SAMOS DAC Status

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The Florida State University, Tallahassee, Florida USA
Current Ships

- Currently 15 research vessels providing data when at sea
  - 2.3 million 1-min records in 2007

<table>
<thead>
<tr>
<th>Operator</th>
<th>Vessel</th>
<th>Date Recruited</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHOI</td>
<td>Atlantis</td>
<td>19 May 2005</td>
</tr>
<tr>
<td></td>
<td>Knorr</td>
<td>27 Apr 2005</td>
</tr>
<tr>
<td></td>
<td>Oceanus</td>
<td>12 Apr 2008</td>
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<tr>
<td>NOAA</td>
<td>David Star Jordan</td>
<td>19 Mar 2008</td>
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<tr>
<td></td>
<td>Gordon Gunter</td>
<td>06 Jun 2007</td>
</tr>
<tr>
<td></td>
<td>Henry Bigelow</td>
<td>04 Apr 2007</td>
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<tr>
<td></td>
<td>Hi'ilalakai</td>
<td>21 Jan 2007</td>
</tr>
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<td></td>
<td>Ka'imimoana</td>
<td>21 Mar 2007</td>
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<tr>
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<td>Miller Freeman</td>
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</tr>
<tr>
<td></td>
<td>Nancy Foster</td>
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<td></td>
<td>Oscar Dyson</td>
<td>14 Feb 2007</td>
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<td></td>
<td>Ranier</td>
<td>20 Jan 2008</td>
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<tr>
<td></td>
<td>Ronald Brown</td>
<td>21 Mar 2007</td>
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<tr>
<td>USA/P/Raytheon</td>
<td>Lawrence Gould</td>
<td>10 Apr 2007</td>
</tr>
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<td>USCG</td>
<td>Healy</td>
<td>20 May 2007</td>
</tr>
</tbody>
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SAMOS
Shipboard Automated Meteorological and Oceanographic System

http://samos.coaps.fsu.edu
Recent Activities

- **WHOI**
  - Currently working to change some sensors on their vessels

- **USAP/Raytheon**
  - Sending data from *Nathaniel Palmer* in JGOFS format
  - DAC still needs to incorporate this format into daily processing

- **Vessel reports by NOAA and USCG up next**

- **Recruiting:**
  - *Pelican* and several NOAA ships underway
  - Resources becoming an issue

- **Metadata acquisition still a problem**
  - New web forms now available (ready for testing)
Current practice is to collect metadata using Word forms sent via email. This has been a limited success. Seeking better automation through either:

- ASCII text document sent via email at regular intervals from ship to shore.
- Web interface that would allow operators to directly input metadata into SAMOS ship database.
SAMOS Metadata (2)

- ASCII format would mimic SAMOS data format.
  - $SMETA,CS:KCEJ,VAR:AT,H T:20.4,UNIT:DegC,…
  - Good for automation
  - XML would also work

- Web approach may be preferable for ease of implementation.

- If you are interested in a live demo, please see either Jeremy Rolph or Shawn Smith during the meeting

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SAMOS Data Processing

- Automated processing
  - Working to develop and implement new statistical tests
- Visual QC
  - Volume of ships making this problematic for all vessels
  - New automated QC should reduce workload
SAMOS Data Processing

- Data distribution
  - Improving direct access to metadata for all participating vessels
  - New hourly subsets of data now in our database
  - Search capability and Google maps under development

- Archival
  - More work needs to be done in this area
  - Sample archival data being evaluated by NODC
Other Efforts

- NOAA ESRL (C. Fairall lead) has developed a portable seagoing air-sea flux standard (PSAFS)
  - PSAFS measures direct fluxes, mean meteorology, radiation and precipitation
  - Dan Wolfe will describe recent activities
- Collaborating with MATE, USF, and others to develop training materials for technicians
- Need easier to apply examples and tools for techs
  - Based on Marine Handbook
  - Basic background science in meteorology and oceanography
  - Possibly on-line tutorials

Courtesy: C. Fairall

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