NOAA Unmanned Aircraft Systems Request for Proposals

Check out all the UAS News

UAS deployed in the Arctic for Steller Sea Lions Surveys

Workshop for Optimal Unmanned Aircraft Systems River Observing Strategy held at NOAA, Boulder, February 21-23, 2012

That's *Professor* Global Hawk (off-site link)

The opportunity for submitting pre-proposals closed on January 11, 2012.

Next deadlines:

- 24 Apr 2012 – Proposal selection

Announcement

The NOAA Unmanned Aircraft Systems (UAS) Program has been actively building capacity and expertise with UAS technologies since 2005. Over this time period, the NOAA UAS Program has managed a diverse investment portfolio that has developed tools, procedures, and practices needed to productively utilize innovative, cost-effective, and operationally feasible UAS technologies.

The NOAA UAS Program has also sponsored conceptual demonstrations of UAS platforms and payloads of varying technology readiness and maturity. These conceptual studies have successfully established that UAS technologies offer tremendous potential to fill critical observing gaps in current NOAA research and operational applications.

The NOAA UAS Program now solicits proposals from NOAA Federal and Cooperative Institute personnel for competitively selected field projects demonstrating viable concept of operations for unmanned systems. The objective of each proposed effort should be to advance the technology readiness of unmanned systems even further toward feasible routine research or operational applications which directly address the NOAA mission and the goals of the NOAA Next Generation Strategic Plan.

This solicitation is the first of several requests for proposals the NOAA UAS Program will be releasing during the next three years. A broader solicitation open to extramural NOAA investigations from other Federal agency, academia, and private industry teams is expected to be released later in 2012.

Important Documents:

- **FY 2012 Request for Proposals Supporting NOAA's Mission Goals using Unmanned Aircraft Systems (UAS) Technology** - outlines the scope of the solicitation
- **NOAA UAS Competitive Award Process – *A Manual of Procedures*** - outlines the NOAA UAS Program proposal process including proposal formats
- **Evaluation Criteria – FY 2012 Request for Proposals Supporting NOAA's Mission Goals using Unmanned Aircraft Systems (UAS) Technology**- describes the proposal evaluation criteria
- **Presentation from December 13 Webinar: "NOAA Unmanned Systems Aircraft Systems Program Overview."**

Questions

Questions should be directed to noaa.uas@noaa.gov

Click here for a list of Frequently asked questions with answers.

New questions will be posted weekly.

NOAA UAS Program

Click here to watch a video that provides an "Introduction to the NOAA UAS Program" (Closed Captioned)

Unmanned Aircraft Systems (UAS) can revolutionize NOAA's ability to monitor and understand the global environment. There is a key information gap today between instruments on Earth's surface and on satellites — UAS can bridge that gap. Operated by remote pilots and ranging in wingspan from less than six feet to more than 115 feet, UAS can also collect data from dangerous or remote areas, such as the poles, oceans, wildlands, volcanic islands, and wildfires. Better data and observations improve understanding and forecasts, save lives, property, and resources, advancing NOAA's mission goals.

UAS can help NOAA meet its mission goals with a more advanced fleet capable of collecting data from areas that are currently inaccessible (such as under clouds). Specifically, UAS may:

- Extend hurricane landfall lead times by observing storm environments.
- Improve the accuracy of storm forecasts, benefitting emergency managers and diverse private industries, from energy and tourism to airlines.
- Improve climate change understanding, to help mitigate and plan for it.
- Assess Arctic ice change and affects on ecosystems and coasts.
- Improve flood and drought forecasts, helping water managers.
- Increase safety and success in fighting wildfires that threaten people and property.
- Monitor coasts, oceans, environments important for fish, and marine sanctuaries.

NOAA's UAS Mission Goals

- Conduct UAS research in three test regions: the Arctic, Pacific, and Gulf- Atlantic.
- Obtain presently unattainable data relevant to climate change, hurricanes, Pacific storms, fisheries, marine sanctuaries, endangered species, wate rvapor transport, and coastal zones.
- Improve economic competitiveness in this rapidly developing sector of the aviation industry.

Accomplishments

NOAA researchers and collaborators:

- a collaborative UAS mission with NASA and Northrup Grumman off the coast of California in 2009, using NASA's Global Hawks to collect atmospheric and other data.
- sent a UAS on 17 flights across Greenland's Jakobshavn glacier in 2008, gathering data on meltwater lakes.
- flew a UAS into post-tropical storm Noel in 2007, detecting higher winds than found by conventional platforms.
- successfully launched and landed a UAS from a ship — NOAA's Oscar Dyson, in Puget Sound in 2008.
- successfully tested the ability of a small UAS to measure evaporation from the ocean surface along the California coast, in 2008.

Next

NOAA's UAS program is also planning:

- analyses called OSSEs (Observing System Simulation Experiments), to evaluate the potential impact of UAS-collected data on forecasts.
- to investigate the benefit of UAS in studying hurricane intensity, in a collaborative experiment with NASA.

Partnerships

NOAA's UAS work draws on expertise from industry, academic, and government partners. This broad coalition seeks to apply technologies used in national defense — including high- and low-altitude UAS, communication technologies, and instruments — to benefit the global environment.