



# Scientific Committee for Oceanographic Aircraft Research UNOLS SCOAR

*Report to the UNOLS Council  
December 1 2016*

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San Diego, CA



Selection of presentations available on the SCOAR website:  
<https://www.unols.org/committee/scientific-committee-oceanographic-aircraft-research-scoar>

THANK YOU Phil!!!

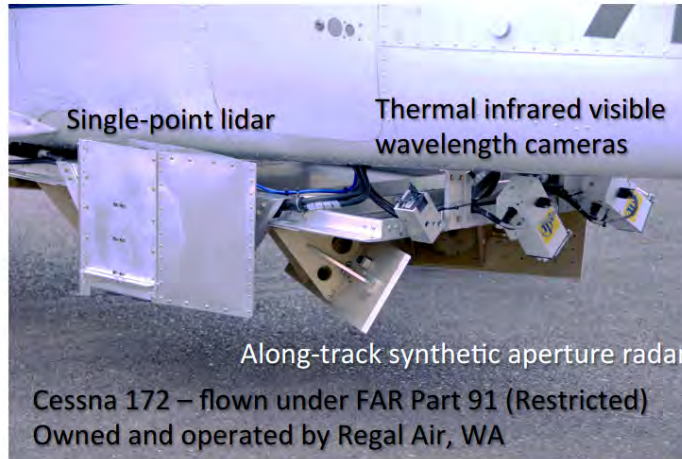


9

Bringing UAS to America's Skies



### Compact Airborne System for Imaging the Environment (CASIE)



### Up, Up, and Away!

Marine Robotics and Remote Sensing  
@ Duke University Marine Laboratory

David W. Johnston

Assistant Professor of the Practice of Marine Conservation & Ecology  
Division of Marine Science and Conservation,  
Nicholas School of the Environment  
Duke University Marine Laboratory



Marine Conservation Ecology  
Innocuoccupied Systems Facility



NPS decided earlier this year to dismantle CIRPAS operations following internal audit.

Twin Otter 255: Going to NRL Summer of 2017

Twin Otter 256: Going to NRL Fall of 2017

Science Instrumentation: Staying at NPS in the Meteorology Dept. with Haf and Roy

Pelican 783: NASA Ames??

Pelican 782: Strike.

UAV Ground Stations: Transferred to Target Systems Division, Pt. Mugu NAS Completed Nov 2016.

A-10: At NCAR

Sentry UAS: Going to combo of CG, NOAA and NASA in early 17??

Mobile Weather Radar: FAA Early 2017

TPQ-37 Radar: DRMO

Hanger 507: Going to NRL Fall of 2017??

McMillian UAS Airfield: Transferred to CRUSER Program

NAVAIR CIRPAS Contract: Going to NRL Fall of 2017



(as of 2016/11/27 – per Bob Bluth – Lots of unknowns remain, including for TO scheduling)

**Sent request to Marine SUPs prior to SCOAR meeting. Found limited number of UAS ops from ships in 2015/16 but number expected to rapidly grow.**



## UAS use on UNOLS Vessels

Dear Marine Superintendents,

This year's UNOLS SCOAR meeting will be held in Marina, CA on June 28-29 2016. A major focus of the meeting will be on the use of unmanned airborne platforms from research vessels under the new FAA requirements. To better understand the needs of the research community, could you please provide information about past cruises (over the last two years) that made use of Unmanned Aerial Vehicle (UAVs) on your ship(s)?

- Cruise dates
- Project title/description/PI name
- Vehicles used and operators (i.e. University vs. commercial provider)
- Brief summary of cruise research accomplishments/highlights

In general, has there been any UAV operations (by the ship's crew, science party, other) from your ship(s)?

Your feedback is greatly appreciated and requested by Wednesday, June 22nd. Please reply to Annette at [office@unols.org](mailto:office@unols.org). Thank you.

Regards,

Luc Lenain, SCOAR Chair  
and Annette DeSilva

Team includes NOAA, NSF and SCOAR & RVOC members.

Goals: Develop UAS Policy for Shipboard Operations on UNOLS ships

*leveraging existing and on-going efforts by NSF, NOAA, USCG*

## UAS Policy:

With the recent publication of the FAA small UAS rule, a policy for UNOLS ships has become necessary. Effective immediately, operation of Unmanned Aircraft Systems (UAS), or drones, from or over UNOLS ships may not take place without demonstrated compliance with national or international regulations (ICSA, FAA) and specific approval of the ship's captain or designee, as a minimum. This applies to crew, techs and members of the science party, and refers to all operations, whether recreational, educational, or professional. Obtaining national approvals, such as FAA's Sec 333 exemption or Certificate of Authority or Waiver (COA), as well as pilot qualifications, are not a guarantee the operations will be approved by the ship's captain. Recreational or hobbyist freedom of use over land is not available at sea, so the importance of contacting the ship's operator ahead of time is critical. Detailed policies and processes are in development by SCOAR to provide guidance and training.

In the process of

- Compiling guidance documents and information to the research community who are interested in using airborne assets in support of their research (e.g. FAA POC per region, aircraft operators with contact information, recent field deployments summary with POCs etc.)
- Developing pilot training for UAS operations from ships
- Chief Scientist Training Program
- Draft guidance document for PIs who are planning UAS operations from ships
- Discussing policy on use of UAS for non-research purposes from ships

Additional members will be added by the end of the year.

- SCOAR received 7 applications this summer. We decided to postpone the vote till the CIRPAS divestment plan was finalized.

- Ro Bailey unexpectedly passed away on November 2 2016. She had played a critical role in SCOAR since joining in early 2013, leading the UAS regulatory aspects of the SCOAR activities. She was leading the subcommittee on UAS Shipboard Operations.



Rosanne "Ro" Bailey

- We anticipate the nomination of one new SCOAR member by the end of the calendar year with extensive UAS policy & operations background, and a second one in the first quarter of 2017.



# STUDY OF THE SEA-SURFACE MICROLAYER AND AIR-SEA BOUNDARY

UAS OP

