Scientific Committee for Oceanographic Aircraft Research

RVOC Meeting
Rhode Island
20 April 2010
SCOAR MEMBERS as of April 2010

Daniel Schwartz University of Washington
John Bane University of North Carolina
James Hain Associated Scientists at Woods Hole
Steven Ramp Monterey Bay Aquarium Research Institute
Tbd: Open Position...
Richard Zimmerman Old Dominion University
Bob Bluth, (ex-officio) CIRPAS, Naval Postgraduate School
Haflidi Jonsson, (ex-officio) CIRPAS, Naval Postgraduate School
Roy Woods, (ex-officio) CIRPAS, Naval Postgraduate School
Steven Hartz, RVTEC Rep (ex-officio) University of Alaska
SCOAR Activities 2009-2010

June 11, 2009:  SCOAR Teleconference Meeting

Sept. 15-16, 2009:  2nd Annual Alaska UAS Interest Group

Nov. 9-10, 2009:  ICCAGRA The Interagency Coordinating Committee for Airborne Geosciences Research and Applications.  Tampa, Florida


Ocean Technology & Infrastructure Needs for the next 20 Years -- Poster Session at Ocean Sciences Meeting

June, 22-23, 2010:  SCOAR Meeting at CIRPAS.


Call for Abstracts, early April 2010.
CIRPAS

- The Center for Interdisciplinary Remotely-Piloted Aircraft Studies (CIRPAS) was established at the Naval Postgraduate School in Monterey, California by the Office of Naval Research in the Spring of 1996 to provide Manned and Unmanned Air Vehicle flight services to the scientific and engineering communities.

FACILITIES:

- Marina Facility
  - 3500 ft runway - manned operations only
  - 30,000 sq ft maintenance hangar
  - Instrumentation and Calibration Laboratory
  - Maintenance and Payload integration shops
  - Offices

*Site of June, 2010 SCOAR Meeting...*
THE AIRCRAFT FLEET

UV 18-A Twin Otter

Pelican (2)

Predator (3)
A Century of Synergism: Maritime Air!

Eugene Ely. Nov 1910

Highlights of the Ocean Sciences Town Hall Meeting - Portland, OR. Presentations on UNOLS Website…
Autonomous Aircraft, Scripps, NOAA PMEL, UAF Adv.Ceramic Res. MANTA & launcher
Air (C-130)-deployable Coyote

courtesy, USCG
MMS U.Michigan Flying Fish Self-relocating ATON Buoy used off Alaskan North Slope
Bering Sea launch and recovery of UAF Unmanned Aircraft
Flux Platforms for Fair to Moderate Weather

Buoy: 10m
Ship: 14m
Aircraft: >33m
What about a hybrid? UAS and Manned Aircraft...

More to come!
Choice of platform in Inhospitable Ocean Environment

1. Buoy – few, fixed-point, motion
2. Ship – slow, motion, flow distortions
3. Aircraft – mobile, low altitude limit
4. Unmanned Aerial Systems (UASs, ex-UAVs) – small payload, underpowered
5. Modify existing towed target drone technology for controlled height over the sea while tow aircraft is safely above.

Host aircraft: CIRPAS Twin Otter

Cable

=1.65 mm
(2.38 mm)
Thank You!