

Scientific Committee for Oceanographic Aircraft Research

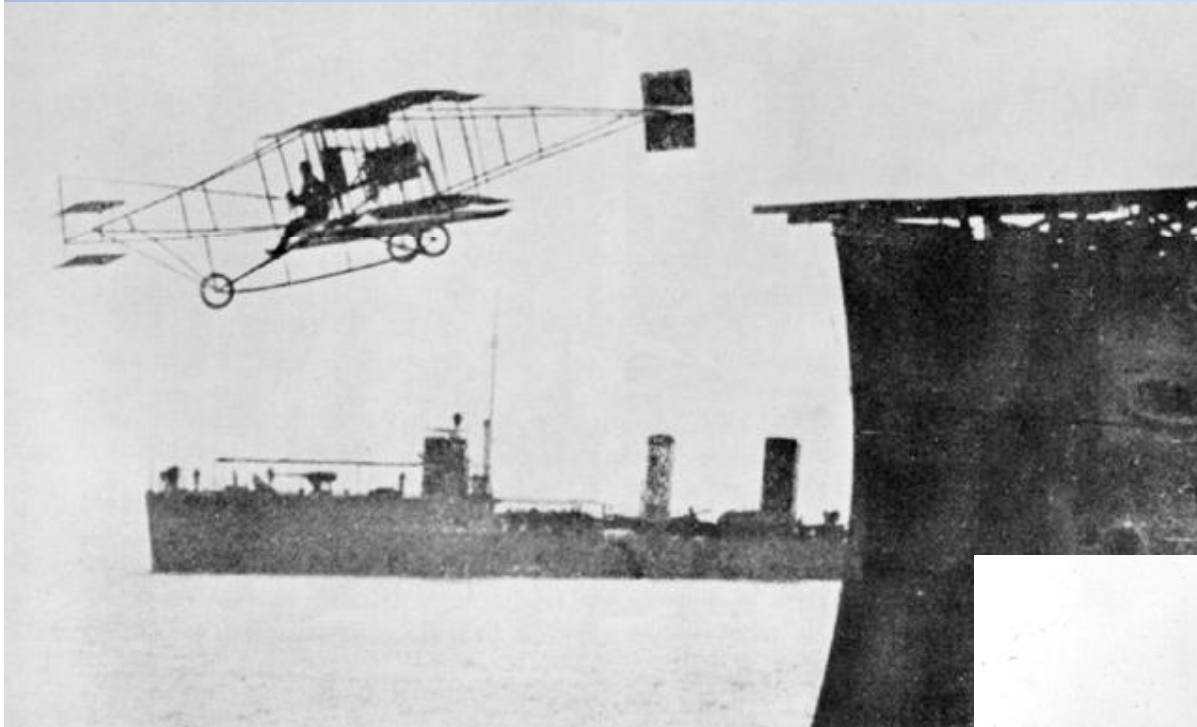
Ocean Sciences 2010



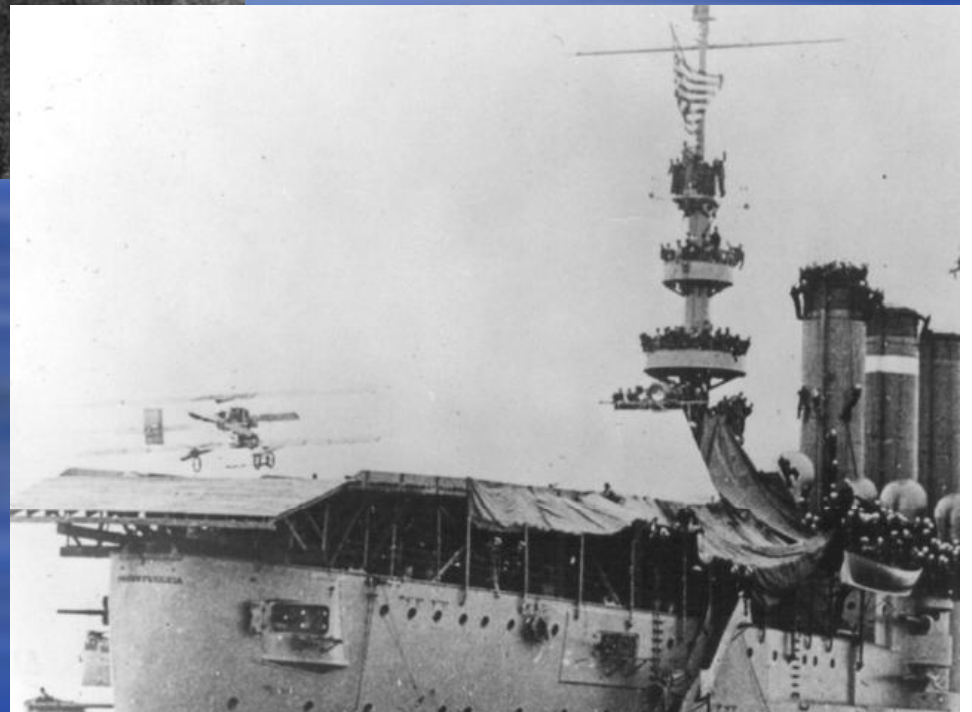
***Town Hall Meeting:
The view from above!***



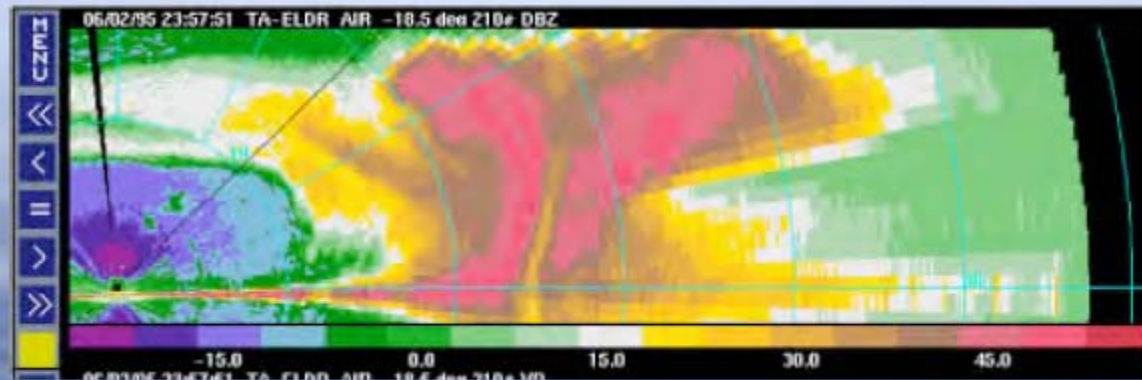
Aircraft on ships? Who'd have thought?



Eugene Ely. Nov 1910



SCOAR MEMBERS as of OCTOBER 2009



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

Daniel Riemer University of Miami, RSMAS

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
Fairbanks, Alaska**

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

**Feb. 22-26, 2010: Ocean Sciences Meeting - SCOAR Town
Hall Meeting. (Community outreach opportunity). Portland**

**Ocean Technology & Infrastructure Needs for the next 20
Years -- session at Ocean Sciences Meeting**

Sept. 19-24, 2010: MTS/IEEE Oceans Meeting, Seattle

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.
- ◆ CIRPAS became an University National Oceanographic Laboratory System (UNOLS) National Facility on 27 September 2002



THE AIRCRAFT FLEET



UV 18-A Twin Otter



Pelican (2)



Predator (3)

CIRPAS Twin Otter

Center for Interdisciplinary Remotely-Piloted
Aircraft Studies





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



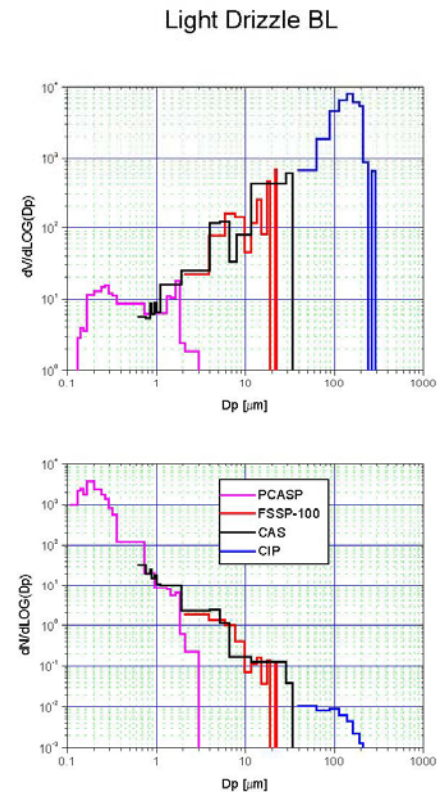
Twin Otter: Facility Payload

Wings: CAPS, FSSP, PCASP, CIP, PIP, APS

Hard points and pods for 'research' or 'guest' instruments



**Aerosol and Cloud
Spectrometers**





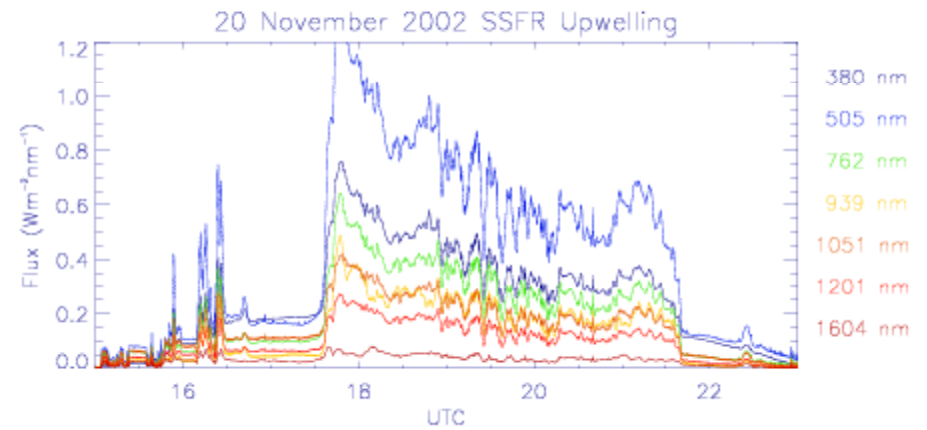
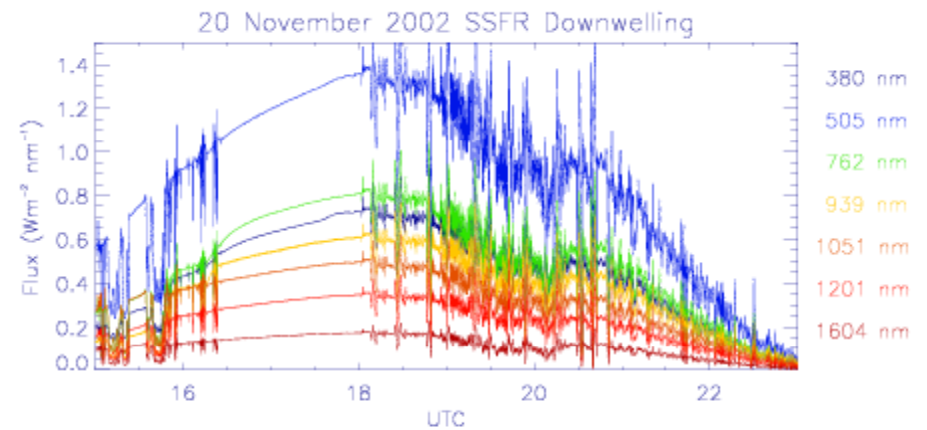
Twin Otter: Facility Payload

Cabin: Nephelometer, Sootphotometer, CPCs, UFCPC, Data System

Racks for 'Research' and 'Guest' Instruments.



Stabilized Radiometer Platform



Autonomous Aircraft, Scripps, NOAA PMEL, UAF Adv.Ceramic Res. MANTA & launcher



Air (C-130)-deployable Coyote

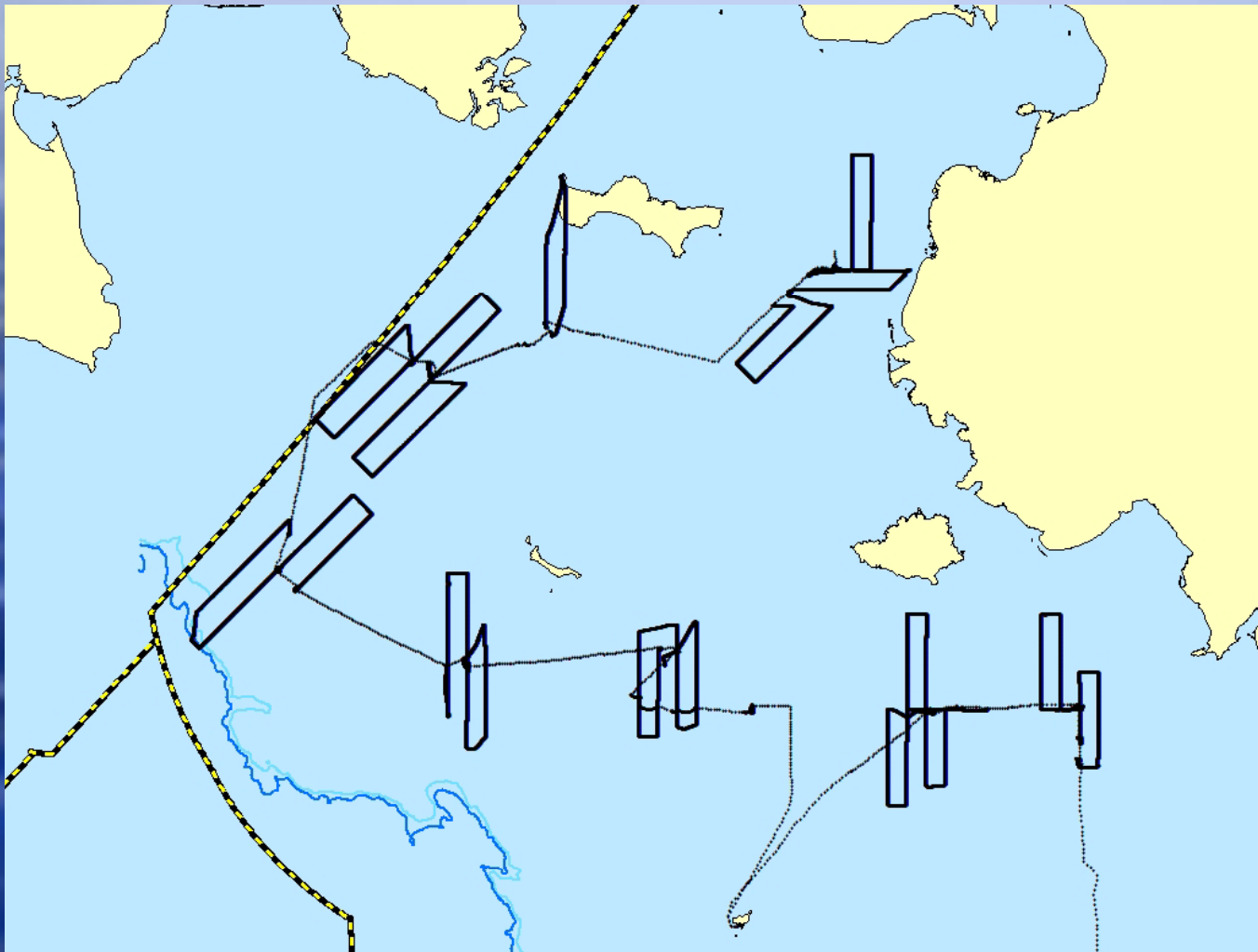


Courtesy, USCG

MMS U.Michigan Flying Fish Self-relocating ATON Buoy used off Alaskan North Slope

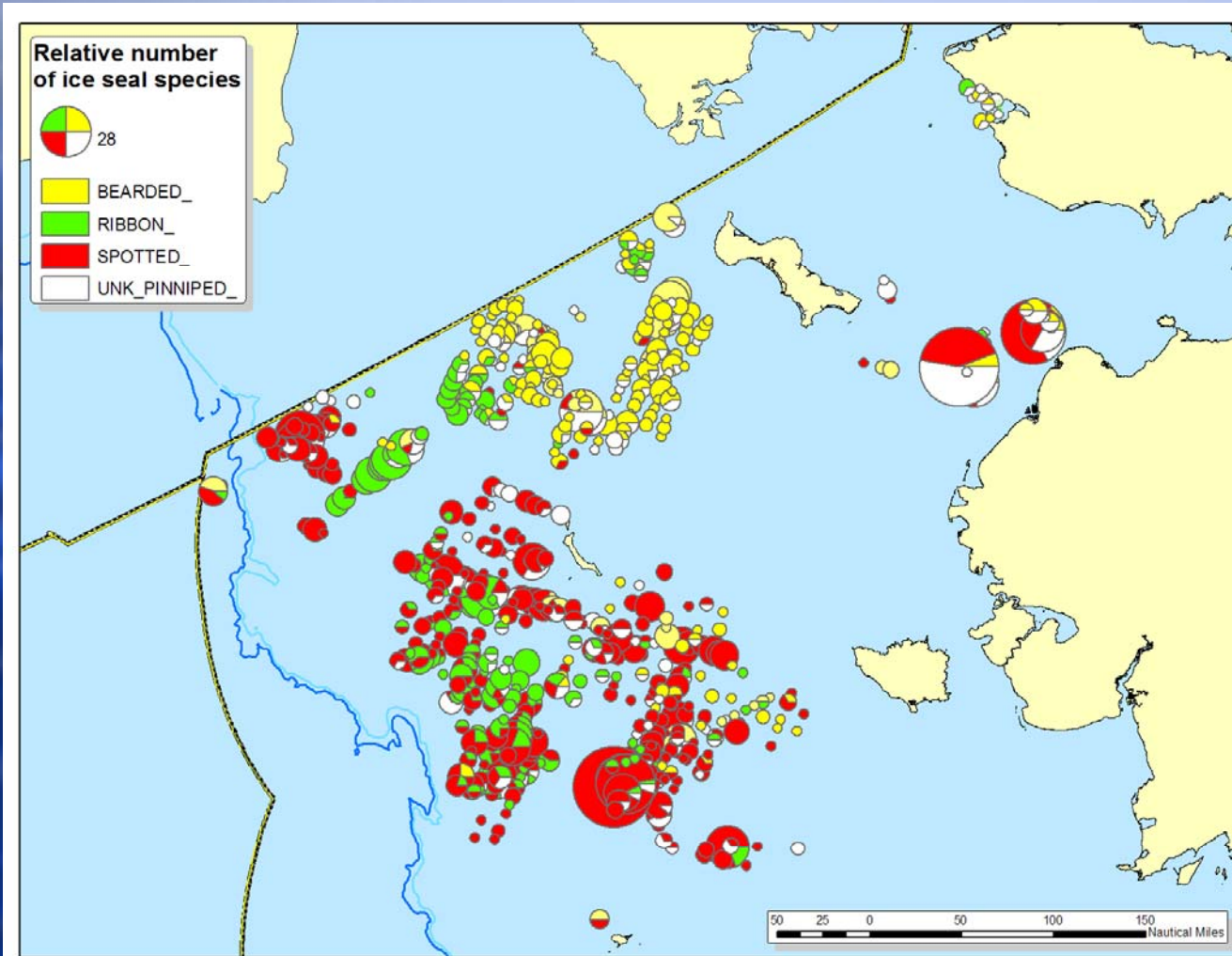


PSEA AWS08 ship & aerial tracks



Courtesy USCG

Ice Seal Abundance, Distribution



Courtesy USCG

Bering Sea launch and recovery of UAF Unmanned Aircraft



At-Sea Launch and Recovery from an AGOR-sized vessel

[NOAA / UAF Video](#)

Welcome to our future!

What about a hybrid? UAS and Manned Aircraft...



More to come!

Thank You!



National Science Foundation
WHERE DISCOVERIES BEGIN

