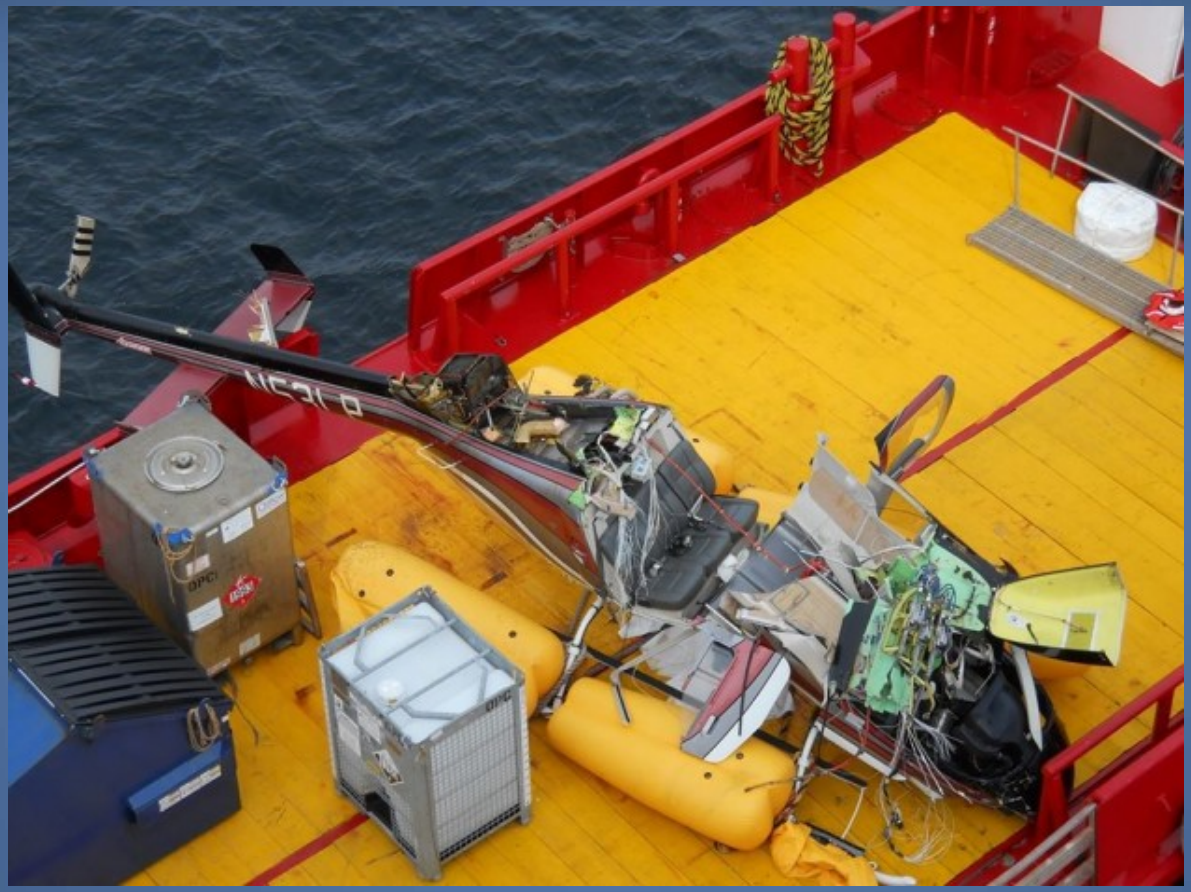
Prior Methane Ingestion Investigation - CEN11LA252

- Bell 206
  - NVM



NTSB

Questions?



National Transportation Safety Board

ATTACHMENT #7

Federal Aviation Administration
System Operations Security

Briefing to HSAC
New Orleans, LA

Airspace Security Update

2014 NSSEs and SEAR 1 Events

- **Jan 2014 State of the Union Address, DC**
- **Feb 2014 Super Bowl, MetLife Stadium, NJ**
- **April 2014 NCAA Final Four, TX**
- **July 2014 Possible multi nation mtg DC**
- **Sept 2014 UNGA, NYC**
- **Aug-Oct 2014 Midterm elections VIP travel**
- **Dec 2014 Presidential vacation HI ??**
- **2015 SB Phoenix 2016 Santa Clara, CA**

Stadium TFRs

- **During 2014 there will be over 5800 of these TFRs**
- **Includes all MLB, NFL, NASCAR Sunday races, Division 1 NCAA college games, Sunday Indy car races……that take place in stadiums capable of holding at least 30,000 people**
- **3nm/3000 feet from “the stadium”**
- **From one hour before until one hour after the game is completed**

Stadium TFRs

- **Authorized without waiver..DoD, LE, medical flights, flights authorized by ATC for operational purposes, and aircraft departing/arriving at an airport where normal procedures would take you into/thru the TFR**
- **With a waiver…flights supporting the events and flights for broadcast rights owner…NFL policy is no flights**
- **NOTAMs are not published for each game**
- **Major public concerns about the 5151..lack of definite start/stop time, lack of center point, not published…stadiums not on charts**

ADIZ Issues

- **Gulf operations…positive trend on unknowns continues**
- **East coast of Florida..still have pockets of increased unknowns**
- **Increased activity off the Alaskan coastline**

New Technology

- **Automatic Display and Processing Terminal ADAPT**
- **ADAPT integrates ATC and other radar systems, along with new forms of surveillance technologies, to provide a very comprehensive surveillance picture**
- **This picture is constantly filtered through numerous federal security databases, providing alerts to the operator**
- **System can be deployed and operated remotely for special events, disasters, etc**

2014 Outlook

- **Number of TFR and ADIZ violators continues to drop (fingers crossed)**
- **Terrorists are still actively exploring the use of aviation as both a weapon and terrorist tool**
- **Non metalic explosives threat**
- **Increase in UAS activity/technology presents both an opportunity and a threat**
- **Not if, but when……**

Questions and/or Feedback?

Brian Throop

Manager, Special Operations Security Group

Federal Aviation Administration

202 267 8691 office

202 538 9013 blackberry

Domestic Events Network 24/7

202 493 5107