
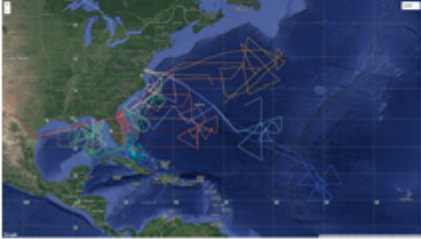


Sensing Hazards Using Operational Unmanned Technology (SHOUT)

Arctic and Cyclonic Hazardous Weather
Feb 2016, Aug-Oct 2016





28
DEC
2016

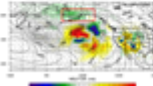
El Nino Rapid Response (Pacific/Arctic Weather)

- 75.8 Flt-Hrs (3 Science Flights)
- 90 Sondes (~30 Sonde Flt-Hrs)
- **Improved Alaskan Weather Forecasting**
- Flight with NOAA G-IV and USAF WC-130(2)

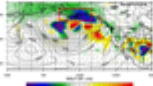
Hurricane Rapid Response (Atlantic/Gulf)

- 239.2 Flt-Hrs (9 Science Flights)
- 647 Sondes (~215 Sonde Flt-Hrs)
- Four Storms (Gaston, Hermine, Karl, Matthew)
- Coordinated flight with *Hurricane Hunters*
- Dual operations NASA Armstrong & Wallops
- Reduced Staffing & Cost with increase Oa
- Real-time data distribution

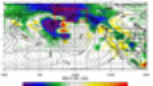
24 hour forecast



48 hour forecast



72 hour forecast



For this weather system, MSLP forecasts are improved for 1-3 day forecasts over Alaska and central USA using Global Hawk dropsonde data

NOAA UAS Program Briefs at 2016 AGU Fall Meeting

UAS Program Director, Robbie Hood, Highlights the Sensing Hazards with Operational Unmanned Technology (SHOUT) Global Hawk's Successes

With over 20,000 attendees in 2016, AGU's Fall Meeting in San Francisco from Dec 12th-15th was the largest Earth and space science meeting in the World. This year marked the Fall Meeting's 49th year as the premiere place to present research; latest discoveries,

trends, and challenges in the sciences. NOAA UAS Program Director, Robbie Hood, briefed the Sensing Hazards with Operational Unmanned Technology (SHOUT) successes during the Unmanned Aerial Systems (UAS) in the Geosciences session.

The Unmanned Aircraft Systems (UAS) Program of the National Oceanic and Atmospheric Administration (NOAA) is working with the National Weather Service, the National Ocean Service, other Federal agencies, private industry, and academia to evaluate the feasibility of UAS observations to provide time critical information needed for situational awareness, prediction, warning, and damage assessment of hazards. This activity is managed within a portfolio of projects entitled Sensing Hazards with Operational Unmanned Technology (SHOUT). The diversity of this portfolio includes evaluations of high altitude UAS observations for high impact oceanic storms prediction to low altitude UAS observations of rivers, severe storms, and coastal areas for pre-hazard situational awareness and post-hazard damage assessments.

Each SHOUT evaluation project begins with a proof-of-concept field demonstration of a UAS observing strategy for a given hazard and then matures to joint studies of both scientific data impact along with cost and operational feasibility of the observing strategy for routine applications. The technology readiness and preliminary evaluation results will be presented for several UAS observing strategies designed for improved observations of oceanic storms, floods, severe storms, and coastal ecosystem hazards.

Is this is an issue of potential concern?

This item has high visibility

Geographic Location (Relevant region, city location) AGU Fall Meeting, San Francisco, CA

Partnering offices OAR, UAS Program

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