



HELICOPTER SAFETY ADVISORY CONFERENCE

October 16, 2014

**Sheraton North Houston Hotel
Houston, TX**

MINUTES

AGENDA October 15 and 16th, 2014 (Attachment #1)

INTRODUCTION

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

VERNON E. ALBERT

Remembered

March 31, 1942 ~ to ~ September 11, 2014



Obituary is Attachment #2



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High Flight

By John Gillespie Magee, Jr.

"Oh, I have slipped the surly bonds of earth,
And danced the skies on laughter-silvered
wings;
Sunward I've climbed and joined the tumbling
mirth of sun-split clouds -
and done a hundred things You have not
dreamed of -
whirled and soared and swung high in the
sunlit silence.

Hovering there I've chased the shouting wind along and flung my eager craft through footless
halls of air.

"Up, up the long delirious burning blue
I've topped the wind-swept heights with easy grace,
where never lark, or even eagle, flew;
and, while with silent, lifting mind I've trod
the high untrespassed sanctity of space,
put out my hand and touched the face of God."



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HSAC WORK GROUP COMMITTEE REPORTS

Flight Following / ADSB / UAV – Terry Gambill

- Minutes: **Attachment #3**
- “HSAC Unmanned Aerial System Guidelines” (***Attachment #4***)

Aerial Observation Committee

- Tom Buchner – Accident/Incident Report
 - Participants in HSAC have less incidents than non-participants
 - Reviewing all RPs
 - UAS and Aerial Patrol Committee may combine

Mark Fontenot – BSSE

- Combined response to BSSE: **Attachment #5**

Treasurer’s Report – Joe Gross

- ***Attachment #6***

Vice Chairman – Bob Hall

- Mark Fontenot introduced Walter Chartrand (***Attachment #7***)

Safety – Terry Kaufman

- Introduced Pat Attaway, PHI Director of Operations, who presented a revised draft to RP 2010-4, “High Density Traffic Area (HDTA) Procedures. (***Attachment #8***)

Martha Wood & Joe Daniele– Lockheed Martin

- “Better Briefings, Safer Flights, Flight Service Modernization (***Attachment #9***)



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Bob Williams – RP2L

- Finished draft to API for vote in December 2014.

Steve Rauch – BSEE (www.bsee.com)

- Advance Notice of Proposed Rulemaking, Aviation Safety Study, NTSB Recommendations, and other Issues (**Attachment #10**)

BAYARDS – Hendrik Kaijim

- Aluminum Helideck Construction
- Office (832) 390-2544 / Email hedrik.kaijim@bayardsusa.com

FAA ADS-B Program – Glenn Meier

- Presentation **Attachment #11**

Fish Spotter – Mark Fontenot

- Fish companies do not own aircraft and now contact flight
- Safety Meeting in April 2015

<p>Next HSAC Meeting will be January 21 and 22, 2015 – Four Points by Sheraton French Quarter; 541 Bourbon Street; New Orleans, LA 70130 Phone: (504) 524-7611</p>



HELICOPTER SAFETY ADVISORY CONFERENCE

DATE 2 October 2014

TO: HSAC Membership

SUBJECT: **HSAC Meeting October 15th and 16th 2014**

Attached is the agenda for the October meeting of the Helicopter Safety Advisory Conference (HSAC).

Sheraton North Houston Hotel
15700 John F Kennedy Blvd. Houston Tx. 77032
www.Sheratonnorthhouston.com

October 15th

06:00 to 07:45 **Breakfast (On your own)**

08:00 to 12:00	Aerial Patrol Work Group	TBD
08:00 to 12:00	BSEE ANPRM Discussion combined with RP and Technical Committee Groups	
08:00 to 12:00	Mark Fontenot, Gary Tucker, Robert Patrick	
08:00 to 12:00	Flight Following / ADSB/ UAS	Terry Gambill Todd Chase

12:00 to 13:30 Lunch (On your own for work groups)

HSAC Work Group Reports

13:30 to 16:00	HSAC Work Group Reports	Mark Fontenot
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Advanced Notice of Proposed Rulemaking Discussion;

BSEE (Bureau of Safety and Environmental Enforcement) has issued BSSE - 2014-0001 on September 24th of this year. This proposal will have lasting effects on helicopter operations in the Gulf of Mexico, and may be adopted or referenced in other regions around the world. Therefore, the HSAC will develop comments and a position on this important NPRM.

The afternoon will be a working session to review the ANPRM in order to develop a response to BSEE. There will also be reviews of the work done by the Flight Following / ADSB, UAS and Aerial Committee work groups.

I would encourage all members to review the ANPRM prior to the meeting.

“SAFETY THROUGH COOPERATION SINCE 1978”

HELICOPTER SAFETY ADVISORY CONFERENCE Contd:

October 16th 2014

Heliports and Airways: RP2L1 Update

Kevin Tauzier

- Bob Williams

Industry Liaison Updates

Mark Fontenot

FAA ADS-B Program

- Update

Glenn Meier

4. Fish Spotter Activity

TBD

- New Business: General Discussion

Mark Fontenot

5. Closing Comments and the next meeting announcements.

6. FAA AIC meeting 13:00-14:00

Glenn Meier , Allan Overbey, Roseanne Albrecht and Rhonda Carraway

1200 to 1300 Sikorsky Luncheon for all members.

1300 to 1730 API RP2L1 Work Group Meeting

Bob Williams

2014-2015 MEETING DATES		
January 2015	January 21st and 22nd	Four Points by Sheraton New Orleans La
May 2015	May 12th and 13th	Hilton Garden Inn and Cajun Dome, Lafayette, LA
October	15th and 16th 2014	Sheraton North JFK Blvd Houston, TX

IN MEMORY OF
**VERNON E
ALBERT**

Obituary for Vernon Albert



Funeral services will be held on Monday, September 15, 2014 at 12:00 p.m. at First Baptist Church in downtown Lafayette for Vernon E. Albert, 72, who passed away on September 11, 2014 after a long battle with cancer.

Visitation with the family will be on Sunday, September 14 from 4:00 to 8:00 p.m. at Delhomme Funeral Home on Bertrand Drive, Lafayette and at 11:00 a.m. until time of service on Monday, September 15 at First Baptist Church. The burial will follow the service at Lafayette Memorial Park Cemetery.

A resident of Lafayette for over 40 years, Vernon was born in Lebanon, Pennsylvania on March 31, 1942 to the late Sarah P. and Carl H. Albert. The son of an Army officer, Vernon lived in Germany for six years starting in the late 1940's before his family settled in San Antonio, Texas.

Shortly after graduating from Douglas MacArthur High School and attending San Antonio Jr. College for two years, he went to work for the Army and Air Force Exchange Services, which eventually took him to Fort Polk, Louisiana where he met his future wife in August 1962. In 1963, Vernon decided to enlist in the United States Army. When Vernon went to New Orleans to take the Army recruitment test, the helicopter flight school program first opened up and he decided to stay a couple of extra days to take the test. He was sworn into the Army on Good Friday, 1963 by his father and recruiting sergeant. According to the sergeant, Vernon was the first pilot to join the Army to go directly to helicopter flight school and then into combat. While home on Christmas leave from flight school in 1963, Vernon and Reatha were married.

Upon completion of flight school at Fort Rucker, Alabama, Vernon was assigned to Vietnam as a combat helicopter pilot. While serving in Vietnam, he accumulated over 1000 combat flight hours and 2408 combat sortie hours. His service in Vietnam earned him the Distinguished Flying Cross for volunteering for a middle of the night mission to rescue Army advisors who were trapped in hostile territory with no means of escape. He was also awarded several Air

Medals and the Vietnam Cross of Gallantry for valor. He completed his Army career as a combat flight instructor at Fort Rucker, Alabama and was honorably discharged in 1967.

In 1967, Vernon joined Petroleum Helicopters, Inc. (PHI) as a helicopter line pilot. Earning his way to upper management, he served in management for 19 years and held the position of Vice President/Chief Pilot for 10 of those years. Vernon took every opportunity to serve the helicopter industry, not the least of which was being invited by NASA to fly as a guest test pilot in their microwave landing system tests in the late 1970's and early 1980's. Also during this time, Vernon had the opportunity to fly as an invited guest test pilot with Allison Detroit Diesel Aviation Engine Division. This project involved numerous flight test hours on enhanced engine performance and during which time he established three helicopter world speed records, which he still holds today.

Vernon was a long time member of Helicopter Association International (HAI), the association that manages the international helicopter industry. In the late 1980's, Vernon was elected by industry peers to six years of service to the HAI international board of directors, serving one of those years as chairman of the board. In 1995, HAI awarded Vernon the highest honor the industry has for service, the Lawrence D. Bell Memorial Award.

In 1994, Vernon retired from PHI and formed Albert & Associates, Inc., an aviation consulting firm servicing oil, insurance and aviation companies to enhance the safety of their programs. He was qualified in courts across the country as an aviation expert. However, one of the highlights of his career was the contract to work with the FAA in establishing the low altitude flight routes and the heliport system throughout the Atlanta area for the 1996 Summer Olympic Games. Vernon's career took him around the world, filling three passports along the way.

Vernon spent his spare time with his family and supporting his children and grandchildren in their endeavors. He coached girls soccer in Lafayette for 10 years, including 6 years with a select team that won five state championships and was first runner-up at the US Youth regional tournament in 1989. He assisted in coaching the Comeaux High School girls soccer team to the 1993 state championship.

If Vernon were to choose to be remembered in any capacity, he said it would be that he was a man who loved the Lord, who believed in family, prayer, and divine guidance. He was faithful member of First Baptist Church, Lafayette for over forty years where he served as a deacon, was a member of the same Sunday School class since 1973 and volunteered in several ministries over the years.

Vernon will be greatly missed by his wife of over 50 years, Reatha Albert; his two children, Jeff Albert and his wife, Dr. Jennifer Miles, and Andrea Albert and her husband, Chip Carriere; and his grandchildren, Jessica, Emily, Jordan, Blake and Austin, who affectionately called him "Pop." He is also survived by his sisters, Isabel Meloni and her husband, Louis, of San Antonio, TX and Joyce Rodgers of Enterprise, AL and his brother-in-law, Nolan Richardson and wife Bess of Lake Charles, LA, and sisters-in-law, Gloria Grogger and husband Dean of Overland Park, KS and Rhett Johnston and husband Tom, of Prairie Village, KS along with numerous nieces and nephews, an uncle and several cousins.

Vernon loved to spend time with his family and found it a privilege to take care of them. He and Reatha created a home where everyone was welcome. He was kind and humble and exemplified the fruit of the spirit (Galations 5:22-23). His family and friends will miss his gentle spirit, his big heart, his willingness to serve others, and his homemade ice cream.

Pallbearers will be his son, Jeff Albert; son-in-law, Chip Carriere; his grandsons, Jordan and Austin Carriere and Blake Johnson; and his brother-in-law, Nolan Richardson. The honorary pallbearers are the deacons of First Baptist Church, Lafayette.

The family would like to thank the medical staff at MD Anderson Cancer Center in Houston, TX, Dr. James Cole, Dr. Jason Shumadine, Dr. Edward Breau, Hospice of Acadiana and his nurse, Iggy Landry. In lieu of flowers, please consider a donation to the Miles Perret Cancer Services, 2130 Kaliste Saloom Rd., Suite 200, Lafayette, LA 70508, MD Anderson Cancer Center for research, P.O. Box 4486 Houston, Texas 77210-4486, or Hospice of Acadiana, 2600 Johnston St., Suite 200, Lafayette, LA 70503 or on their website at www.HospiceAcadiana.com.

Personal condolences may be sent to the Albert family at
www.delhommefuneralhome.com.

Delhomme Funeral Home, 1011 Bertrand Drive, Lafayette, LA is in charge of
funeral arrangements.

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HSAC ADS-B/Flight Following Workgroup

Meeting Minutes

October 15, 2014

Aeronautical Frequency Committee Meeting – June, 2014 – 18 in Attendance

1. HSAC has been a member of the Aeronautical Frequency Committee for several years. We have been allowed one voting member, and two alternates. This year AFC voted to allow HSAC members to become members under their company name. Therefore, HSAC now is represented by three companies, and gets three votes.
2. Wireless avionics (WAIC) is looking at sharing spectrum with radio altimeters.
3. Broadband over power line people are active again. AFC will be monitoring the situation to protect our interests from possible interference.
4. The FCC is helping Microsoft and Google in pushing for spectrum in the 5250 to 5850 spectrum. Some airborne weather radars and weather radars are in this spectrum, including terminal Doppler radars for wind shear detection.

Unfortunately, this will be a political decision rather than technical.
5. ITU has stirred up hard feelings with ICAO, by considering a short-term advisory group to study standardization of flight following procedures worldwide.
6. ICAO is looking at assigning non-ATS frequencies that would not be protected. This could be the first of the frequency sharing requirements we have discussed and monitored at AFC.
7. Harris Corporation has developed a simulator to predict the number of VHF channels that will be required to meet the predicted network capacity for the Data Comm program.
8. NASA has requested 4 temporary authorizations for 3 downlink (121.75 and 1 uplink (130.167) frequency. There is fear these could interfere with adjacent frequencies, such as, 130.150 and 130.175. 130.150 is the Fish Spotter Frequency for West of Grand Isle.
9. Radio Station Inspections continue with the usual findings, such as, unlicensed radios being used, licensed radios not being used, unlicensed frequencies being used, and radios not labeled with the frequency.

10. Station RFI Reports

There were no interference reports affecting HSAC member radios.

11. Harris Corporation and the FAA are conducting an analysis of FAA spectrum needs. ASRI is looking at the Gulf of Mexico, as part of this plan.

12. FCC is stepping up their inspection program, and is becoming very aggressive in the enforcement process. Fines in the hundreds of thousands of dollars are being levied in some cases. MAKE SURE YOU HAVE LICENSES FOR ALL FREQUENCIES YOU ARE USING!

13. FCC fees for 10-years license have increased from \$280 to \$430.

14. Future AFC Meetings

a. New Orleans, LA – October 21-23, 2014

b. San Juan, PR – February 18-20, 2015

HSAC Frequency Cards

1. The 2015 card will be blue with black text.
2. We reviewed the front side of the card at this meeting, and found about 30 changes. We are asking everyone to review their information on the card, and provide the information to David Robinson, as soon as possible.

Houston Center

1. Jacksonville ARTCC was unable to obtain travel funds to attend the meeting, but will hopefully be at the New Orleans meeting.
2. New Orleans Approach will have ADS-B coverage to the surface soon.
3. New discreet codes will be sent to operators in December.

UAV

1. John O'Neill, Brian Foster, and Ben Ratliff briefed the group on the latest information from the UAS workgroup. They presented the draft HSAC Unmanned Aerial Systems Guidelines to HSAC for discussion.

New Item

1. At the last meeting a request was made to establish a clearance delivery frequency in the Boothville/Venice area. We need to put together a sub-workgroup to work on this item.
2. Discussions with the FAA have revealed that the best option for the area is to place a GCO at one of the locations. Everyone would be able to access the Center through that GCO. This would be about a \$10,000 initial cost and then the AT&T monthly cost after that.

Space X

Space X is looking at launching off of the Brownsville area, starting in 2017. Launches will take place to the east out over the Gulf. They will be jettisoning portions of the the launch vehicle into the Gulf. They hope to launch one per month.



HSAC UNMANNED AERIAL SYSTEMS GUIDELINES

Background

An upsurge in commercial unmanned aerial vehicle (UAV) activity and an ever increasing number of manufacturers and operators has led to the establishment of these guidelines for use of Unmanned Aerial Systems (UAS).

The International Civil Aviation Organization (ICAO), a United Nations specialized agency created to promote the safe and orderly development of international civil aviation throughout the world defines an aircraft as "any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface. (ICAO Annex 1, Annex 6 Part I)." Additionally, ICAO Article 8 states "no aircraft capable of being flown without a pilot shall be flown without a pilot over the territory of a contracting State without special authorization by that State..." ICAO considers that UAVs are pilotless aircraft in the sense of Article 8.

Since the terms Unmanned Aerial Vehicle (UAV), Unmanned Aircraft System (UAS) and Remotely Piloted Aircraft (RPA) are often used synonymously, this document will use the term UAS to standardize and describe all unmanned aircraft systems. The intent of these guidelines is to consider the entire system, not just the vehicle being operated, when operating these aircraft. The UAS has four subsystems: aircraft, data links (control and return), ground control equipment, and the pilot/operator. In general, UAS operations can occur within visual line of sight (VLOS), extended visual line of sight (EVLOS) (within electronic line of sight of the ground control station), or beyond visual line of sight (BVLOS).

UAS may be controlled either manually by a pilot or autonomously through use of programming and autopilot and can vary in size from those weighing less than a pound to some the size of a commercial jet. Regardless of the size, the basic guidelines outlined below should be considered. They are not an exhaustive list nor should they be considered the only source to reference. These are basic guidelines which should inform a more detailed analysis of the operation proposed.

All UAS operators should have their UAS operations incorporated into a Safety Management System (SMS) consistent with the Oil and Gas Producer's Aircraft Management Guidelines (AMG). Although many of the elements in these UAS guidelines can be incorporated directly into a Safety Management System, they do not constitute a complete SMS. The UAS operator should maintain a comprehensive SMS that seamlessly integrates UAS operations into the entire system.

These guidelines are intended to provide information for personnel seeking UAS services or those desiring information to help manage service providers operating a UAS. They will be kept under review and updated and changed as necessary.



General

1. All UAS's shall be operated according to the governing country's aviation policy and legal requirements.
 - a. In the US there are currently limited authorized commercial UAS operations.
 - b. Some countries have authorized UAS commercial utilization. Verify any restrictions prior to conducting operations.
 - c. In the absence of governing regulations, ICAO UAS policies and guidelines should be followed.
 - d. A Notice to Airman (NOTAM) should be issued for UAS operations where required by the regulatory authority. NOTAMs should be filed by the PIC.
2. All UAS's should use "sense and avoid" technology on the aircraft and a mode "S" or ADS-B capable transponder whenever practical. Light UAVs (less than 7 kilograms without fuel) operating within visual line of sight below 400 feet are exempted from this policy.
3. All UAS's should be certified by a civil aviation authority as airworthy or accepted as airworthy if required by the respective relevant regulatory authority. A documented level of airworthiness through past military, commercial, or government use of the UAS should be considered if no airworthiness certification is available. The entity's Aviation Advisor should be notified of the operation, and the operations should not be conducted without the Aviation Advisor's approval.

Risk

4. UAS operations should be risk assessed through a Hazard Identification and Task Risk Assessment (HITRA) process. UAS operations should not be conducted without being risk assessed. Since many of the risks and mitigations within UAS operations involve aviation, the entity's Aviation Advisor should review all UAS risk assessments.
5. The UAS service provider's ability to safely operate and realistically meet the mitigations stated in the risk assessment must be evaluated by the entity's Aviation Advisor prior to commencing operations. In the event there is a significant change in the risk assessed flight profile, flight operations should cease. A new risk assessment should be accomplished in a controlled environment (not in the field) to avoid overlooking potential risks.

Operations

6. All UAS operations should be controlled by a remote pilot in command (PIC). Completely autonomous UAS operations should not be conducted. A remote PIC can control more than one UAV, depending on the level of autonomy.
7. Where UAS operations are conducted in civil airspace also used by manned aircraft, the PIC should be a licensed and current private or commercial pilot in manned aircraft.
 - a. A safety case should be submitted to the responsible aviation advisor addressing the ratings of the PIC as it relates to the UAS operation being considered. The potential to interact with manned aircraft, applicable civil aviation requirements, the size and capability of the UAS platform and the risk of the overall operation should be primary considerations in the type of certificate the PIC should hold.
8. UAS operations (including night operations) should utilize one or more trained visual observers to assist the PIC with see-and-avoid responsibilities by scanning the area around the aircraft for intruder traffic and assisting the PIC with navigational awareness. The visual observer(s) should have a reliable method of instantaneous communications with the PIC



such as two-way radios. Cellular phones are not considered reliable for this purpose.

The PIC and visual observer(s) together should have a view of the area that is sufficient to allow enough time for the PIC to de-conflict as required.

9. Daisy-chaining observers to increase operational distance should generally be avoided; however, operations involving daisy-chaining observers may be permitted if an acceptable safety case is presented by the operator demonstrating the risks are sufficiently managed.
10. Visual observers should be trained in areas such as aviation terminology, Visual Flight Rules (VFR), airspace requirements and applicable aviation regulatory requirements.
11. Visual observers shall meet any medical or physical requirements mandated by the appropriate civilian regulatory authority. (i.e. FAA class II medical exam)
12. Visual observers should be designated as such and not share in any other duties associated with the flight.
13. Visual Line of Sight (VLOS).
 - a. Operating within Visual Line of Sight means that the PIC is able to maintain direct, unaided (other than corrective lenses) visual contact with the unmanned aircraft, which is sufficient to monitor its flight path in relation to other aircraft, persons, vessels, vehicles and structures for the purpose of avoiding collisions. VLOS operations are normally accepted out to a maximum distance of 500 meters horizontally and 400 ft. vertically from the Remote Pilot. Operations at a greater distance from the PIC may be permitted if an acceptable safety case is submitted.
14. Extended Visual Line of Sight (EVLOS).
 - a. EVLOS operations are operations where the PIC is still able to comply with his collision avoidance responsibilities, but the need for the remote pilot to maintain direct visual contact with the unmanned aircraft is addressed via other methods or procedures. It is important to note, however, that collision avoidance is still achieved through 'visual observation' (by the PIC and/or UAS Observers.) All UAS operations should occur within visual line of site, or extended visual line of site range. Operations beyond visual line of sight are not recommended unless an approved method of aerial separation and collision avoidance exists and the operations are in accordance with the governing countries aviation policy.
 - b. The operator should submit a safety case including a risk assessment for the EVLOS operation. Factors taken into consideration should include:
 - i. The procedures for avoiding collisions
 - ii. Aircraft size
 - iii. Aircraft color and markings
 - iv. Aircraft aids to observation
 - v. Meteorological conditions and visibility, including background conditions (cloud/blue sky)
 - vi. The use of deployed observers
 - vii. Operating range limits - suitable radio equipment should be fitted in order to be able to effect positive control over the UA at all times
 - viii. Contingency plans for loss of link event
15. Weather Observation.
 - a. A reliable method of determining wind speed, ceiling and visibility should be used.
 - b. Weather observations should be taken near enough to the operation that it is certain that they are valid; for example, an airport's observations can be used if the airport is within several miles and the conditions appear to be uniform.
 - c. Ceiling may be determined by the temperature/dew point spread.



16. Night Operations.
 - a. Night operations may be considered if the operator provides a safety case and sufficient mitigation to avoid collision hazards at night.
17. Operations under Instrument Flight Rules (IFR).
 - a. Operations under IFR shall only be conducted if all governing regulations for IFR flight are met, including pilot and aircraft airworthiness certification requirements. A detailed safety case should be provided by the operator to ensure these extensive regulatory requirements are met.
18. All UAS operators should have prior sufficient operational UAS experience, ideally with government or military oversight and meet manufacturers and regulatory recommended experience, training and currency standards. This experience can be determined through:
 - a. Total pilot time of the individual operators controlling the specific UAS to be flown.
 - b. Total flight hours on the different UAS platforms the company operates.
 - c. Number of past operational UAS missions performed by the company with the desired class of UAS.
 - d. For Light UASs (under 7 kg without fuel) conducting operations within line of sight, a safety case may be presented to accept a reduced experienced level for operations with minimal risk or potential hazards. The remote pilot must still comply with all regulatory training, currency, and experience requirements.
19. Only the PIC should conduct radio communications.
20. The PIC should follow the radio communications protocol appropriate to the airspace.
21. Where communications are not specifically required by the civil aviation authority's regulations, such as in uncontrolled airspace (Class G), the PIC should announce on CTAF prior to launch, just after launch, periodically during operations, and after landing. Announcements should include at least:
 - a. "Unmanned" followed by the aircraft type and registration number; e.g. "Unmanned Puma 205AV".
 - b. Location of the aircraft, preferably with reference to a NAVAID, airport, or VFR reporting point.
 - c. Trajectory and speed or, if remaining in a localized area, the radius of that area.
 - d. Range of altitudes. All operators should have a flight operations manual approved by a competent authority. At a minimum, the manual should include procedures and checklist information for pre-flight, in flight, post flight, emergency procedures, and limitations. The operations manual should also include information on aircraft systems and performance.
22. Notification to other potential users of the airspace should be issued with ample time for those operators to plan appropriately. The following should take place prior to operations.
 - a. File NOTAMs
 - b. Notify local airspace users (in addition to NOTAM). Include at least:
 - i. Date and time range
 - ii. Precise location
 - iii. Altitude range
 - iv. Aircraft type and description (what to look for)
 - v. Frequencies monitored and call sign
 - vi. Contact information to coordinate, deconflict and exchange other information.
23. All UAS operations should include a pre-flight brief. The briefing should include at a minimum:
 - a. Mission overview.
 - b. Hazards unique to the mission being flown.
 - c. Check and brief applicable NOTAMS.
 - d. FSS/ATC notifications.



- e. Identify any special airspace and restrictions. (i.e. VFR corridors, restricted airspace, etc.)
 - f. Deconfliction plans for intruding aircraft.
 - g. Weather (current and forecast ceiling, visibility and winds).
 - h. Mission altitude.
 - i. Lost Link, divert and flight termination procedures.
 - j. Identification of any public or residential areas near flight path and associated privacy concerns.
 - k. Flight time and fuel/battery requirements.
 - l. Fuel reserves/minimum voltage requirements.
 - m. Frequencies to be used.
24. Immediately prior to each launch, the PIC should verify communications with the visual observer(s) and confirm that there is no conflicting air traffic.
25. All UAS operations should be conducted with sterile cockpit procedures during critical phases of flight. These include:
- a. Taxi and ground operations involving aircraft movement.
 - b. Take-off and landing.
 - c. All other flight operations in which safety or mission accomplishment might be compromised by distractions.
26. The use of cell phones and other electronic devices should be restricted to communications pertinent to the operational control of the UA and any required communications with Air Traffic Control.
27. Lost Link Procedures.
- a. There are many acceptable approaches to satisfy lost link requirements. The intent of any lost link procedure is to ensure airborne operations remain predictable.
 - b. Lost link procedures should comply with any regulatory requirements and the lost link solution will need to comply with the last Air Traffic Control (ATC) clearance if applicable.
 - c. The appropriate ATC facility should be notified immediately if applicable.
 - d. Lost link procedures should avoid flight over any populated areas and hazards, as well as any frequently travelled flight paths.
 - e. The time and duration of each lost link event should be recorded by the operator and reported through the incident reporting process.
 - f. The designated return site should be clear of any personnel and hazards in the event of an immediate lost link return to base and landing.

Maintenance

28. A maintenance program should be in place to ensure the airworthiness of any UAS being utilized.
29. This program should comply with all governing regulations and policy. The program should, at a minimum:
- a. Have a maintenance policy and a procedures manual approved by a relevant authority.
 - b. Be certified by the aircraft manufacturer.
 - c. Include a pre-flight and post flight inspection of the vehicle and have an associated logbook to track inspections.
 - d. Include a pre-flight and post flight inspection of the ground control station.
 - e. Incorporate a logbook to track flight hours and any inspection replacement times and life limited items. (i.e. batteries, rotors)
 - f. Software and hardware changes should be documented as a part of the maintenance



- procedures.
- g. Maintain a record of malfunctions (i.e. loss of link), anomalies and damaged parts.
 - h. A maintenance training and evaluation program for each operated system.
 - i. A quality assurance (QA) program should be utilized as a part of the overall safety management system (SMS).
 - j. Include both field and depot level maintenance intervals.
30. A minimum essential subsystem list (MESL) or similar list should be established for the entire system. The MESLs lay the ground work for reporting the status of aircraft, ground control station and communications link availability. They list the minimum essential systems and subsystems that must work on an aircraft, ground control station and communications. The MESL should include required equipment necessary for the specific mission and can include items such as ground control stations, sensors, back-up power supplies, aircraft lighting systems, transponder, back -up antennas, etc.

Training

- 31. UAV pilots should meet applicable civil aviation authority licensing, training and testing requirements for each class or type of UAS they will operate. The licensing should be appropriate and as required by aircraft type certification or determination of airworthiness. UAS type or class ratings may be determined on the basis of individual type in the case of larger aircraft, or by class for smaller ones under 20 kilograms.
- 32. All operators should have a training program to verify the air crew and observers meet the applicable requirements of the governing aviation regulator. The training program should be appropriate for each aircrew role, the environment and mission the operator is expected to perform.
- 33. If the UAV weighs less than 20 kg, the training program at a minimum should cover currency, evaluation, emergency procedure proficiency, systems knowledge and specialized tasks for the general class of UAS.
- 34. For UAVs greater than 20kg, training requirements should exist for the specific UAS.
- 35. All training programs should comply, or be consistent with any manufacturer's recommended training programs.

Communications

36. The communications control links are essential with all UAS operations. UASs should be operated in a reliable radio frequency environment that minimizes the probability of lost link and Radio Frequency (RF) interference with nearby systems. UAS operators should have a valid communications plan that considers:
- a. Every effort is made to ensure positive control of the UAS at all times.
 - b. A spectrum analysis to determine frequency strength, integrity, and areas of possible interference prior to UAS operations. The UAS should be operated in strict compliance with all provisions and conditions contained within the spectrum analysis assigned and authorized.
 - c. At a minimum, sources of possible radio frequency (RF) interference such as microwave antennas and high voltage lines should be identified and assessed prior to commencing operations.
 - d. Encryption of all command and return links when possible, or when sensitive information is being collected.



- e. All frequencies used to support safety-critical UAS functionality have been coordinated and licensed in accordance with the appropriate licensing regime.
- f. Quick access to back-up ground control systems.
- g. Immediate availability of secondary power supplies for the GCS and all antennas.
- h. Safe recovery of the vehicle in the event of loss of link.

Safety

- 37. All UAS operators should have an incident reporting system that tracks and reports all mishaps, potential mishaps, control link events, and near misses. This system should provide for analysis and improvements made as a part of the operator's Safety Management System (SMS). All mishaps, incidents and anomalies should be tracked and reported to the respective entity's aviation advisor and civilian aviation authorities when necessary.
- 38. Appropriate air traffic control should be immediately notified in the event of any emergency, loss of command link, loss of visual contact, or any other malfunction that would impact safety or operations.
- 39. Crew rest and crew mission day requirements, including consecutive days worked should be consistent with AMG section 5.6.4 and compliant with applicable regulatory requirements.
 - a. UAS service providers should have a comprehensive aircrew fatigue management program as a part of their Safety Management Systems.
- 40. All UAS operators should be equipped with any specialized equipment that may be required in the event of a mishap. For example, some composite material may require specific handling and equipment when the integrity of the composite is compromised.
- 41. Consideration should be given towards using UAS with redundant controls, automatic flight termination and/or flight recovery systems when operating near populated areas or sensitive infrastructure.



Glossary of Terms (UK, CAA and FAA)

Aircraft (ICAO)	Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the Earth's surface.
Command and Control Link (C2) (ICAO)	The data link between the remotely-piloted aircraft and the remote pilot station for the purposes of managing the flight.
Detect and Avoid (ICAO)	The capability to see, sense or detect conflicting traffic or other hazards and take the appropriate action.
Ground Control Station (GCS)	See 'Remote Pilot Station'. <i>Note: RPS is the preferred term as it enables the consistent use of one term with the same meaning irrespective of its location (e.g. on a ship or in another aircraft).</i>
Handover	The act of passing piloting control from one remote pilot station to another.
Lost Link (ICAO)	The loss of command and control link contact with the remotely-piloted aircraft such that the remote pilot can no longer manage the aircraft's flight.
Operator (ICAO)	A person, organization or enterprise engaged in or offering to engage in an aircraft operation. <i>Note: In the context of remotely-piloted aircraft, an aircraft operation includes the remotely-piloted aircraft system.</i>
Pilot	The person in direct control of the UA - See also 'Remote Pilot'.
Radio Line-Of-Sight (RLOS)	A direct electronic point-to-point contact between a transmitter and a receiver.
Remote Pilot (ICAO)	A person charged by the operator with duties essential to the operation of a remotely-piloted aircraft and who manipulates the flight controls, as appropriate, during flight time.
Remote Pilot Station (RPS) (ICAO)	The component of the remotely-piloted aircraft system containing the equipment used to pilot the remotely-piloted aircraft.
Remotely Piloted Air System*	An unmanned air system includes a number of elements such as the ground-based control unit, ground launch system and the Remotely Piloted Air Vehicle (RPAV) and all associated flight safety-critical elements.
Remotely-Piloted Aircraft (RPA) (ICAO)	An unmanned aircraft which is piloted from a remote pilot station.



RPA Observer (ICAO)	A trained and competent person designated by the operator who, by visual observation of the remotely-piloted aircraft, assists the remote pilot in the safe conduct of the flight.
--------------------------------	---

DRAFT



RPAS Commander*	RPAS Commander is responsible for the conduct and safety of a specific flight and for supervising the person in direct control of the RPAS. His duties are equivalent to those of an Aircraft Commander.
Sense and Avoid	See 'Detect and Avoid'.
Small Unmanned Aircraft (SUA)	Any unmanned aircraft, other than a balloon or a kite, having a mass of not more than 20 kg without its fuel but including any articles or equipment installed in or attached to the aircraft at the commencement of its flight.
Small Unmanned Surveillance Aircraft (SUSA)	A small unmanned aircraft which is equipped to undertake any form of surveillance or data acquisition.
UAS-p (legacy term)	See 'Pilot'.
UAV Pilot/UAV-p (legacy term)	See 'Pilot'.
Unmanned Aircraft (UA)	<p>An aircraft which is intended to operate with no human pilot on board, as part of an Unmanned Aircraft System. Moreover a UA:</p> <ul style="list-style-type: none"> - is capable of sustained flight by aerodynamic means; - is remotely piloted or capable of autonomous operation; - is reusable; and - is not classified as a guided weapon or similar one-shot device designed for the delivery of munitions. <p><i>Note: RPA is considered a subset of UA.</i></p>
Unmanned Aircraft System	An Unmanned Aircraft System (UAS) comprises individual 'System Elements' consisting of the Unmanned Aircraft (UA) and any other System Elements necessary to enable flight, such as a Remote Pilot Station, Communication Link and Launch and Recovery Element. There may be multiple UAs, RPS or Launch and Recovery Elements within a UAS.
Visual Line-Of-Sight (VLOS) Operation (ICAO)	An operation in which the remote pilot or RPA observer maintains direct unaided visual contact with the remotely-piloted aircraft.

DRAFT HSAC POSITION TO BSEE -2014-0001

For the reasons described above, BSEE seeks public comments on the following issues only.

(1) In addition to the statistical reports and summaries described in this notice, what other relevant, reliable data on accidents or other safety issues related to helicopters, helidecks, or aviation fuel systems on fixed offshore facilities should BSEE consider before deciding whether to propose any new regulations?

RESPONSE:

HSAC and OGP Safety Data, Standardized fuel hose fittings. Green Deck Procedures. Helideck Management and Helideck Markings, Improved Hazard Reporting.

2) Which existing domestic or international standards or guidance documents, if any, related to planning, design, construction, inspection, maintenance and/or use of helidecks on fixed offshore facilities should BSEE consider incorporating by reference in its regulations?

What would the potential cost impacts be if BSEE incorporated, and required compliance with, such documents?

RESPONSE:

API RP2L Series

(3) Which domestic or international standards or guidance for aviation fuel quality, storage, or handling should BSEE consider incorporating in its regulations for fixed offshore facilities? What would the potential cost impacts be if BSEE incorporated, and required compliance with, such documents?

RESPONSE:

Construction, Storage and Handling

(4) If you think that BSEE should consider incorporating any existing standards for helidecks or aviation fuel systems, please identify any specific provisions in those standards that BSEE should not incorporate, or that BSEE should modify or supplement before incorporation.

RESPONSE:

Open

(5) If you are a fixed offshore facility owner or operator, please describe how you currently address any existing industry or other standards regarding safety of helidecks and aviation fuel systems.

RESPONSE:

HSAC 2008-1 for markings of Helidecks, SEMS Operating Procedures, RP 2013-1 Helideck Parking Guides, API RP L3 once approved

(6) What differences between fixed and floating offshore facilities should BSEE consider with regard to whether any existing standards that apply to floating offshore facilities should be incorporated by BSEE for applicability to fixed offshore facilities? How important is it that requirements for helidecks and/or aviation fuel systems on fixed and floating offshore facilities be consistent?

RESPONSE:

API RP2L1 should incorporate and standardize with MODU Code etc.

(7) What provisions, if any, of USCG's regulations for helidecks on MODUs (46 CFR parts 108 and 109) should BSEE consider in developing any helideck regulations for fixed offshore facilities?

Response:

None

(8) If, as an alternative to requiring facilities to comply with specific standards, BSEE required owners or operators of fixed offshore facilities to develop aviation-related safety plans demonstrating how they would ensure safe helicopter, helideck, and aviation fuel management operations, how should BSEE ensure the adequacy of, and compliance with, such plans?

(a) For example, should BSEE or an accredited third party or some other entity conduct audits of such plans to verify the adequacy and proper implementation of the plans?

RESPONSE:

FAA 5010 GCR, SEMS

(9) If BSEE proposes to incorporate any existing industry standard or prescribe any other requirements for helideck lighting, what helideck perimeter lighting properties (e.g., specific color, brightness) should we incorporate or otherwise require?

RESPONSE

AC 150, NVG usage, Coast Guard rules for safety

(10) If BSEE decides to apply any new regulatory standards for helideck design or construction, and for aviation fuel systems, to all existing helidecks and fuel systems on fixed OCS facilities, even if that required retrofitting existing helidecks or aviation fuel systems, what types of costs would existing or aviation fuel systems, what types of costs would existing facilities potentially incur?

RESPONSE:

Engineering Studies, Transportation, Construction, Materials, Labor , possibility of loss of Production

(11) What structural, technical or economic issues related to the aging of existing offshore facilities and helidecks should BSEE consider when deciding how to improve aviation-related safety on fixed OCS facilities?

RESPONSE:

Aluminum Helidecks, passive firefighting systems

(12) Are you aware of any potential risks from helicopter engines ingesting methane or other gases vented from a fixed OCS facility and, if so, how should BSEE address those potential risks?

RESPONSE:

Methane Gas ingestion is a potential problem. Possible wind flow studies, gas sniffers, Status Lights

Work with Oil and Gas Operators to understand the issues with methane gas venting

Vapor Recovery Units, or Burning of the Gas

Work with the American Petroleum Institute to understand the possibilities of controlling Methane Gas



HSAC Contributors – 2014

Anadarko Petroleum	\$1,000
Blue Sky Innovations LLC	\$500
Bristow US, LLC	\$1,000
Era Helicopters, LLC (via BHP deposit)	\$1,000
PHI, Inc	\$1,000
Westwind Helicopters	\$1,000
Opito	\$500
Panther Helicopters	\$1,000
Energy Transfer	\$500

Total: \$7,500



2014 HSAC Bank Account Activity 1 January – 30 September

Opening Year Balance	\$ 31,199.86
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Contributions	\$ 7,500
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Expenditures	\$ 6,334.69
---------------------	--------------------

To Date Balance	\$ 32,365.17
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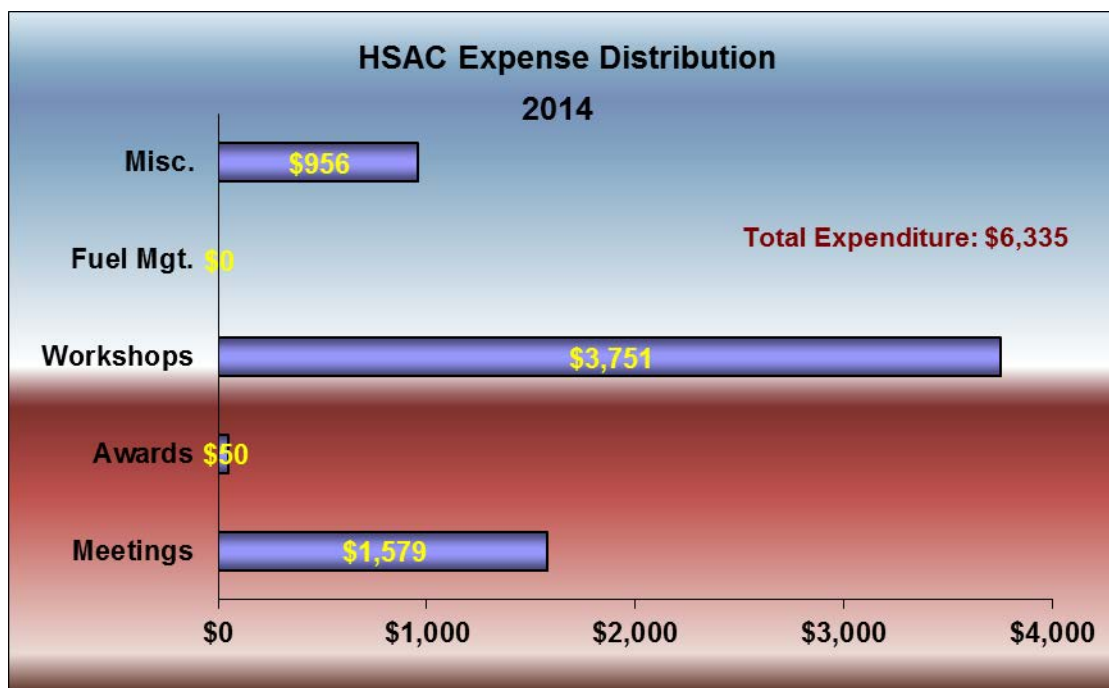
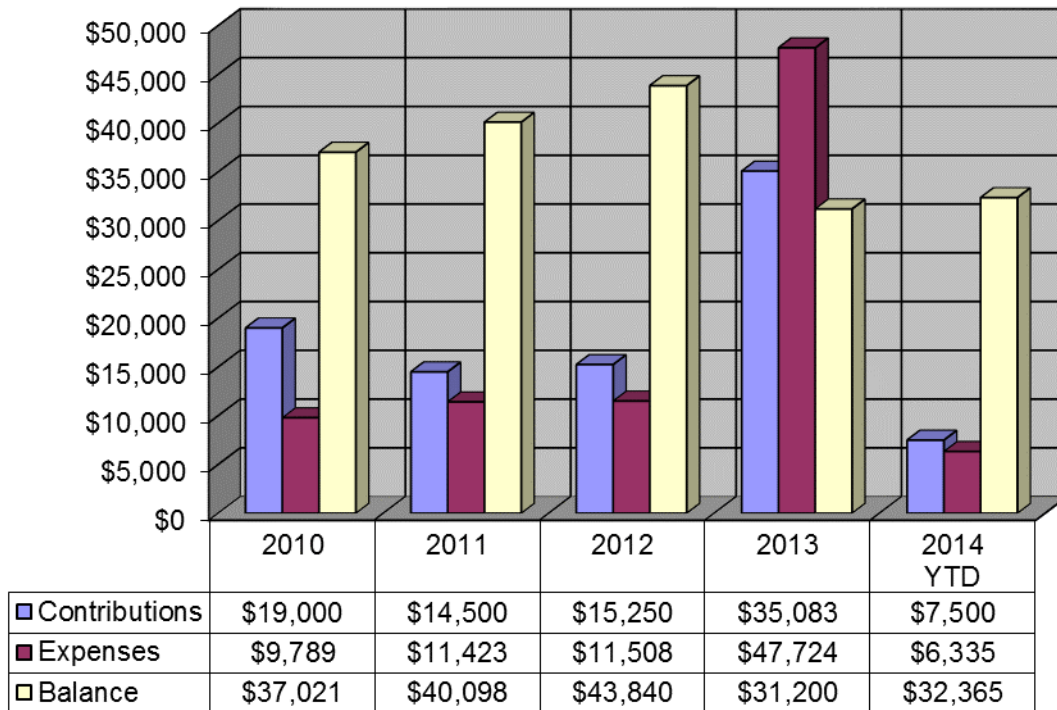
Net Difference	\$ 1,165.31
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2014 Summary

1 January – 30 September

HSAC Contributions vs. Expenses



Aviation Training Academy

- On-Site Training
- On-Line Training
- Third Party Audit/Inspection Services
- Fuel Handling & Quality Control Manuals
 - Production
 - Review
 - Training Video Production
- CAP 437 Audits
- Helideck Certifications
- Fuel System Design
- Safe HOT Fueling Practices

Aviation Training Academy

Segregate and Optimize Recommended Practices Checklists

Divide current **Jet Fuel Quality Control Inspection Checklist** into “task” specific checklists that will be uniquely specific to functions of;

- fuel product receipt
- fuel filtration and storage
- fuel quality control
- fuel transportation offshore
- aircraft refueling

Aviation Training Academy

Fuel Analysis Safety Tool – F.A.S.T. Forms
Use of Industrial x-proof iPad



Aviation Training Academy

Fuel Analysis Safety Tool – F.A.S.T. Forms

- Electronic Documentation
- “In Hand” Video Training for each task
- Email warnings/alerts
 - Notification should Task not performed
 - Alerts sent if Anomalies are discovered
- Allows for Remarks & Comments
- Photographic evidence
- Requires Signature



F.A.S.T Form

HOME USER MAINTENANCE STATUS PAGE AIRCRAFT FUELING ENTRY **FUEL FACILITY ENTRY** HYDRANT SYSTEM ENTRY REPORTS
JET FUEL RECEIPT ENTRY ENTRY MAINTENANCE CHANGE PASSWORD

Monthly Inspections Entry Screen

Check Date	09-28-14	Station, Facility, Airport, Tank	
Checked By	walter		
Filtration and Free Water Test	Satisfactory	Bonding Cable Continuity & Ohms	Satisfactory
Nozzle Screens	Satisfactory	Signs, Labels and Placards	Satisfactory
Floating Suction	Satisfactory	Fire Extinguishers	Satisfactory
Corrected Differential Pressure			

Remarks	Helicopter Operations
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Choose to image file to import

Choose File no file selected

Monthly Image Import

Images



**HSAC**

Helicopter Safety Advisory Conference

F.A.S.T Form

HOME USER MAINTENANCE STATUS PAGE AIRCRAFT FUELING ENTRY **FUEL FACILITY ENTRY** HYDRANT SYSTEM ENTRY JET FUEL RECEIPT ENTRY REPORTS

ENTRY MAINTENANCE CHANGE PASSWORD

Monthly Inspections Entry Screen

Check Date	09-28-14	Station, Facility, Airport, Tank	
Checked By	walter		
Filtration and Free Water Test	Satisfactory	Bonding Cable Continuity & Ohms	Satisfactory
Nozzle Screens	Satisfactory	Signs, Labels and Placards	Satisfactory
Floating Suction	Satisfactory	Fire Extinguishers	Satisfactory
Corrected Differential Pressure	8		
Remarks			

Choose the image file to import

Choose File no file selected

Monthly Image Import

Images



F.A.S.T Form

HOME USER MAINTENANCE STATUS PAGE AIRCRAFT FUELING ENTRY **FUEL FACILITY ENTRY** HYDRANT SYSTEM ENTRY REPORTS
JET FUEL RECEIPT ENTRY ENTRY MAINTENANCE CHANGE PASSWORD

Monthly Inspections Entry Screen

Check Date	09-28-14	Station, Facility, Airport, Tank	<input type="text"/>
Checked By	walter		
Filtration and Free Water Test	Satisfactory	Bonding Cable Continuity & Ohms	Satisfactory
Nozzle Screens	Satisfactory	Signs, Labels and Placards	Satisfactory
Floating Suction	Satisfactory	Fire Extinguishers	Satisfactory
Corrected Differential Pressure	<input type="text"/>		

Remarks	Helicopter Operations
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Monthly Image Import

Images



Aviation Maritime Services

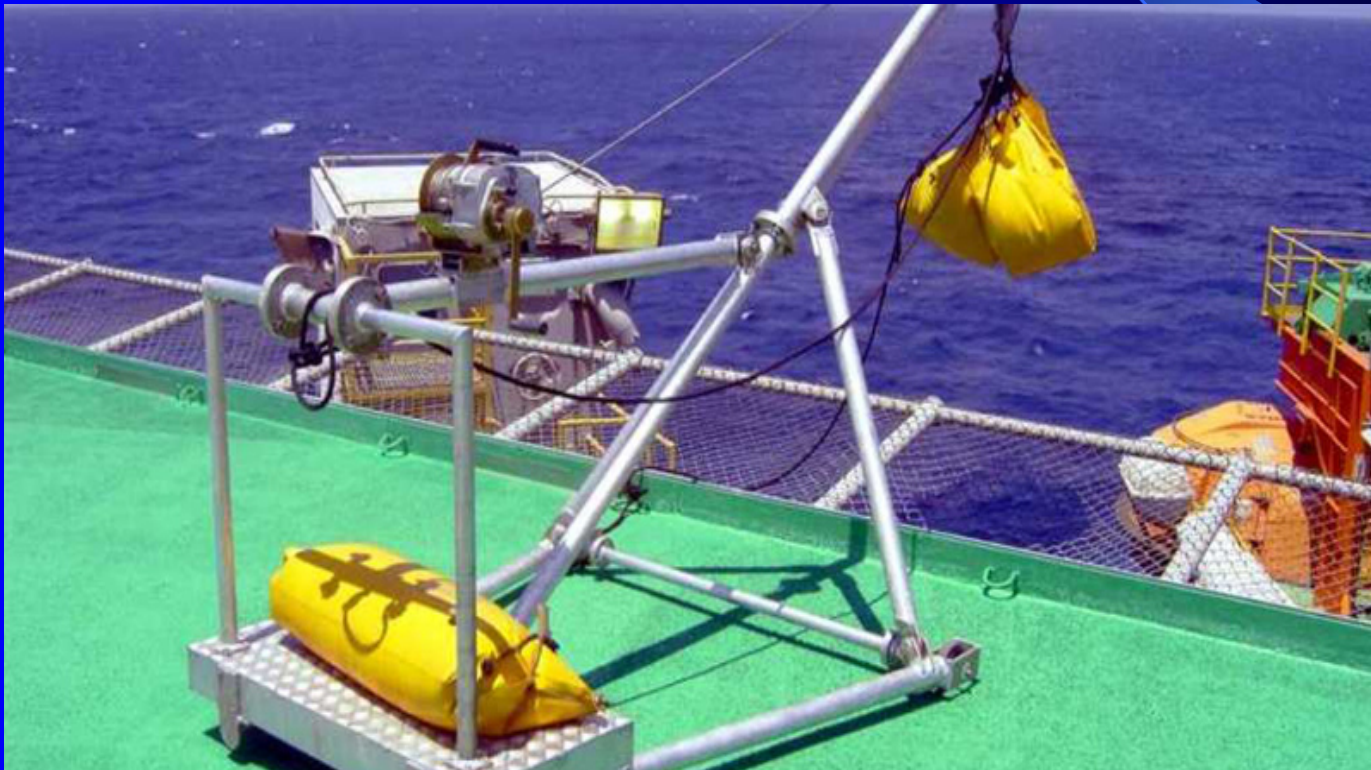
HELIDECK
SAFETY NET TESTING

Aviation Maritime Services

- Falls from heights are one of the most significant causes death and major injury
- Safety Nets offer passive Fall Protection
- Workers on Helidecks are particularly at risk
- OSHA, CAP 437, and UK Oil & Gas Guidance all have testing requirements

Aviation Maritime Services

- Static Testing
- Dynamic Drop Testing



Aviation Maritime Services

- Static Testing
- Dynamic Drop Testing
- Pull-Through Testing



Aviation Maritime Services

- Static Testing
- Dynamic Drop Testing
- Pull-Through Testing
- Tensile Strength Testing – Fabric ONLY



BS EN ISO 1806

Tri-Max Compressed Air Foam Fire Suppression Systems

30 *Wheeled-CAF*
Compressed Air Foam System



The Leader in CAFS Fire Suppression Technology since 1996



Aviation Maritime Services and Aviation Training Academy

We are at your service...

Walter P. Chartrand

281-386-8512

wpc@aviationta.aero

High Density Traffic Area (HDTA) Procedures

NOTE: Recent years within the Gulf of Mexico has shown an increase in bird activity and resultant bird strikes. Consideration should be given to reducing airspeed when operating at lower altitudes, or flying at altitudes above 1,000' AGL to avoid higher densities of bird activity.

NOTE: High density traffic area maps can be found on the HSAC website under library.

All VFR Traffic Should Use the following Altitudes (Wx permitting) Within 10 nm of a HDTA

<u>Magnetic Heading</u>	<u>ALTITUDE</u>
0° to 179°	750' 1,750' 2,750'
180° to 359°	500' 1,250' 2,250'

Inbound Traffic Should

1. Remain at the appropriate altitude listed above until in position to make a normal descent in preparation for landing.
2. Call 10, 5, and 2-nautical miles from the intended destination, giving altitude and direction from the destination.

HELICOPTER SAFETY ADVISORY CONFERENCE – RECOMMENDED PRACTICE

3. Call landing at the destination or on short final if radio communication is not possible with airborne traffic after landing.

Outbound Traffic Should

1. When departing a heliport within the HDTA, call prior to taking off and wait a few seconds to allow other traffic to respond.
2. Execute a climb without delay to the appropriate altitude listed above, or other altitude above 3,000'.
3. Call clear when 10 nm from the departure point, including altitude and direction.

Local Traffic Should

Traffic passing through the HDTA should do so at one of the altitudes listed above.

1. Call 10nm from the traffic advisory area giving altitude and intended route of flight through the HDTA.
2. Call clear when 10 nm from the center of the HDTA.

**The landing/pulse light Should be ON during operations within a HDTA.
DO NOT OVERFLY ANY HELIPORT BELOW 500'.**



Better Briefings, Safer Flights

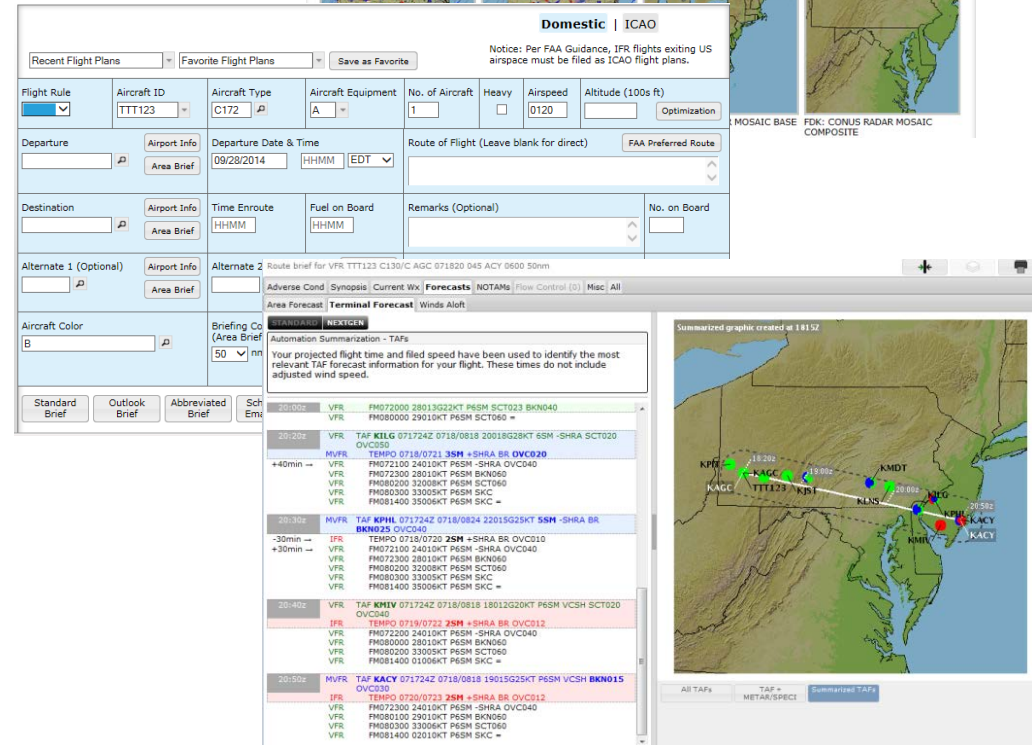
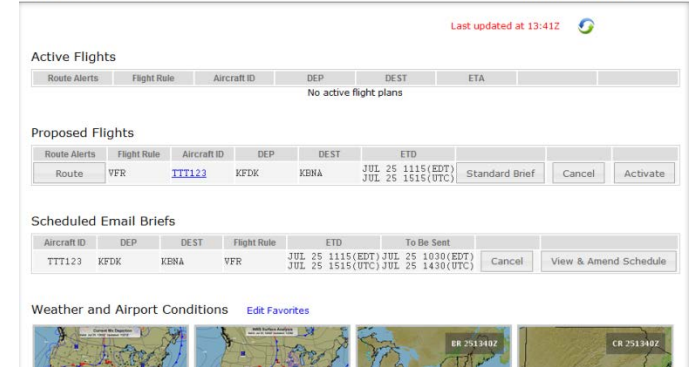
Flight Service Modernization

September 29, 2014



Pilot Web Portal

- www.1800WxBrief.com
- 18,000+ registered users and growing
- Free
- Significant safety features not available elsewhere
- Briefing capability mimics specialist techniques



Implementing Commercial Model Now

Commercial
Marketplace

Flight Planning Website & Mobile App Vendors

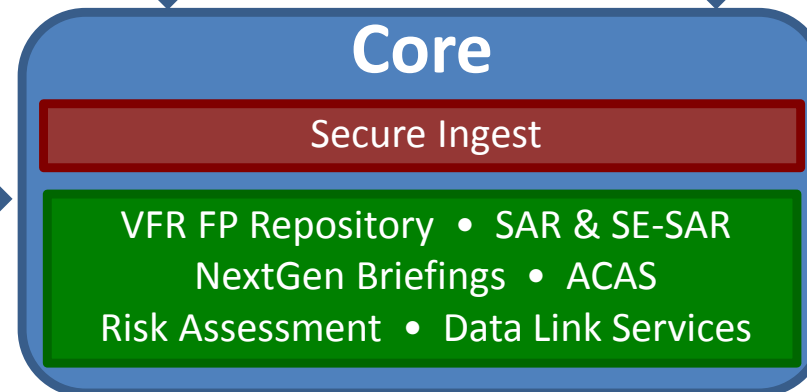
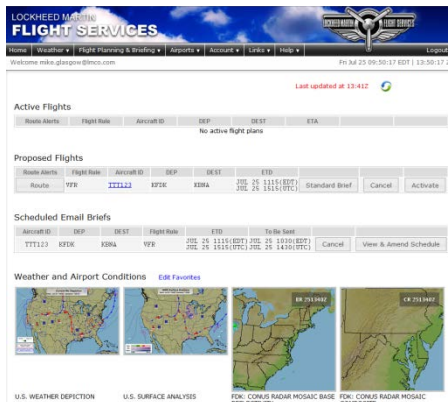
Position Reporting & Datalink Vendors



Web Services

✓ Operational now
✓ Operational 2014

Lockheed Martin Pilot Web Portal





Traditional Online Briefings

Voluminous

Archaic Presentation

Difficult to Assimilate

Pilots Still Call Specialists

Regulatory Compliance \neq Safety

Common SOP: Check the Box – Print 50 Pages and Throw in Flight Bag,
“Brief” some other way

NextGen Briefings

- Make briefings valuable
- Easier/faster to read and understand
- Using graphics, automatic summarization, smart plain text translation, filtering, automatic time analysis...
- Make self-service environment viable for larger number of pilots

Typical METAR Data



METAR KAOO 082353Z AUTO 22017G27KT 10SM OVC085 14/09 A2993 RMK AO2
PK WND 23031/2337 RAE43 SLP135 P0001 60013 T01440089 10167 20128
58025

METAR KJST 082354Z AUTO 21016G25KT 6SM -RA BR FEW008 OVC012 11/09
A2992 RMK AO2 PK WND 22029/2337 SLP134 P0001 60027 T01060094
10122 20106 56021

SPECI KJST 090014Z AUTO 22016G26KT 6SM -RA BR BKN008 OVC013 10/09
A2991 RMK AO2 PK WND 21026/0005 CIG 006V009 P0000
no reports available for HMZ

METAR KCBE 082355Z AUTO 16004KT 10SM SCT065 SCT100 16/10 A3000
RMK AO1

METAR KCBE 090016Z AUTO 17004KT 10SM SCT090 16/10 A3000 RMK AO1

METAR K2G4 082355Z AUTO 21014G19KT 10SM BKN019 OVC024 10/08 A2999
RMK AO1

METAR K2G4 090015Z AUTO 21016G26KT 10SM BKN019 OVC024 10/08 A2998
RMK AO1

METAR KW99 082355Z AUTO 21008KT 10SM BKN080 BKN090 18/08 A3001 RMK
AO2 T01840082 10227 20175

METAR KW99 090015Z AUTO 19006G17KT 10SM BKN080 BKN090 19/08 A3001
RMK AO2 T01850082

METAR KW99 090035Z AUTO 20008G17KT 10SM BKN080 OVC100 18/08 A3000
RMK AO2 T01820082

METAR KEKN 082351Z AUTO 16006KT 10SM BKN060 OVC090 13/09 A3004 RMK
AO2 RAE43 SLP176 P0000 60002 T01280089 10194 20122 58013 TSNO

METAR KW22 082355Z AUTO 20012G19KT 10SM FEW055 13/10 A3002 RMK AO2

METAR KW22 090015Z AUTO 21012G23KT 10SM -RA FEW032 SCT042 BKN048
13/09 A3002 RMK AO2

METAR KW22 090035Z AUTO 22013G21KT 5SM HZ BKN033 OVC041 13/10
A3003 RMK AO2

NGB METARs – Overview Page

Route brief for VFR TTT123 C130/C PIT 072000 045 ACY 0600 ALT1: MJX 50nm

Adverse Cond Synopsis **Current Wx** Forecasts NOTAMs Flow Control (0) Misc All

METAR PIREP

STANDARD NEXTGEN

Previous 1 of 6 Next

Automation Summarization - METARs

Use the Next Button to step through different sections of the METAR reports

Departure:

▶ VFR KPIT 071851Z 27011G22KT 10SM BKN036 OVC050 15/06 A2991
RMK AO2 SLP132 BINOVCT01500061

Route:

▶ UNKN KBVI METAR not available

▶ VFR KAFJ 071915Z 26011G19KT 10SM FEW037 BKN060 14/05 A2996
RMK AO1

▶ VFR KBTP 071915Z AUTO 24012G23KT 10SM SCT033 BKN041 OVC050
13/05 A2994 RMK AO1

▶ VFR KAGC 071853Z 26013G21KT 10SM SCT040 BKN055 14/06 A2991
RMK AO2 SLP129 T01390056

▶ VFR KLBE 071847Z 25013G17KT 10SM SCT041 BKN050 14/06 A2992

▶ UNKN KIDI 071915Z AUTO 29011G18KT 10SM 13/07 A2992 RMK AO2

▶ VFR KJST 071854Z AUTO 26013G26KT 10SM BKN039 BKN048 11/05 A2990
RMK AO2 PKWND 25026/1845 SLP122
T01060050

▶ VFR KAOO 071853Z AUTO 27015G20KT 10SM BKN034 OVC048 14/08
A2989 RMK AO2 PKWND 27026/1811 SLP115
T01440083

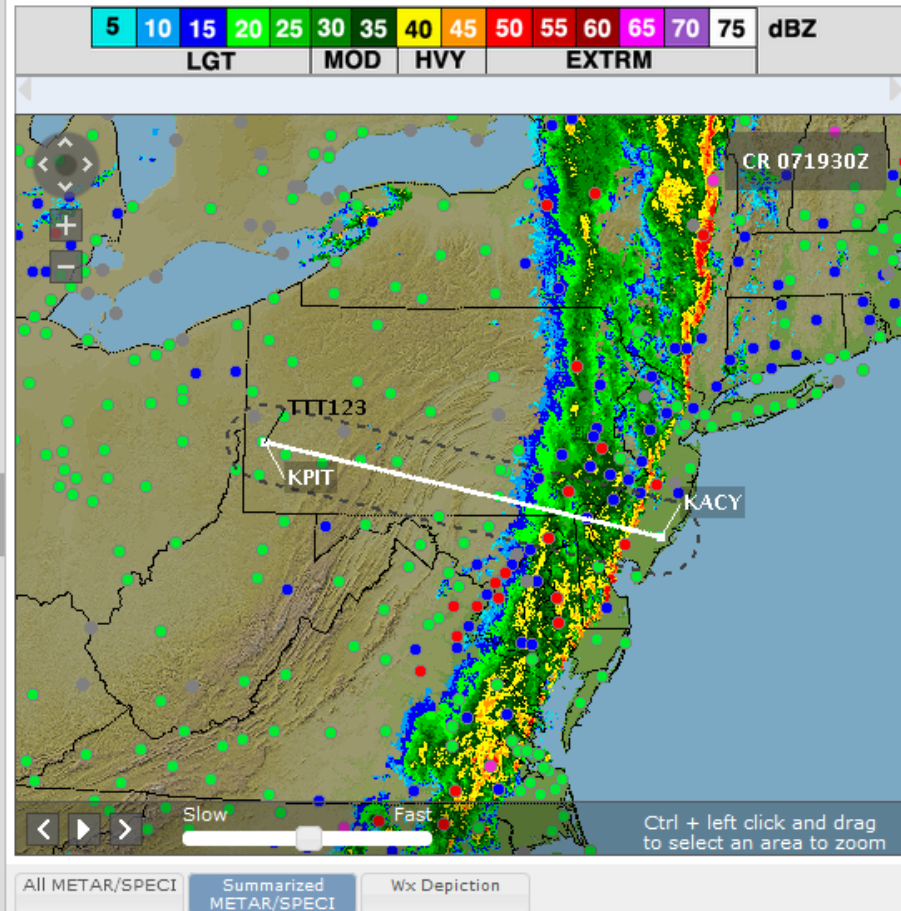
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SLP123 T01670133

▶ VFR KCXY 071856Z 29005KT 10SM -RA FEW033 BKN060 OVC080
16/14 A2987 RMK AO2 RAE24B41 SLP113 P0002
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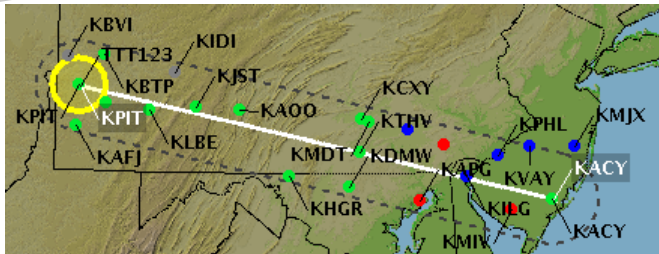
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▶ VFR SP KTHV 071909Z AUTO 24003KT 10SM FEW008 SCT019 OVC060 16/14
A2987 RMK AO2 RAE00 P0000

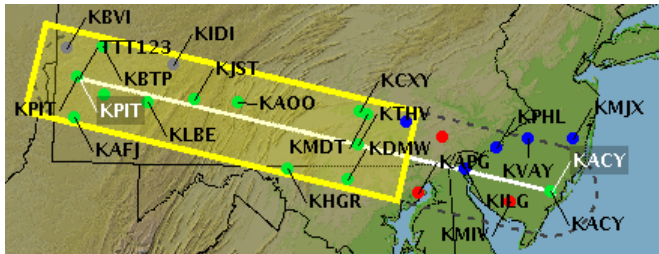
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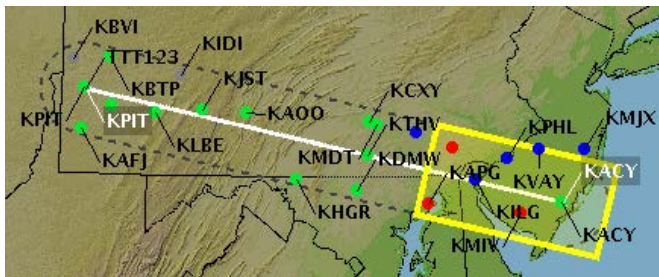
NGB METAR Summaries



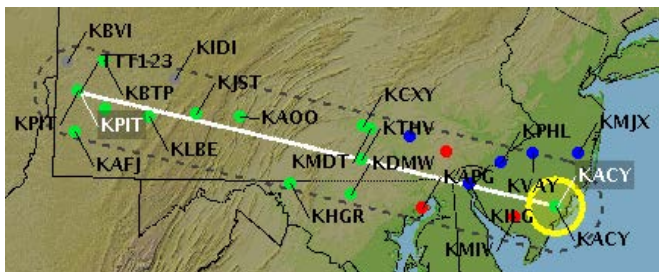
Current conditions at Pittsburgh International, Pittsburgh, PA, **VFR**, Wind at 270 11 knots with gusts to 22 knots, 10 miles visibility, Ceiling is Broken at 3600 feet, Overcast at 5000 feet, Temperature 15°C, Dewpoint 6 °C, Altimeter is 29.91



Mostly **VFR** with some **MVFR** through Lancaster, Lancaster, PA, with ceilings as low as **2000 feet**, Widely Scattered Light Rain



IFR and **MVFR** through South Jersey Rgnl, Mount Holly, NJ, with ceilings as low as **600 feet**, widespread Heavy Rain and Mist, visibility as low as **1 mile**



Current conditions at Atlantic City International, Atlantic City NJ, **VFR**, wind at 190 18 knots with gusts to 28 knots, 10 miles visibility, Few clouds at 1800 feet, Ceiling is Broken at 7000 feet, Temperature 24°C, Dewpoint 20°C, Altimeter is 29.85

Typical TAF Data



TAF AMD KAOO 090024Z 0900/0924 22017G27KT P6SM OVC090
WS020/23040KT
FM090200 27015G25KT 5SM -SHRA BR OVC015
FM090500 30010G15KT P6SM SCT025
FM091400 29015G25KT P6SM BKN035

TAF AMD KJST 090024Z 0900/0924 22016G26KT 6SM -RA BR BKN008 OVC013
FM090400 29015G25KT P6SM BKN015
FM090700 28010KT P6SM SCT025
FM091500 28015G25KT P6SM BKN025

TAF KEKN 082334Z 0900/0924 18005KT 6SM -SHRA SCT025 OVC040 TEMPO
0906/0909 VRB10G22KT 4SM -SHRA SCT015 BKN035
FM090900 32010KT 4SM -SHRA BR SCT008 OVC015
FM091400 28007KT P6SM BKN035
FM091700 28012G18KT P6SM SCT250

NGB TAF Presentation

Route brief for VFR TTT123 C130/C AGC 071820 045 ACY 0600 50nm

Adverse Cond Synopsis Current Wx **Forecasts** NOTAMS Flow Control (0) Misc All

Area Forecast **Terminal Forecast** Winds Aloft

STANDARD NEXTGEN

Automation Summarization - TAFs

Your projected flight time and filed speed have been used to identify the most relevant TAF forecast information for your flight. These times do not include adjusted wind speed.

20:00z VFR FM072000 28013G22KT P6SM SCT023 BKN040
VFR FM080000 29010KT P6SM SCT060 =

20:20z VFR TAF KILG 071724Z 0718/0818 20018G28KT 6SM -SHRA SCT020 OVC050

MVFR TEMPO 0718/0721 3SM +SHRA BR OVC020

+40min → VFR FM072100 24010KT P6SM -SHRA OVC040
VFR FM072300 28010KT P6SM BKN060
VFR FM080200 32008KT P6SM SCT060
VFR FM080300 33005KT P6SM SKC
VFR FM081400 35006KT P6SM SKC =

20:30z MVFR TAF KPHL 071724Z 0718/0824 22015G25KT 5SM -SHRA BR BKN025 OVC040

-30min → IFR TEMPO 0718/0720 2SM +SHRA BR OVC010

+30min → VFR FM072100 24010KT P6SM -SHRA OVC040
VFR FM072300 28010KT P6SM BKN060
VFR FM080200 32008KT P6SM SCT060
VFR FM080300 33005KT P6SM SKC
VFR FM081400 35006KT P6SM SKC =

20:40z VFR TAF KMIV 071724Z 0718/0818 18012G20KT P6SM VCSH SCT020 OVC040

IFR TEMPO 0719/0722 2SM +SHRA BR OVC012

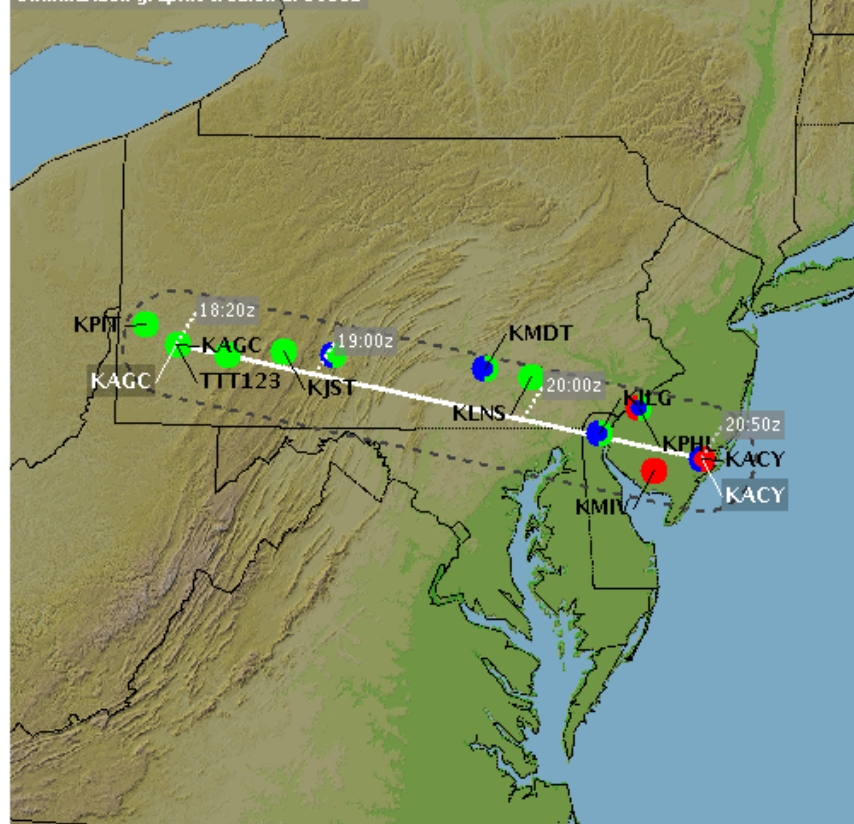
VFR FM072200 24010KT P6SM -SHRA OVC040
VFR FM080000 28010KT P6SM BKN060
VFR FM080200 33005KT P6SM SCT060
VFR FM081400 01006KT P6SM SKC =

20:50z MVFR TAF KACY 071724Z 0718/0818 19015G25KT P6SM VCSH BKN015 OVC030

IFR TEMPO 0720/0723 2SM +SHRA BR OVC012

VFR FM072300 24010KT P6SM -SHRA OVC040
VFR FM080100 29010KT P6SM BKN060
VFR FM080300 33006KT P6SM SCT060
VFR FM081400 02010KT P6SM SKC =

Summarized graphic created at 1815Z



All TAFs

TAF +
METAR/SPECI

Summarized TAFs

Typical AIRMET Outlook Data



WAUS42 KPCI 102045

MIAS WA 102045

AIRMET SIERRA UPDT 3 FOR IFR AND MTN OBSCN VALID UNTIL 110300

.

OTLK VALID 0300-0900Z

AREA 1...IFR NC SC GA NY NJ PA OH WV MD DC DE VA AND CSTL WTRS
BOUNDED BY 40SSW SYR-20ESE CYN-30ESE SBY-40ENE ECG-20E ILM-30NNW
IRQ-40SSE MCN-50S LGC-20N ODF-20NNW HNV-20NNW HNN-20N EWC-ERI-
30SSW BUF-40SSW SYR

CIG BLW 010/VIS BLW 3SM BR. CONDS CONTG THRU 09Z.

WAUS41 KPCI 102045

BOSS WA 102045

AIRMET SIERRA UPDT 3 FOR IFR AND MTN OBSCN VALID UNTIL 110300

Adverse Conditions - AIRMET Outlook

Standard brief for VFR TTT123 C172/A KGAI 102330 95 KHFD 0300 50nm

Adverse Cond | Synopsis | Current Wx | Forecasts | NOTAMs | Flow Control | Misc | All

TFR | DD NOTAM | Conv SIG | SIGMET (0) | **AIRMET** | UUA (0) | CWA | Severe Weather (0)

IFR | MTN Obsc (0) | Icing (0) | Turb Low (0) | Turb High (0) | Wnds>30 Kts (0) | LLWS (0) | Other (0)

STANDARD | **NEXTGEN**

Previous

1 of 2

Next

AIRMET OUTLOOK Valid 1407110300-1407110900Z

Ceiling below 1,000 feet/visibility below 3 statute miles mist. Conditions continuing through 0900Z.

Outlook AIRMET active times: Start:Jul 10, 2045Z End:Not Defined
Estimated passing times: **Earliest:Jul 10, 2331Z** **Latest:Jul 11, 0042Z**
! Outlook AIRMET is active during estimated passing time. [What's this?](#)

WAUS42 KCCI 102045
MIAS WA 102045
AIRMET SIERRA UPDT 3 FOR IFR AND MTN OBSCN VALID UNTIL 110300

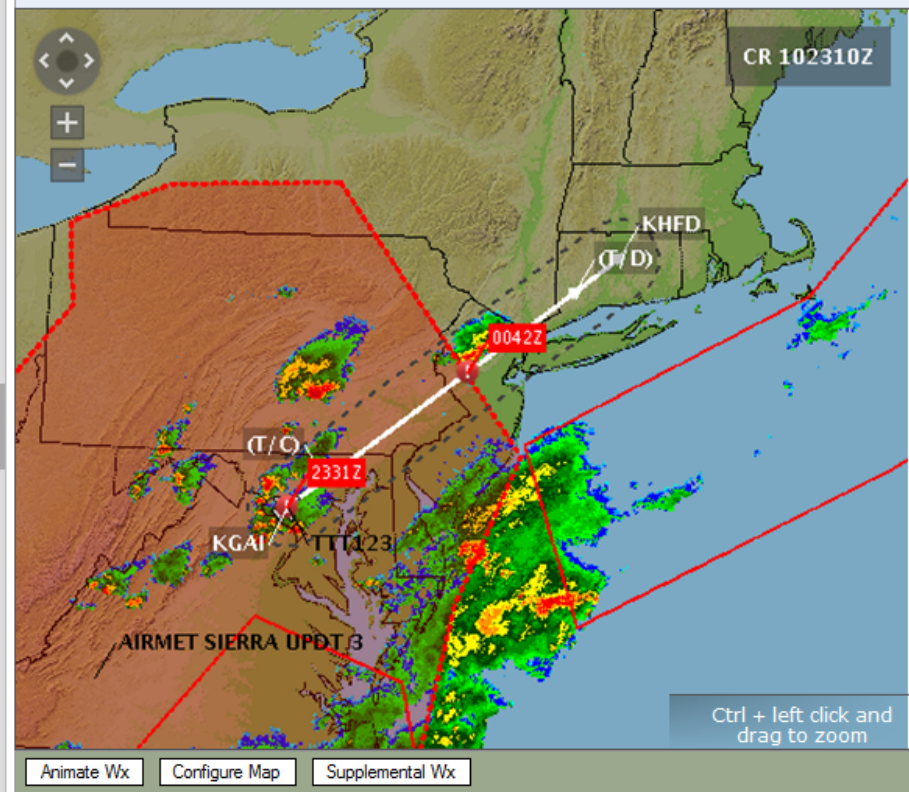
OTLK VALID 0300-0900Z
AREA 1...IFR NC SC GA NY NJ PA OH WV MD DC DE VA AND CSTL WTRS
BOUNDED BY 40SSW SYR-20ESE CYN-30ESE SBY-40ENE ECG-20E ILM-30NNW
IRQ-40SSE MCN-50S LGC-20N ODF-20NNW HMV-20NNW HNN-20N EWC-ERI-
30SSW BUF-40SSW SYR
CIG BLW 010/VIS BLW 3SM BR. CONDS CONTG THRU 09Z.

WAUS41 KCCI 102045
BOSS WA 102045
AIRMET SIERRA UPDT 3 FOR IFR AND MTN OBSCN VALID UNTIL 110300

OTLK VALID 0300-0900Z
AREA 1...IFR NY NJ PA OH WV MD DC DE VA NC SC GA AND CSTL WTRS
BOUNDED BY 40SSW SYR-20ESE CYN-30ESE SBY-40ENE ECG-20E ILM-30NNW
IRQ-40SSE MCN-50S LGC-20N ODF-20NNW HMV-20NNW HNN-20N EWC-ERI-
30SSW BUF-40SSW SYR
CIG BLW 010/VIS BLW 3SM BR. CONDS CONTG THRU 09Z.

AIRMET - IFR on

Terrain & Color Map



Animate Wx

Configure Map

Supplemental Wx

— AIRMET - IFR

- - - AIRMET - IFR Outlook

Wx - 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 dBZ
LGT MOD HVY EXTRM

Ctrl + left click and drag to zoom

Unfiltered Navaid NOTAMs



Departure Destination **En Route** Gen FDC Intl (0) Uncategorized

NAV COM SVC OBST AIRSPACE SUA (0) RWY/TWY/APRON/AD/FDC Other/Unverified Mil

☒ VOR ☒ VOR-DME ☒ VORTAC ☒ NDB
☒ DME ☒ TACAN ☒ ILS ☒ Other

IHRJ 13/03002 KHRJ NAV HQT NDB UNMONITORED

IFAY 13/07027 KFAY NAV VOR GROUND RECEIVER CHECKPOINT **OTS**

IFAY 14/03029 KFAY NAV ILS RWY 4 GP **OUT OF SERVICE** 1403202130-1404032000EST

IMEB 09/06002 KMEB NAV RWY 5 ILS LLZ/GP UNMNT

ILBT 08/09004 KLBT NAV VOR **OTS**

ILBT 13/04005 KLBT NAV ILS RWY 5 LLZ UNMONITORED WEF 1304031734

IAND 12/08392 KCKI NAV NDB UNMONITORED

IAND 14/03339 KCKI NAV NDB **OUT OF SERVICE** 1403252346-1404252000EST

IAND 14/03307 VAN NAV TACAN AZM **OUT OF SERVICE** 1403241255-1404042000EST

IAND 13/12201 KRBW NAV ILS RWY 23 DME **UNUSABLE** BEYOND 18 DEG RIGHT OF COURSE 1312201557-1412201555EST

IBQK 13/08004 KBQK NAV JEFFI NDB/ILS RWY 7 LO DECOMMISSIONED WEF 1308091413

IBQK 14/03040 KBQK NAV ILS RWY 7 LOC/GP **OUT OF SERVICE** 1403281300-1403281800

IGNV 13/04250 K28J NAV PALATKA NDB **OTS** WEF 1304221801

IOCF 08/08019 KOCF NAV TACAN AZM 329-359 **UNUSBL**

IOCF 08/08020 KOCF NAV TACAN AZM 025-078 **UNUSBL** WEF 0808182135

IPIE 13/04159 KZPH NAV RHZ NDB **OTS** WEF 1304191621

IVDF 11/05012 KVDF NAV RWY 23 ILS LLZ/GP UNMNT 0330-0930 DLY WEF 1105230930

IVDF 14/03016 KVDF NAV ILS RWY 23 LOC **OUT OF SERVICE** 1403251050-1404302000EST

IVDF 14/03017 KVDF NAV ILS RWY 23 GP/DME **OUT OF SERVICE** 1403251057-1404302000EST

ITPA 11/02056 KTPA NAV RWY 1R ILS LLZ **UNUSBL** BYD 15 DEG L OF CRS

ITPA 11/02057 KTPA NAV RWY 19L ILS LLZ **UNUSBL** BYD 25 DEG L OF CRS

ITPA 14/02088 KTPA NAV VOT **OUT OF SERVICE** 1402211526-1406252000EST

IPIE 14/03062 KPIE NAV ILS RWY 36R UNMONITORED DAILY 0500-1200 1403090500-1404091200EST

IPIE 14/03063 KPIE NAV ILS RWY 18L UNMONITORED DAILY 0500-1200 1403090500-1404091200EST

ISRQ 12/06088 KSRQ NAV TACAN AZM **OTS** WEF 1206201606

IMIA 12/03075 KPHK NAV TACAN AZM **OTS**

IFLL 13/05027 KFLL NAV ILS RWY 10R LLZ/OM **OTS** WEF 1305021525

ITMB 13/02038 KTMB NAV ILS RWY 9R OM **OTS** WEF 1302251616



☒ VOR ☐ DME ☒ VOR-DME ☒ TACAN ☒ VORTAC ☐ ILS ☒ NDB ☒ Other

NOTAM Condition: ● Out of Service ● Unusable ● Standard

Filtered Navaid NOTAMs



Departure

Destination

En Route

Gen FDC

Intl (0)

Uncategorized

NAV

COM

SVC

OBST

AIRSPACE

SUA (0)

RWY/TWY/APRON/AD/FDC

Other/Unverified

Mil

☒ VOR

☒ VOR-DME

☒ VORTAC

☐ NDB

☒ DME

☐ TACAN

☐ ILS

☒ Other

IFAY 13/07027 KFAY NAV VOR GROUND RECEIVER CHECKPOINT **OTS**

ILBT 08/09004 KLBT NAV VOR **OTS**

ITPA 14/02088 KTPA NAV VOT **OUT OF SERVICE** 1402211526-1406252000EST

IHST 14/08001 KHST NAV HST TEST

IGPS 14/03139 KGPS NAV PSEUDO RANDOM NOISE 32 **OUT OF SERVICE** 1404010800-1404012000 (Not Depicted On Graphics)

IMZG 13/09001 KMZG NAV GROUND BASED TRANSCEIVER **OTS** WEF 1309092343 (Not Depicted On Graphics)

+

-

KRDU

SR1

KLBT

KFAY

KTPA

KTPA

KMIA

KHST

☒ VOR

☐ DME

☒ VOR-DME

☐ TACAN

☒ VORTAC

☐ ILS

☐ NDB

☒ Other

NOTAM Condition:

Out of Service

Unusable

Standard

Safety, Convenience, Productivity

Delta Briefings – what's changed since last briefing

Scheduled Email Briefings – pilot-selectable content

Email Briefing

☐ Plain Text (convert encoded briefing text to plain text)

Send Briefing at:
Date (MM/DD/YYYY): 07/11/2014
Time (HHMM): 2143 EDT

Email briefing to:
☒ joseph.daniele@lmco.com
☐
☐

When Email is sent, Email addresses will be added to Account > User

Select Briefing Contents: All Outlook Clear

☒ **Adverse Conditions**
☐ Delta
☒ Temporary Flight Restrictions
☒ Dep/Dest NOTAMS
☒ Convective SIGMET
☒ SIGMET
☒ AIRMET
☒ IFR
☒ Mountain Obscuration
☒ Icing
☒ Turbulence Low Altitude
☒ Turbulence High Altitude
☒ Winds over 30 Knots
☒ Low Level Wind Shear
☒ Other
☒ Urgent Pilot Report
☒ Center Weather Advisory
☒ Severe Weather

☒ **Forecasts**
☒ Area Forecast
☒ Terminal Forecast
☒ Winds Aloft

☒ **NOTAMS**
☒ Departure
☒ Destination
☒ Alternate 1
☒ Alternate 2
☒ En Route
☒ Navigation
☒ Communication
☒ Service
☒ Obstruction
☒ Airspace
☒ Special Use Airspace
☒ Runway/Taxiway/Apron/
Aerodrome/FDC
☒ Other/Unverified
☒ Military
☒ General FDC
☒ International
☒ Uncategorized

☒ **Flow Control**
☒ Air Traffic Control System
Command Center

☒ **Miscellaneous**
☒ NHC Bulletins
☒ Convective Outlook
☒ Volcanic Ash Advisory

Synopsis
☒ Synopsis

Current Weather
☒ METAR
☒ Historical METARs
☒ Pilot Reports

Schedule Email Cancel

Standard brief for VFR TTT123 C172/A FDK 100600 075 ELK 0130 50nm

Adverse Cond Synopsis Current Wx Forecasts NOTAMS Flow Control Misc All

Delta TFR DD NOTAM (0) Conv SIG SIGMET (0) AIRMET UUA (0) CWA (0) Severe Weather (0)

Adverse Conditions since this flight plan was briefed on Jun 10, 2014 at 0541Z.

CWA 103 Valid Until 110000

Area of thunderstorms with heavy precipitation moving from 270° at 10 knots. Tops at flight level 320. Thunderstorms will impact N90 west gate departures and APPRCH Teterboro, Teterboro, NJ (TEB)-Newark Liberty International, Newark, NJ (EWR) 2300Z to 0000Z. Small hail and snow pellet

Center Advisory active times: Start: Jul 10, 2225Z End: Jul 11, 0000Z
Estimated passing times: Earliest: Jul 11, 0022Z Latest: Jul 11, 0107Z

Center Advisory is active 22 minutes prior to estimated passing time. [What's this?](#)

ZNY1 CWA 102225
ZNY CWA 103 VALID UNTIL 110000
FROM 15NE SAX-30E SAX-25SW JFK-10S ETX-15NE SAX
AREA OF TS WITH HVY PCPN MOV FROM 27010KT. TOPS FL320. TS WL IMPACT
N90 W GATE DEPARTURES AND APPRCH TEB-EWR 2300Z-0000Z.

EasyActivate™ / EasyClose™ - touch a link in an email

The following link allows you to activate N33142 from BCB to ROA scheduled at 03:00 UTC on 07/12/2014. Select the link when you are ready to activate your flight plan. You may activate your flight plan up to two hours after the ETD.

[EasyActivate](#)

WARNINGS:

1. A confirmation message should be displayed on your mobile device when you select the EasyActivate link. If you do not receive the confirmation message, your flight plan was not activated. This could happen if your mobile device does not have internet access. Please contact Flight Services in this case to activate your flight plan.
2. Do not use this link if you are not the pilot for the identified flight.

Thank you for using the EasyActivate™ service!
Lockheed Martin Flight Services (800-WX-BRIEF)

Your account history is available for Flight Plan, NavLog, and Briefing events in the past 15 days. It includes any events your service provider performed on your account's behalf.

Details	Event Date & Time	Event	Aircraft ID	Source	Departure	Destination
View	Jun 10, 0528Z	NavLog	TTT123	Website	FDK	ELK
View	Jun 10, 0517Z	File Flight Plan	TTT123	Website	FDK	ELK
View	Jun 10, 0515Z	Standard Briefing	TTT123	Website	FDK	ELK
View	Jun 7, 2244Z	Standard Briefing	TTT123	Website	KPIT	ACY

Online
Pilot
History

Flight Service Data Link

- Bi-directional electronic communications with cockpit
- Provides infrastructure for a wide range of applications
- Pathway to handle routine flight service communications with automation



Spidertracks



Honeywell



DeLorme

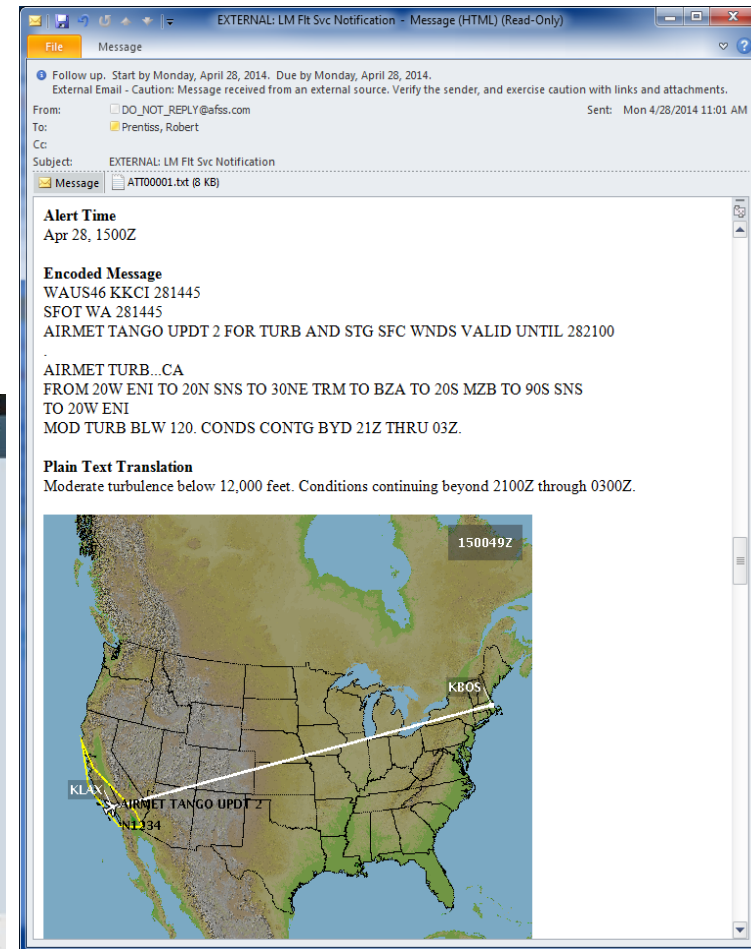
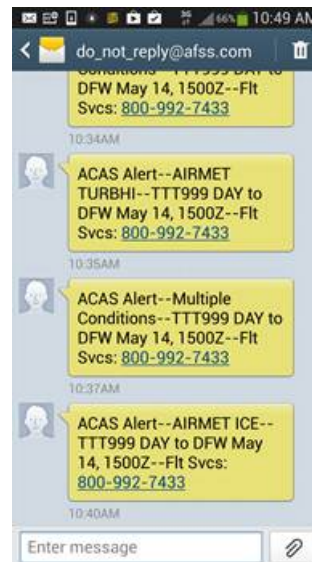


Garmin

Adverse Condition Alerting Service (ACAS)

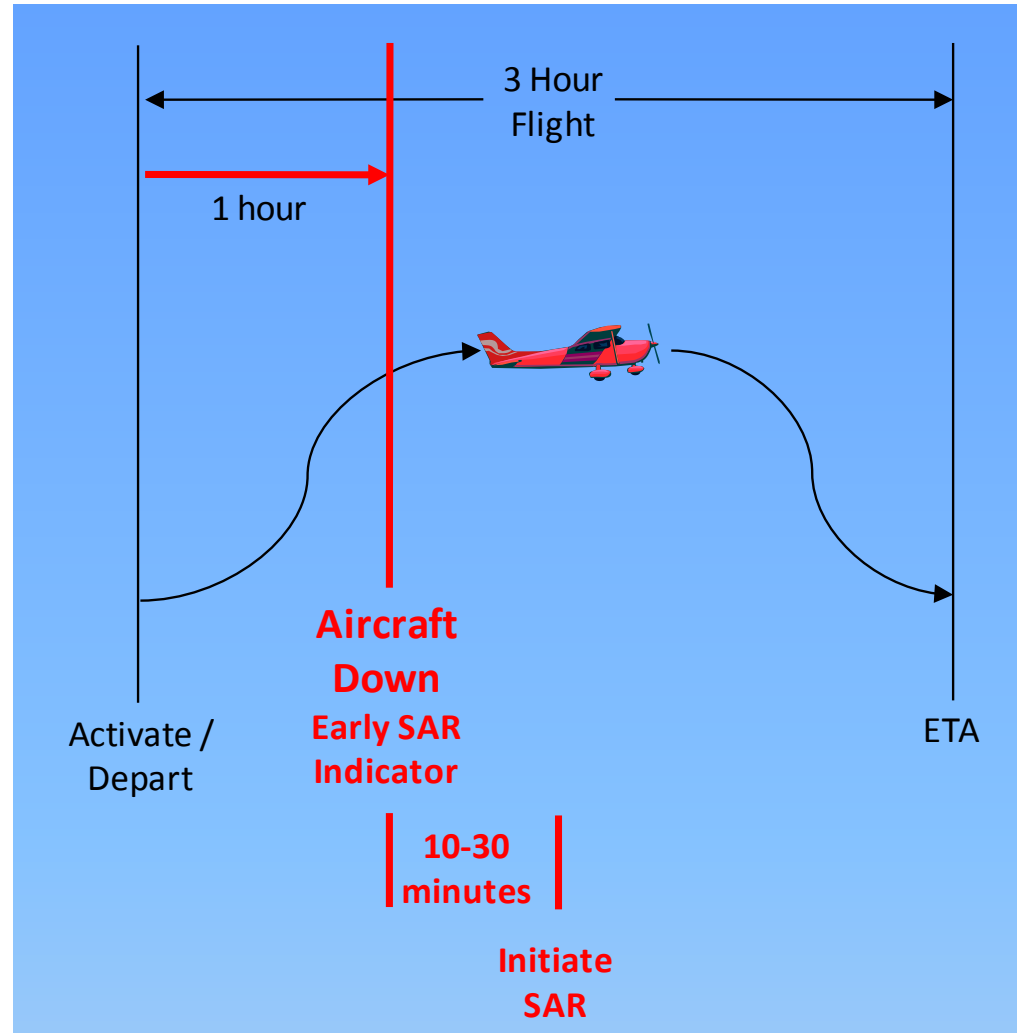
- Free service, operational since October 2012
- Monitors flight plans after briefing/file, sends alerts to pilots for new or modified adverse conditions
 - TFRs, Closed/Unsafe Airports/Runways, SIGMETs Convective SIGMETs, AIRMETs, **CWAs**, **Urgent PIREPs**, Severe Wx Warnings & Watches
- Preflight delivery via Email, text msg,
- Inflight delivery via SATCOM devices: spidertracks, Honeywell Sky Connect, DeLorme, Garmin

43% of surveyed pilots said there were adverse conditions they would not have known about without the ACAS



Surveillance-Enhance Search & Rescue (SE-SAR)

- Satellite-based position reporting
- Alerts for non-movement, non-reporting, emergency (to specialists and to whomever the pilot wishes)
- Much faster initiation of actual search
- Position history available
- Spidertracks deployed Spring 2013
- SkyConnect deployed Fall 2013
- Garmin deployed Spring 2014
- DeLorme deployed Summer 2014
- Globalstar targeting Fall 2014



Inflight Electronic PIREP Submission

Three Submission Models

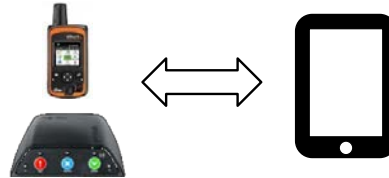
Satellite Communications Devices with Integrated Display



**Honeywell
Sky Connect**

Honeywell SkyConnect and Aerovie available by Oshkosh AirVenture

Satellite Communications Devices as Conduit

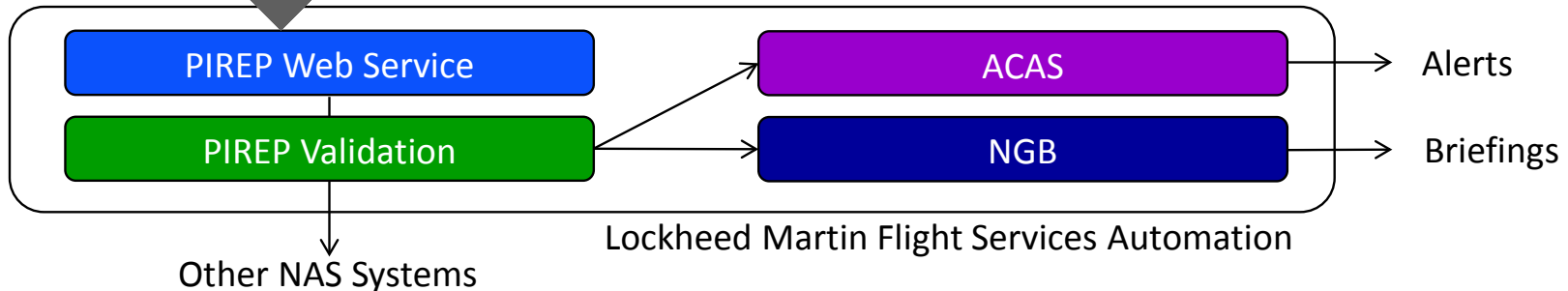


Additional vendors to follow shortly

Mobile App, Internet Connectivity, Store & Forward When Necessary



Aerovie



Lockheed Martin Flight Services Automation

Aerovie PIREP Submission UI

In Apple Store Now

Cancel ADD REPORT

WHEN: **NOW** LOCATION: CALLSIGN N1303H
NOW 30 MINS AGO GPS MANUAL
Minutes ago the report occurred

ALTITUDE FL000 TYPE SR22

REMARKS SHARING
Share on social network.

ADD PHOTO

RIDE: Select ride comfort PRECIPITATION: Select Weather ICING: Select Icing Conditions

TURB. BASES TURB. TOPS

CLOUD BASES CLOUD TOPS

ICING BASES ICING TOPS

Occasional Continuous

Clouds Clear Few Sct Bkn Ovc

Clear Rime Mixed

SUBMIT REPORT

Common UI Themes:

- Preconfigured aircraft type and tail number / call sign
- Auto-fill (with optional assist) for time, location
- Pilot is primarily concerned with characterizing conditions

Minimize heads-down time!



7/23 Test Flight - Cirrus
Perspective / G1000 MFD via
XM Sat feed.

This Fall - Departure Advisor

Departure Time Options	Each row indicates weather conditions forecasted to be present along the route of flight based on the departure time, airspeed, and winds. This is not a substitute for a full briefing.										
	KPIT	KAGC	KUST	KMDT		KMIV	KLNS	KILG		KPHL	KACY
0900Z	V	V	M	M		I	L	I		M	M
1000Z	V	V	M	M		I	L	I		I	M
1100Z	V	V	M	M		I	L	I		I	M
1200Z	V	V	V	M		M	L	I		I	M
1300Z	V	V	V	M		M	L	I		I	I
1400Z	V	V	V	V		M	M	I		I	I
1500Z	V	V	V	V		M	M	M		I	I
1600Z	V	V	V	V		V	M	M		M	I
1700Z	V	V	V	V		V	V	M		M	M
1800Z	V	V	V	V		V	V	V		V	M
1900Z	V	V	V	V		V	V	V		V	V

V M I L VFR, MVFR, IFR & LIFR TAF conditions

Adverse Wx (AIRMETs, SIGMETs, Convective SIGMETs)

UAS Traffic Management



- Small UAS, Low Altitude / Class G/E focus
- Fall 2014 – Fly-Away Reporting Service
 - Alert GA
 - Escalate to ATC when appropriate
- Prototyped and Quickly Deployable
 - File
 - Brief and Alert GA
 - Conformance Monitoring
 - Exception Management (ATC Escalation)
 - Data recording and analysis for Public Accountability

Filing UAS Flight Plan



Web portal, telephone
(specialist), or 3rd party app
(web services)

Conventions defined to indicate
UAS and to construct circular,
polygon, and route-oriented
operating areas with maximum
altitude – using standard Flight
Plan fields.

Flight plan details can be
hidden from operators
via web services
integrated with GCS

LOCKHEED MARTIN
FLIGHT SERVICES

Home Weather **Flight Planning & Briefing** Airports Tools Account Links Help Logout

Welcome byron.j.phillips@lmco.com Thu May 22 13:50:50 GMT-0400 (Eastern Standard Time) | 17:50:50 Z

Domestic Flight Plan Notice: Per FAA guidance, all IFR flights that exit US airspace must be filed as ICAO flight plans.

Switch to ICAO Format

☒ Send me Alerts for this flight plan Set up Notifications in Account Preferences page

Favorite Flight Plans Recent Flight Plans Device Type:

* Flight Rule: VFR

* Aircraft ID: UAS4 * Aircraft Type: UAS

Number of Aircraft: 1

* Aircraft Equipment:

* Departure Point: 3530N07834W Area Brief

* Proposed Departure Date: 05/22/2014 * Proposed Departure Time (HHMM): 1500 EDT

* Airspeed: 0060 * Altitude (100s of feet): 125

Heavy Wake Turbulence:

Route of Flight:
(Leave blank for direct) 3533N07834W 3536N07831W 3532N07830W Select FAA Preferred Route

* Destination Point: 3535N07826W Area Brief

* Estimated Time Enroute (HHMM): 0200

Remarks:

* Fuel On Board (HHMM):

Alternate Airport: Area Brief Alternate Airport 2: Area Brief

* Number on Board: * Aircraft Color:

* Pilot Contact Information: PHILLIPS

Route Corridor Width / Area Radius: 50

Route Brief Amend Cancel Activate NavLog Save Fav New FP

UAS Operating Area Intersection in NextGen Briefing

UAS Operating Area volume is created dynamically when flight plan is entered; subsequently included in briefings for other flights and available for ACAS alerting (with altitude filtering)

Adverse Cond Synopsis (0) Current Wx Forecasts NOTAMs Flow Control (0) Misc All

TFR DD NOTAM Conv SIG (0) SIGMET (0) AIRMET (0) UUA (0) CWA (0) Severe Weather (0) **UOA**

STANDARD **NEXTGEN** Previous 1 of 1 Next

UAS Operating Area UAS1

Maximum altitude: 12500 **Summary info**

UAS Operating Area valid times: Start:1600Z End:1800Z [What's this?](#)

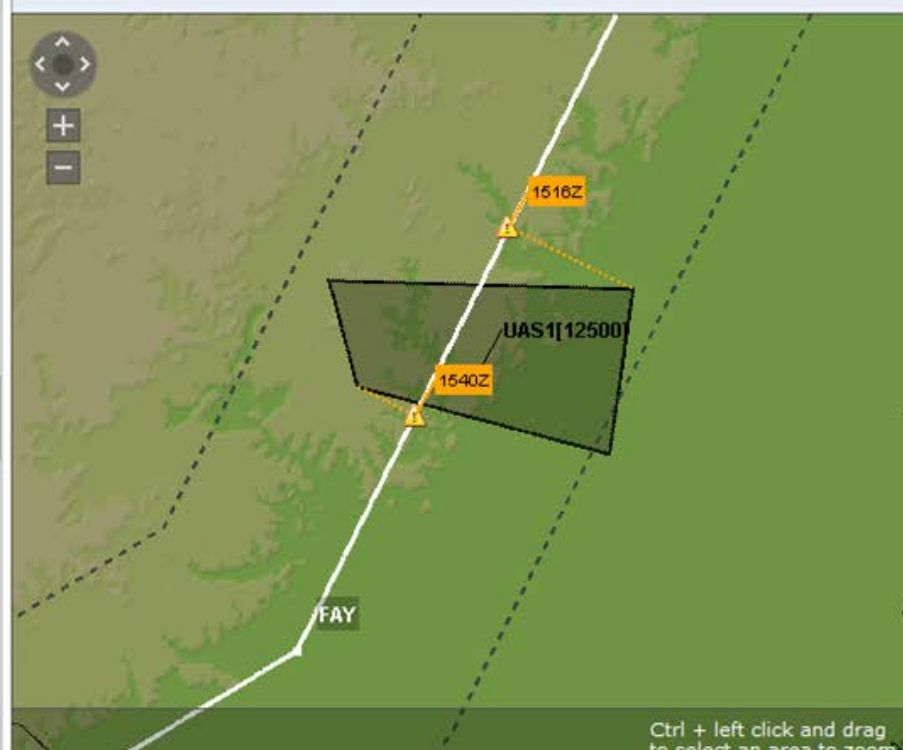
Estimated passing times: **Earliest:1516Z** **Latest:1540Z**

UAS Operating Area is active 19 minutes after estimated passing time.

UAS Operating Area UAS1 planned to be active from May 23 1600Z until May 23 1800Z. Operating area outline: 3553N07847W, 3553N07847W, 3537N07842W, 3528N07758W, 3551N07754W, 3553N07847W. Maximum altitude: 12500.

Full text of UAS operating area information

Orange color-coding indicates UAS will be active within an hour of when the flight passes the area; could be red (active when flight passes) or green (not active within an hour)

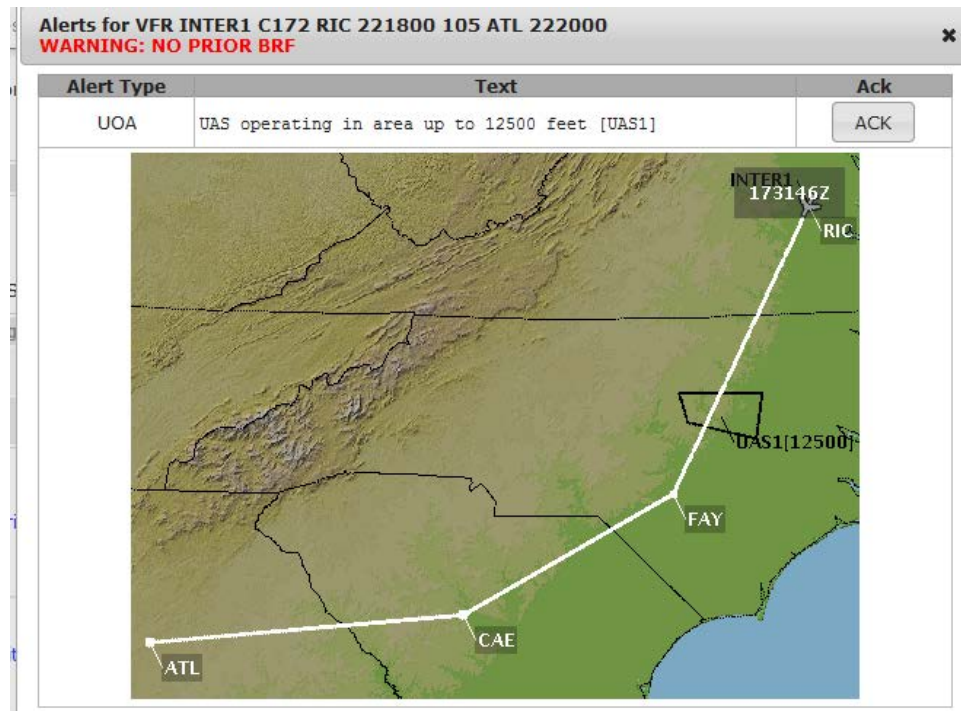
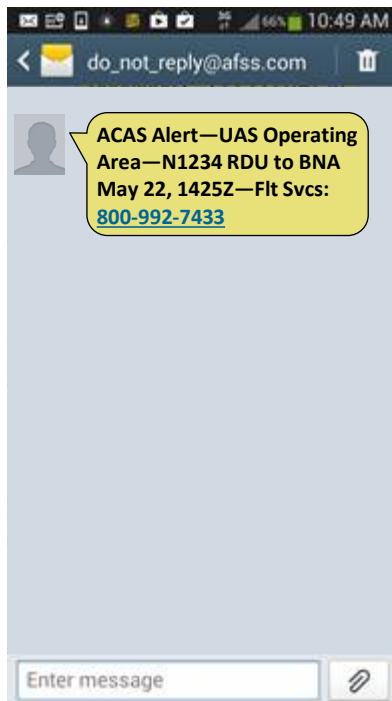


Ctrl + left click and drag to select an area to zoom

Adverse Condition Alerting Service (ACAS) UAS Alert

If UAS Operating Area is created after another flight receives its briefing, ACAS informs the pilot via email, text, or SatCom.

**Text or SatCom
message conveys
type of alert**



**Full alert detail available via email, on pilot
web portal, or from a Flight Service Specialist**

Out-of-Conformance Alert

(UOA Violation Alert?)

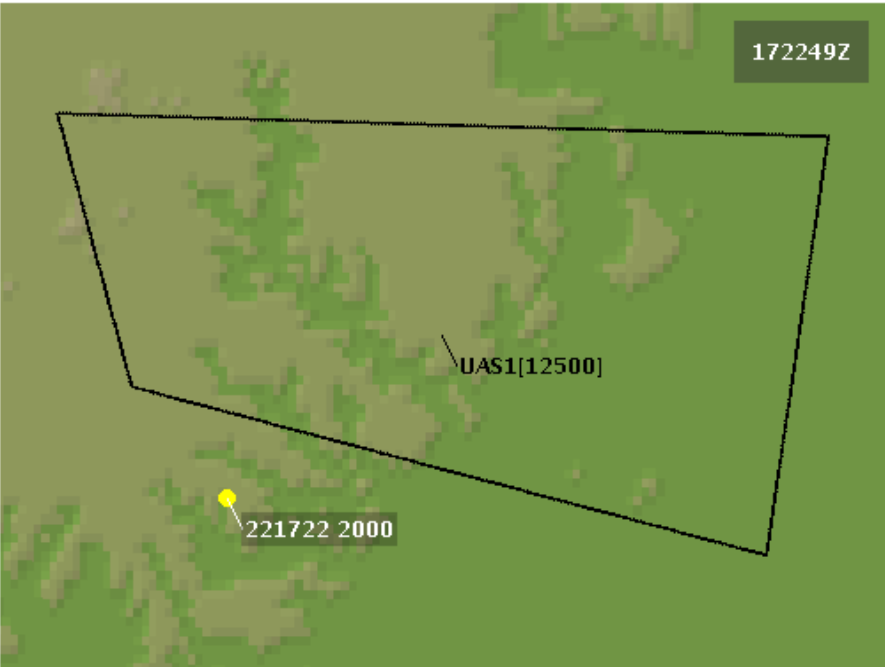


Continual ingest and analysis of UAS position reports (ADS-B, SE-SAR); alert generated if UAS exits the filed Area of Operation (lateral or vertical); provides basis for ATC escalation

Alerts are always available to specialists and can be sent to UAS operator or any third party

Alerts for VFR UAS1 UAS RDU 221900 125 RDU 222100

WARNING: NO PRIOR BRF

Alert Type	Text	Ack
UOA	UAS Out-of-Conformance Alert Lateral	<input type="button" value="ACK"/>
		

Public Accountability



LOCKHEED MARTIN
FLIGHT SERVICES

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Weather

Flight Planning & Briefing

Airports

Tools

Account

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Help

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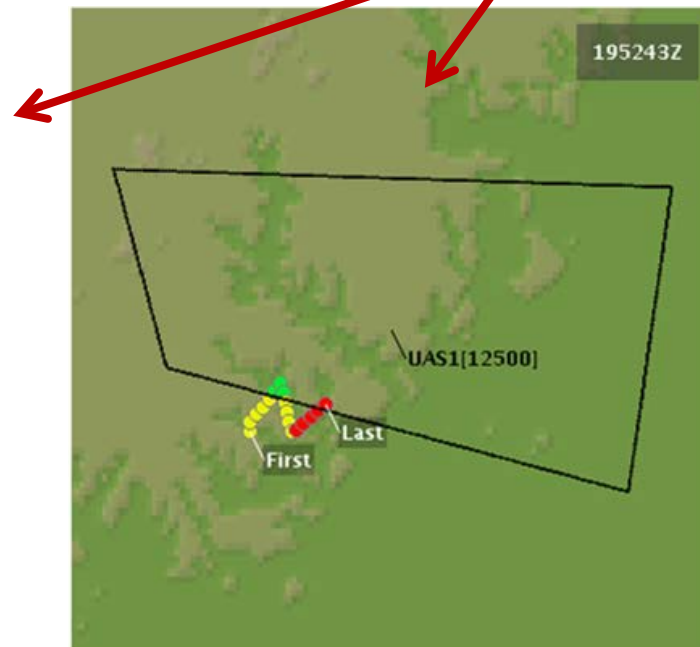
Welcome byron.j.phillips@lmco.comThu Jun 12 20:16:29 GMT-0400 (Eastern Standard Time) | 0:16:29 Z

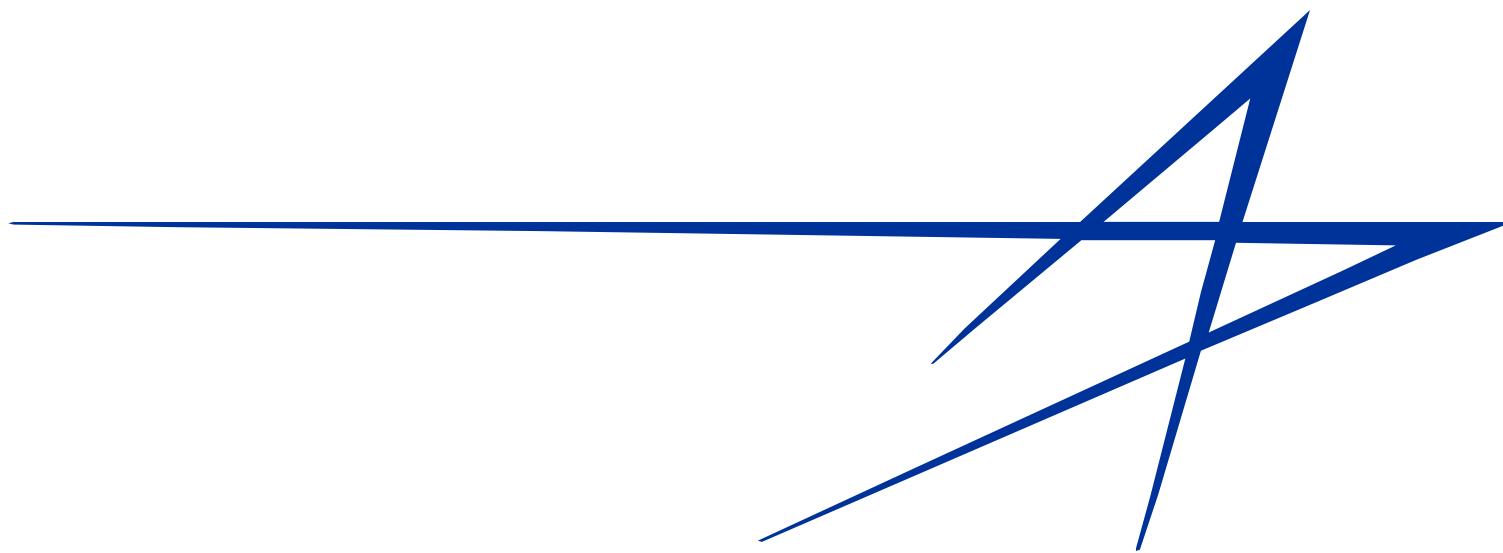
Click the Reload button in your web browser to refresh flight plan status and weather/NOTAM data. Last updated at 0:16Z.

Active Flights

Route Alerts	Flight Rule	Aircraft ID	DEP	DEST	ETA			
Route	VFR	UAS2	RDU	RDU	JUN 12 2215 (EDT) JUN 13 0215 (UTC)	Route Brief	Close	UAS Acc

Time	Lat/Lng	Alt	Spd	Conf Status
2014-06-13 19:48:42Z	35.54/-78.57	1000	060	OOC-Lateral
2014-06-13 19:48:57Z	35.55/-78.57	2000	060	OOC-Lateral
2014-06-13 19:49:13Z	35.56/-78.56	3000	060	OOC-Lateral
2014-06-13 19:49:28Z	35.57/-78.55	4000	060	OOC-Lateral
2014-06-13 19:49:43Z	35.58/-78.54	5000	060	OOC-Lateral
2014-06-13 19:49:58Z	35.59/-78.53	6000	060	
2014-06-13 19:50:13Z	35.60/-78.52	7000	060	
2014-06-13 19:50:28Z	35.59/-78.51	8000	060	
2014-06-13 19:50:43Z	35.58/-78.51	9000	060	OOC-Lateral
2014-06-13 19:50:58Z	35.56/-78.51	10000	060	OOC-Lateral
2014-06-13 19:51:13Z	35.55/-78.50	11000	060	OOC-Lateral
2014-06-13 19:51:28Z	35.54/-78.50	12000	060	OOC-Lateral
2014-06-13 19:51:43Z	35.54/-78.49	13000	060	OOC-Lateral&Vertical
2014-06-13 19:51:58Z	35.55/-78.48	13500	060	OOC-Lateral&Vertical
2014-06-13 19:52:13Z	35.56/-78.47	13500	060	OOC-Lateral&Vertical
2014-06-13 19:52:28Z	35.57/-78.46	13500	060	OOC-Lateral&Vertical
2014-06-13 19:52:43Z	35.57/-78.45	13500	060	OOC-Vertical







Department of the Interior



Initiatives and Issues

Advance Notice of Proposed Rulemaking

Aviation Safety Study

NTSB Recommendations

Other Issues

Brad Laubach

National Aviation Manager

Steve Rauch

National Aviation Safety Manager



ANPRM



Advance Notice Seeks Information

Advance Notice Does Not Propose or Establish Policy

Individual or Group Comments are Welcome

POC - Ralph Colleli, Regulations and Standards Branch, 703-787-1831, email address: regs@bsee.gov.

57006

Proposed Rules

Federal Register
Vol. 79, No. 185
Wednesday, September 24, 2014

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

FEDERAL HOUSING FINANCE AGENCY

12 CFR Parts 1282
RIN 2890-AA05

2015-2017 Enterprise Housing Goals

Correction

In proposed rule document 2014-21118 appearing on page 54402 through 54516 in the issue of Thursday, September 11, 2014, make the following corrections:

1. On page 54494, in table 2, in column number 2 "Goals", the first entry corresponding with year "2013" should read "70,000".
2. On page 54494, in table 3, in column number 2 "Goals", the first entry corresponding with year "2013" should read "70,000".

FR Doc. C1-2014-21118 Filed 9-23-14; 8:45 am;
BUREAU CODE 100-0-0

DEPARTMENT OF THE INTERIOR

Bureau of Safety and Environmental Enforcement

30 CFR Part 250

[Docket ID: BSEE-2014-0001]

RIN 1014-AA22

Oil and Gas and Sulphur Operations in the Outer Continental Shelf (OCS); Helideck and Aviation Fuel Safety for Fixed Offshore Facilities

AGENCY: Bureau of Safety and Environmental Enforcement (BSEE), Interior.

ACTION: Advance notice of proposed rulemaking.

SUMMARY: The BSEE is seeking comments on improving safety for operations related to helicopters and helidecks on fixed offshore facilities. Specifically, BSEE invites comments on whether to incorporate in its regulations certain industry and/or international

standards for design, construction, and maintenance of offshore helidecks, as well as standards for aviation fuel quality, storage and handling. The BSEE also invites comments on whether it should incorporate existing standards, with modifications, and/or develop and propose new government regulatory standards for safety of helidecks and aviation fuel systems. As an alternative to incorporating or developing such standards, BSEE invites comments on whether to require submission of aviation-related safety plans for helidecks and offshore aviation fuel systems on Outer Continental Shelf (OCS) facilities. The BSEE also seeks information on past accidents or other incidents involving helidecks, helicopters, or aviation fuel on or near fixed OCS facilities.

DATES: Submit comments by November 24, 2014. The BSEE may not fully consider comments received after this date.

ADDRESSES: You may submit comments on this notice by any of the following methods. Please use the Regulation Identifier Number (RIN) 1014-AA22 as an identifier in your comments. In addition, please refer to "Oil and Gas and Sulphur Operations in the Outer Continental Shelf—Helideck and Aviation Fuel Safety for Fixed Offshore Facilities, 1014-AA22," in your comments and include your name and return address. The BSEE may post all submitted comments, in their entirety, at www.regulations.gov. See Public Availability of Comments.

—Federal eRulemaking Portal: <http://www.regulations.gov>. In the entry titled "Enter Keyword or ID," enter BSEE-2014-0001, then click search. Follow the instructions to submit public comments and view supporting and related materials available for this rulemaking.

—Mail or hand-carry comments to the Department of the Interior (DOI), Bureau of Safety and Environmental Enforcement, Attention: Regulations and Standards Branch, Office of Offshore Regulatory Programs, 381 Eldon Street, HES-12, Herndon, Virginia 20170-4817.

FOR FURTHER INFORMATION CONTACT: Ralph Colleli, Regulations and Standards Branch, 703-787-1831, email address: regs@bsee.gov.

SUPPLEMENTARY INFORMATION:

Executive Summary

In accordance with the Outer Continental Shelf Lands Act (OCSLA), BSEE and the U.S. Coast Guard (USCG) share regulatory authority over offshore facilities engaged in oil and gas operations—including exploration, development, and production activities—on the OCS. Among other purposes, BSEE's regulations for offshore operations seek to prevent injury or loss of life and damage to property, natural resources, and the environment. As one means of achieving these goals, BSEE incorporates by reference in its regulations many industry standards applicable to offshore oil and gas operations.

Although the Federal Aviation Administration (FAA) has broad authority regarding helicopter-related safety issues and onshore and offshore flight safety, BSEE has the lead responsibility for safety of helidecks and aviation fuel storage and handling on fixed offshore facilities, while the USCG has the lead responsibility for helidecks and aviation fuel handling on floating offshore facilities. Currently, BSEE's regulations incorporate and require compliance with certain industry standards that address some safety issues related to helidecks and the presence of helicopters and aviation fuel on fixed offshore facilities. However, BSEE's existing regulations do not comprehensively address helideck or aviation fuel safety issues.

Recent reports by the U.S. Centers for Disease Control and Prevention (CDC) and the Helicopter Safety Advisory Conference confirm that helicopter accidents and helicopter-related incidents on or near offshore facilities are a significant concern. Similarly, incident reports submitted by offshore operators to the Minerals Management Service (MMS)—BSEE's predecessor agency—or to BSEE over the past 15 years indicate that incidents involving helicopter operations on or near offshore facilities have resulted in several fatalities, significant injuries and substantial property damage.

The BSEE has reviewed existing industry and international standards for helideck and aviation fuel safety and believes that certain standards, if incorporated into BSEE's regulations for fixed offshore facilities, could improve safety and reduce risks of injury and



Aviation Safety Study



Major areas of study include:

- 1. Develop Inspection Procedures, Guidance, and Training Module*
- 2. System integrity assessment of the aviation fueling network*
- 3. Training and Safety Requirements for BSEE Personnel*
- 4. Available Helicopter Systems and Equipment for Safety*
- 5. Effects of Combustible Gas on Helicopter Operations*
- 6. Comprehensive Review of Offshore Aviation Safety (Domestic and International)*



NTSB Recommendation



A-14-67 - In collaboration with the US Coast Guard, identify and develop comprehensive systems and procedures to mitigate the risk of ingestion of raw gas discharges, such as methane, by helicopters operating in the vicinity of offshore oil platforms

A-14-68 - After appropriate mitigations are developed ... require fixed offshore oil platform operators to implement these systems and procedures.



National Transportation Safety Board
Washington, DC 20594

Safety Recommendation

Date: August 26, 2014

In reply refer to: A-14-67 and -68

The Honorable Sally Jewell
Secretary
US Department of the Interior
1849 C Street, NW
Washington, DC 20240

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. The NTSB urges the US Department of the Interior, Bureau of Safety and Environmental Enforcement (BSEE) to take action on the safety recommendations issued in this letter.

These recommendations address occurrences of total or partial loss of engine power on turbine-powered helicopters operating to and from offshore oil platforms in the Gulf of Mexico. The loss of engine power was likely due to inadvertent ingestion of methane gas that was being vented in the vicinity.¹ As a result of the NTSB's investigation of these events, we have issued five safety recommendations, two of which are addressed to the US Department of the Interior. Information supporting these recommendations is discussed below.

On March 24, 2011, about 1655 central daylight time, a Bell 206-L3 helicopter, N32041, operated by PHL, Inc.,² experienced a partial loss of power to its Allison 250-C30 turboshaft engine shortly after takeoff from an offshore oil production platform (MP61A) in the Gulf of Mexico. The commercial pilot initiated an autorotation and activated the helicopter's float

¹ For safety reasons, offshore oil platforms are equipped with booms to perform a controlled release of unburned gases, predominantly methane, into the atmosphere (known as venting) or to perform a controlled burn of gas that is a byproduct of routine oil and gas production (known as flaring). Although this letter discusses accidents involving vented methane gas, discharges of other raw gases can also lead to turbine engine failure.

² The operator changed its name from Petroleum Bell Helicopters, Inc. to PHL, Inc. in 2006.

<http://www.nts.gov/recsletters/DisplayLetters.aspx?FolderYR=2014>



Other Issues



UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT

NTL No. 2011 N-07

Effective Date: 10/12/2011
Expiration Date: 10/12/2016

NATIONAL NOTICE TO LESSEES AND OPERATORS OF FEDERAL OIL AND GAS
LEASES OUTER CONTINENTAL SHELF

Temporary Helideck Closures

This Notice to Lessees and Operators (NTL) offers guidance on the recommended safety practice of visual signaling and notification of a temporary helideck closure. This NTL replaces and supersedes NTL No. 2009-P08.

Authority

As required by 30 CFR 250.107(b), you must immediately control, remove, or otherwise correct any hazardous oil and gas accumulation or other health, safety or fire hazard.

In addition, as stated in 30 CFR 250.132, when the Bureau of Safety and Environmental Enforcement (BSEE) "... conducts an inspection, you must provide: (1) Access to all platforms ...; and (2) Helicopter landing sites ... for any helicopters we use to regulate offshore operations"

Background

Under certain conditions, an installation may prohibit the use of its helideck. There have been incidents in the past involving helicopters landing on temporarily closed helidecks on OCS platforms.

Policy

In the interest of safety using an X-shaped visual indicator as shown in Figures 1 and 2 below, will show that the helideck is temporarily closed and that helicopter landings are not permitted.

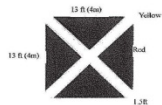


Figure 1



Figure 2
(X-shaped marker shown with rope ties)

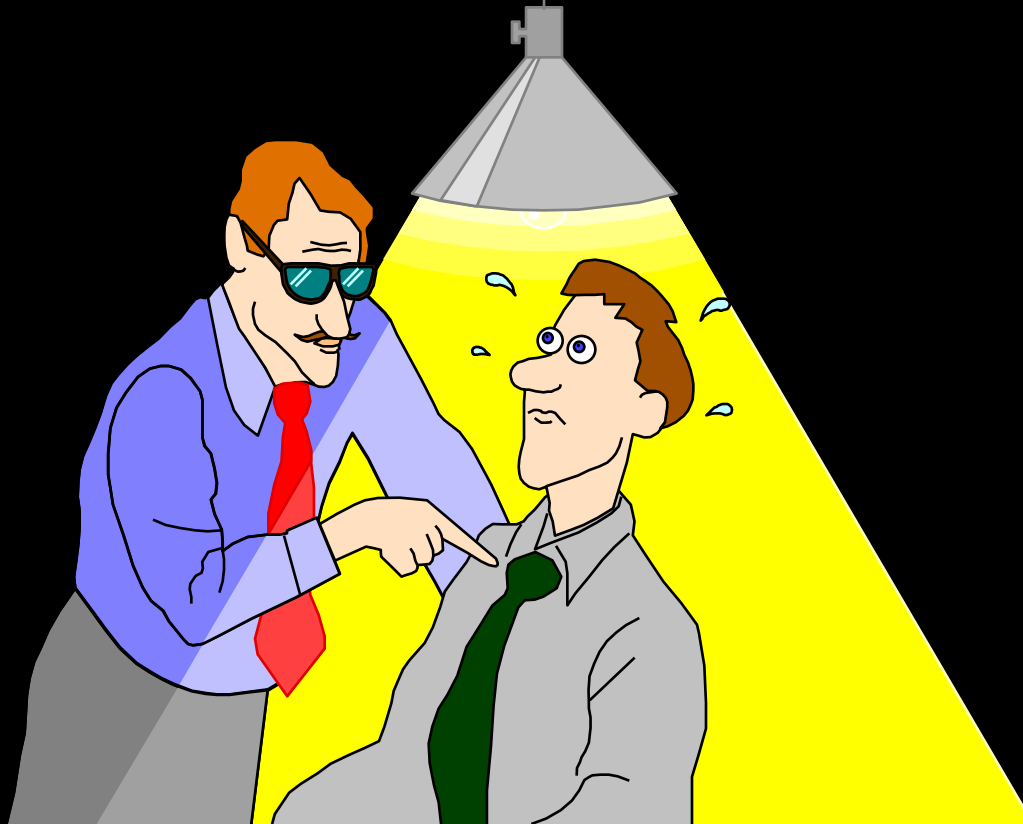
Notice to Lessees (NTL 2011 N-07) Temporary Helideck Closure

Aviation Hazard Reporting

Bird Strikes

Inadvertent Door Opening and Loose Equipment

*What are your
QUESTIONS?*



Surveillance and Broadcast Services

SBS Program Update

Presented to: HSAC

By: Glenn Meier, Project Lead, Central US

Date: October 16, 2014



Attachment #11

Federal Aviation
Administration



Agenda

- **Recent FAA GOM Changes**
- **Significant Projects**
 - A/G Comm at Marathon EW 873
 - ADS-B at Shell MC 809
 - A/G Comm, ADS-B and AWOS on Anadarko Lucius
- **Follow-up for April ATC A/G Comm Issue**
- **Avionics Status**



FAA GOM Changes

Weather Station

- SS 354 (SQE) Installed
- MU A31A (MIU) Removed

Platform Operations

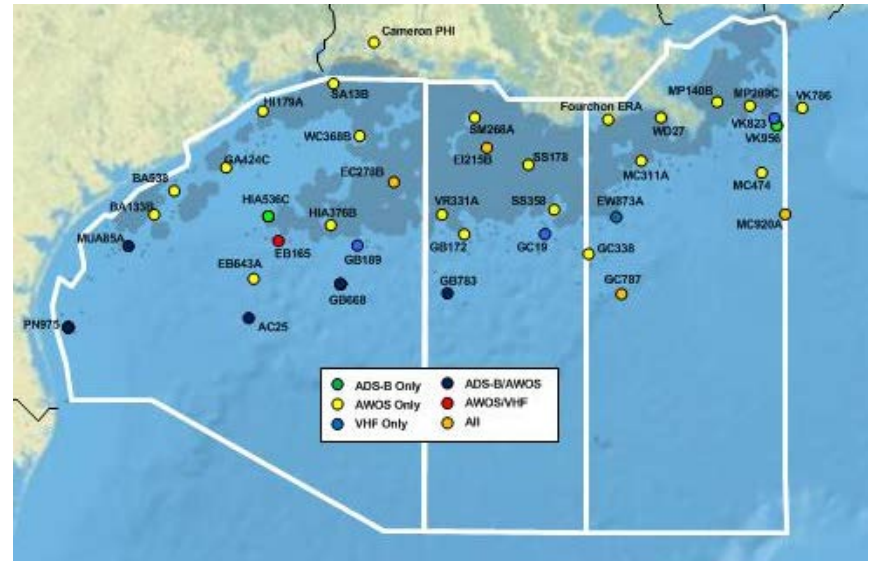
- EB 165 – SandRidge -> Fieldwood
- WD 27 - EPL -> Energy XXI
- SA13B – Black Elk-> Renaissance

Partnership

- Bennu joined in September
- Renaissance in negotiation

ADS-B surveillance

- MU 85A returns to service - microwave link lost in 2013 – replaced by satellite
- Ursa (MC 809) selected for ADS-B – developing schedule



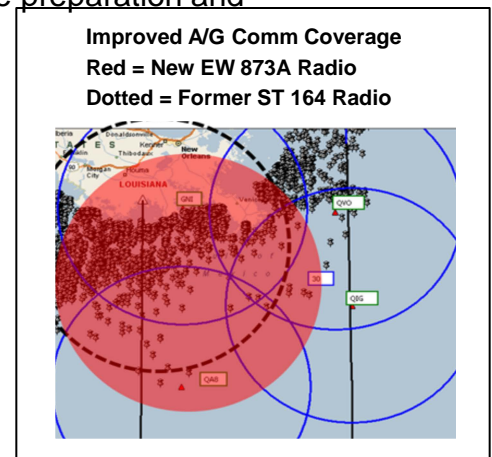
Install A/G Comm on Ewing Banks 873A

Objective: Support Voice Services (VS) PO and CSA Engineering Services (ES) to restore TZL A/G Comm

Background: TZL A/G Comm services were lost when Stone Energy's South Timbalier 164 platform was shut down in October 2013. Marathon Ewing Banks (EW) 873A (18J) selected as preferred replacement site in January 2013. SBS coordinated with Marathon and FAA VS/ES to negotiate the MOA.

Approach: FAA to fund equipment, installation and maintenance. VS/ES provides the radios, building and platform based installation. Marathon will support the engineering, site preparation and installation.

FAA install began on October 6



- Complete
- In Progress
- Not Yet Started

Memorandum of Agreement Signed
September 2013

Stone Energy ST-164 TZL Shut Down
November 2013

Engineering Design and Building
April 2014

Installation Funding Approved
June 2014

Site Preparation Complete
Sept. 2014

Equipment Installation Complete
October 2014

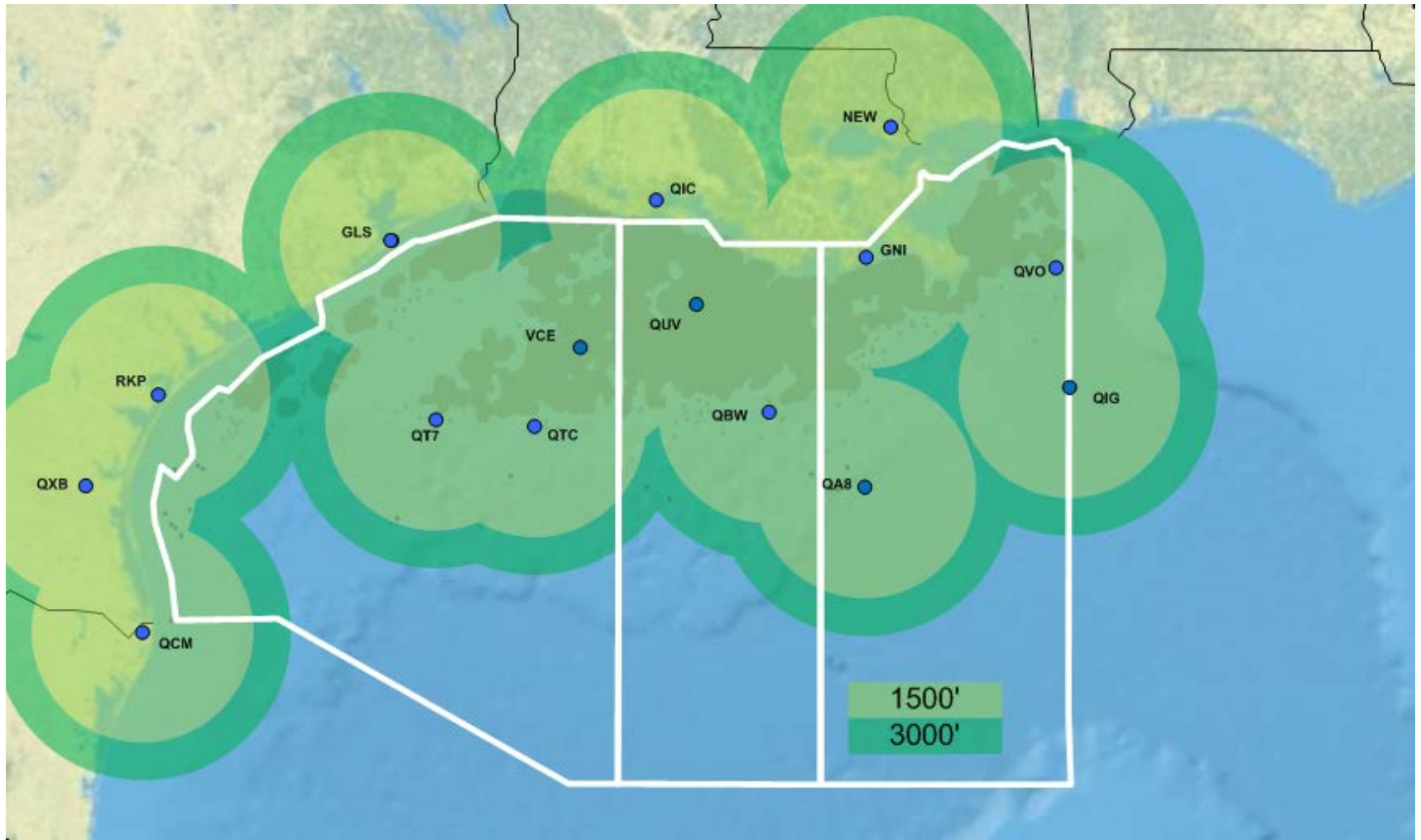
RCAG Commissioned
December 2014



HSAC October 2014



Current Coverage

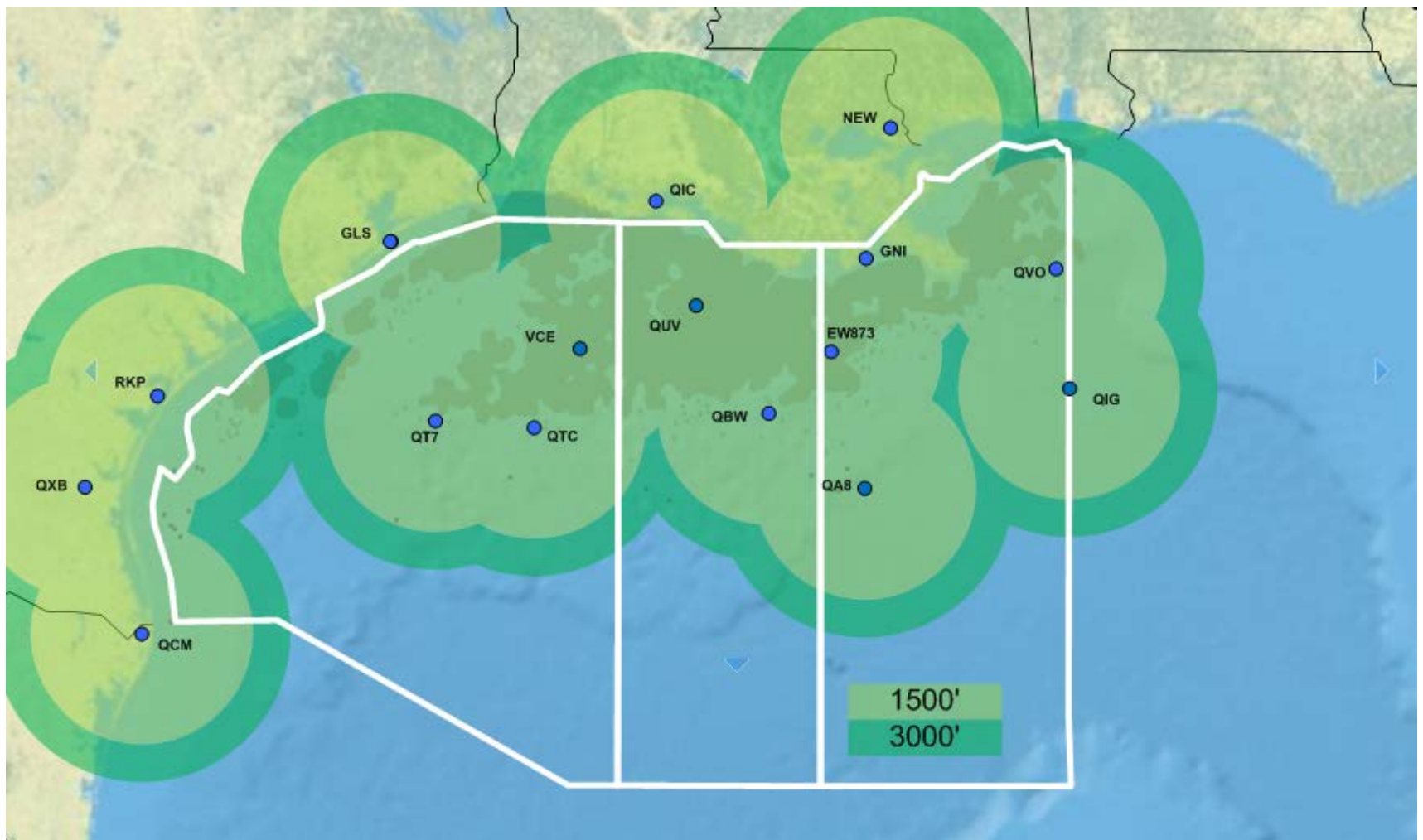


Surveillance and Broadcast Services

HSAC October 2014



Final Coverage with EW873



Surveillance and Broadcast Services

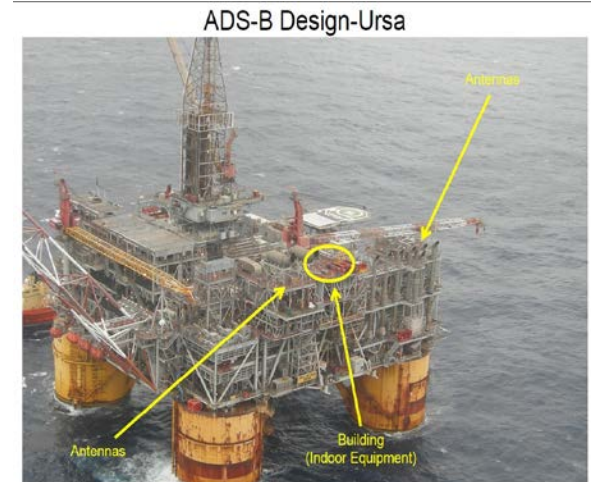
HSAC October 2014



Install ADS-B on Shell Ursa

- Objective:** Restore ADS-B Surveillance below 3000' in active area of SV-179 (179-19, MYT)
- Background:** ATP Innovator Platform at Mississippi Canyon (MC) 711 removed from service in February 2014. Innovator was the first ADS-B to be commissioned on a GOM platform (04/09). Innovator moved to salvage yard for equipment removal.
- Approach:** Exelis to work with Shell for engineering design, site-prep and installation. Install dedicated equipment building. Recover assets from Innovator.
- Status (10/14):**
- Liaison agreement between Exelis and Shell in coordination
 - ADS-B Radios removed from Innovator
 - Innovator building to be removed, refurbished and reused

- Complete
- In Progress
- Not Yet Started



Innovator
(MC711)
Shut Down
February 2014

Equipment
Installation
Decision
April 2014

Liaison
Agreement
Complete

Building
Preparation
Complete

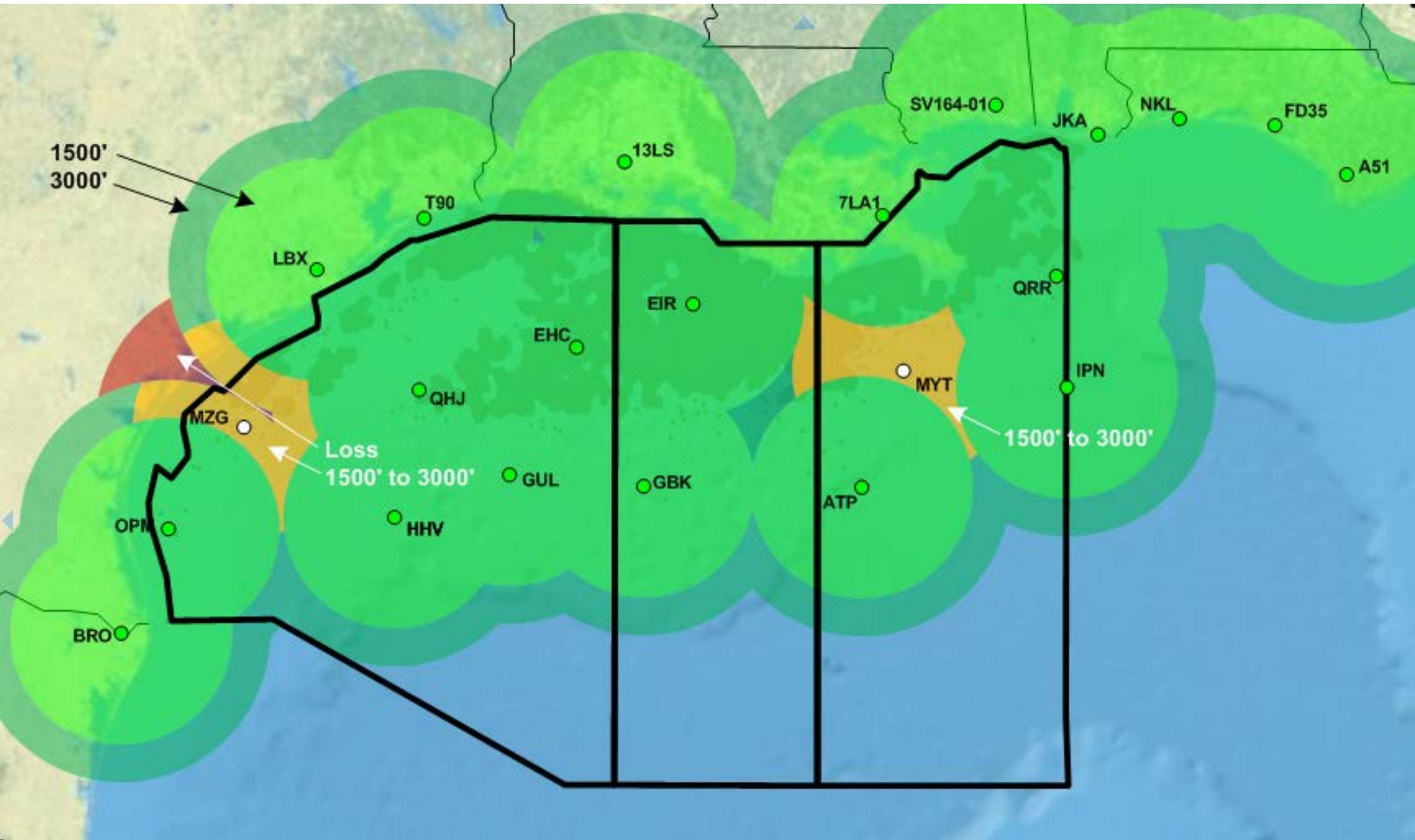
Site
Preparation

Equipment
Installation

ADS-B
ISAT



ADS-B Coverage – MYT/MZG Outage

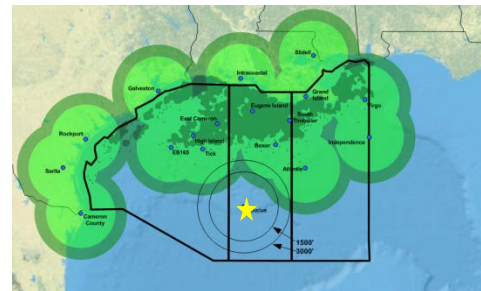


Install VHF Communication, ADS-B, and AWOS on Anadarko's Lucius Spar (Keathley Canyon 875)

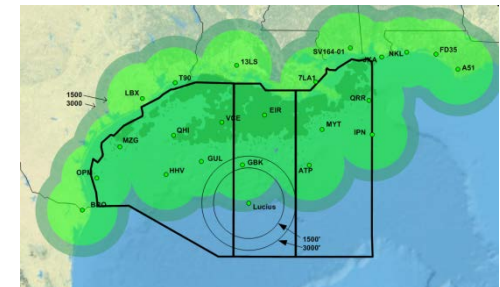
- Objective:** Increase low altitude surveillance and VHF communication coverage in the southern Gulf of Mexico
- Scope:** Install VHF communication, ADS-B, and AWOS
- Approach:** Incorporate FAA requirements into the design and construction of the platform
Complete site preparation and equipment installation offshore
- Schedule:** February 2015 through October 2015
- Status:** FAA Control Room and AWOS 'Porch' constructed
Installation Agreement between FAA and Anadarko executed on 8/28/14
Final engineering work to begin in Feb 2015



- Complete
- In Progress
- Not Yet Started



VHF coverage with Lucius



ADS-B coverage with Lucius

Acquisition
Program Baseline
ADS-B FY14-20
May 2012

FAA Control Room
and Antenna Porch
constructed
Feb 2014

Installation
Agreement
signed
August 2014

FAA Control Room
build-out
completed
July 2015

FAA equipment
installed
August 2015

ADS-B / AWOS
commissioned
September 2015

VHF comm
commissioned
October 2015



April Gulf ATC A/G Comm

- **Atlantis and Boxer Off-Line Simultaneously**
 - Affected ATC, Caused Flight Delays
 - Boxer fixed within days, Atlantis took longer
- **Coordinated efforts to troubleshoot/repair**
 - Included FAA, platform personnel, telecomm
 - Excellent help from BP, Shell, Rignet and ITC Global
- **FAA met with telecomm providers**
- **Working with BP for permanent fiber link**



FAA-Approved V2 ADS-B Out Avionics

* multiple STC dates; only earliest shown

Surveillance Manufacturer	Model #	Approved Position Source(s)	Aircraft	Approval Date	AML Approved
FreeFlight	FDL-978-TX	FreeFlight WAAS 1201	Agusta Westland 139	STC Jun 2012	No
Trig-Avionics	TT-22	FreeFlight WAAS 1201	S-76A/B/C (all variants)	STC Nov 2012*	No (S-76x)
Honeywell	MRC XPDR w/ADS-B Out	CMC CMA-3024 SBAS GNSSU MK II and CMA-4024 SBAS GNSSU	AgustaWestland 139	EASA TC Feb 2013	Yes via Production
FreeFlight	FDL-978-XVR	FreeFlight WAAS 1201 (either external or integrated in FDL-978-XVR)	Bell-206B	STC Feb 2014	No
Rockwell	TDR-94D-550	Universal UNS-1Fw	S-92A S-76C, S-92A	TC Feb 2014 STC Mar 2014	Yes via Production No
Rockwell	TDR-94D-501 / 551		551- Medium and heavy lift helicopters	TSOA Oct 2014	N/A

Note: "N/A" indicates equipment has received TSOA, but has not received any other certification



FAA-Sponsored Projects that will result in Version 2 ADS-B Out Avionics

Surveillance Manufacturer	Model #	Planned Position Source(s)	Aircraft	Planned STC Availability	Operator
FreeFlight	FDL-978-XVR	FreeFlight WAAS 1201 (either external or integrated in FDL-978-XVR)	Rotorcraft MML	Nov 2014	Approximately 40 rotorcraft in Alaska



FAA-Approved Version 2 ADS-B In Avionics

Manufacturer	Model #	Aircraft	STC Date	AML Approved
FreeFlight	FDL-978-XVR	Bell 206	STC Feb 2014	No



FAA-Sponsored Projects that will result in Version 2 ADS-B In Avionics

Manufacturer	Model #	Aircraft	Planned STC Availability	Operator
FreeFlight	FDL-978-XVR	Rotorcraft MML	Nov 2014	Approximately 40 rotorcraft in Alaska



ADS-B Helicopter Equipage in Gulf of Mexico

- **Approximate # of IFR capable helicopters in the Gulf fleet: 156***
- **Approximate # of IFR capable helicopters with ADS-B (v1 [DO-260A] or v2 [DO-260B / DO-282B]): 115**
 - 260A equipped: 41
 - 260B / 282B (UAT): 74**
- **Percentage of IFR fleet with ADS-B: 74%**

*2013 HELICOPTER SAFETY ADVISORY CONFERENCE (HSAC) GULF OF MEXICO OFFSHORE HELICOPTER OPERATIONS AND SAFETY REVIEW

**2020 RULE COMPLIANT ADS-B





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