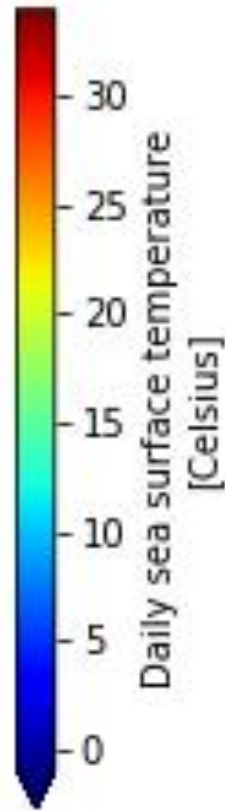
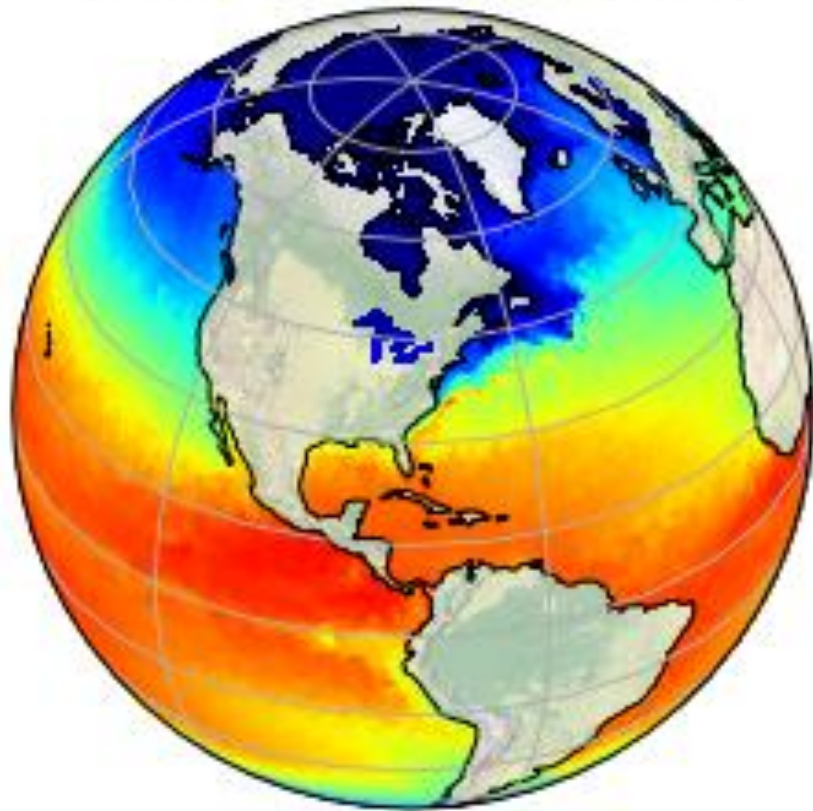


time = 2018-04-10, zlev = 0.0



GHRSSST XX

RSS / MISST report

C. Gentemann

RSS RDAC Introduction

- Production of
 - AMSR2, GMI, WindSAT SSTs
 - NRT status: AMSR2 L2P
 - NRT status: GMI L3P, WindSat L3P
 - Reprocessing status: regular reprocessing occurs at RSS and is propagated to the GHRSSST files

MISST Project 2018 - 2023

Multi-sensor Improved Sea Surface Temperature: continuing the GHR SST partnership & improving Arctic data

PI: Chelle L. Gentemann, Earth and Space Research

Co-I: Peter Minnett, University of Miami

Co-I: Michael Steele, University of Washington

16 partners in :

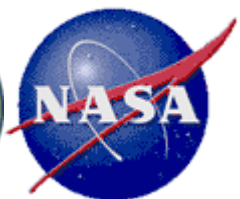
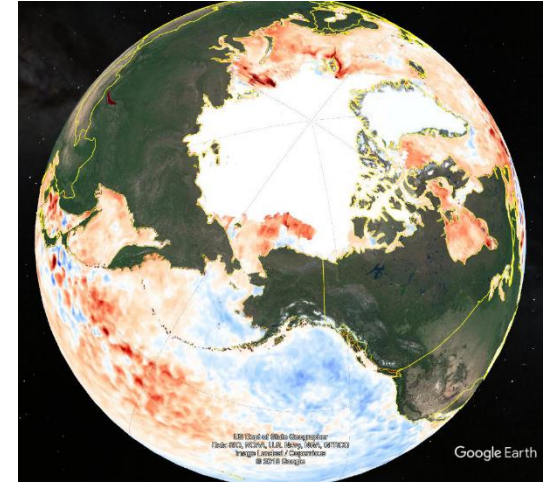
Industry: Richard Jenkins (Saildrone), Jean-Francois Cayula (Vencore)

Academia: Sandra Castro (U.Colorado), Peter Cornillon (U.Rhode Island), Dale Robinson (UC Santa Cruz), Andy Harris (U. Maryland)

Governmental: NASA: Edward M. Armstrong (JPL/Caltech), Toshio Mike Chin (JPL/Caltech), Jorge Vazquez (JPL/Caltech), Vardis Tsontos (JPL/Caltech)

Governmental: NOAA: Kenneth Casey (NCEI), Edward Cokelet (NOAA/PMEL), Eileen Maturi (NOAA/NESDIS/STAR), Gary Wick (NOAA/OAR/ESRL), Cara Wilson (NOAA/NMFS/SWFSC)

Governmental: ONR: Charlie Barron (NRL/SSC)



Data

- 1) Coordinate and integrate new SST observations (e.g. GOES-R, VIIRS); improve data access; management and interoperability; and maintain and strengthen international collaboration.

Coordinate with the GHRSSST Project Office (GHRSSST-PO) on the proposed new distributed data system with a single point of entry

PODAAC, NOAA, IFREMER met several times since the last meeting to finalize architecture and establish a prototype metadata repository for GHRSSST datasets and federated granule search capability

Several new goes-16 and Noaa 20 viirs datasets were recently released.



5 Arctic Cruises

Five 90-day cruises to Arctic
Additional SST profile obs
Improved SST skin
Data on GTS



Image credit: NOAA PMEL

SAILDRONE GEN 4 SPECIFICATIONS AND SENSOR SUITE

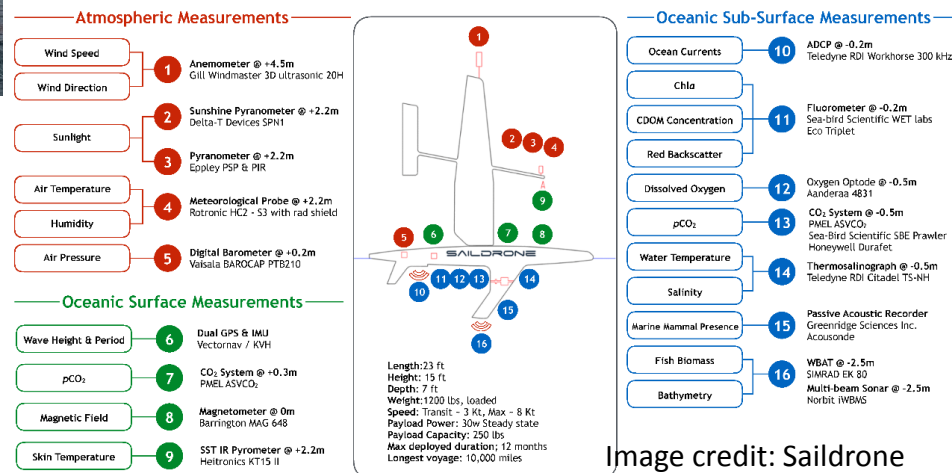
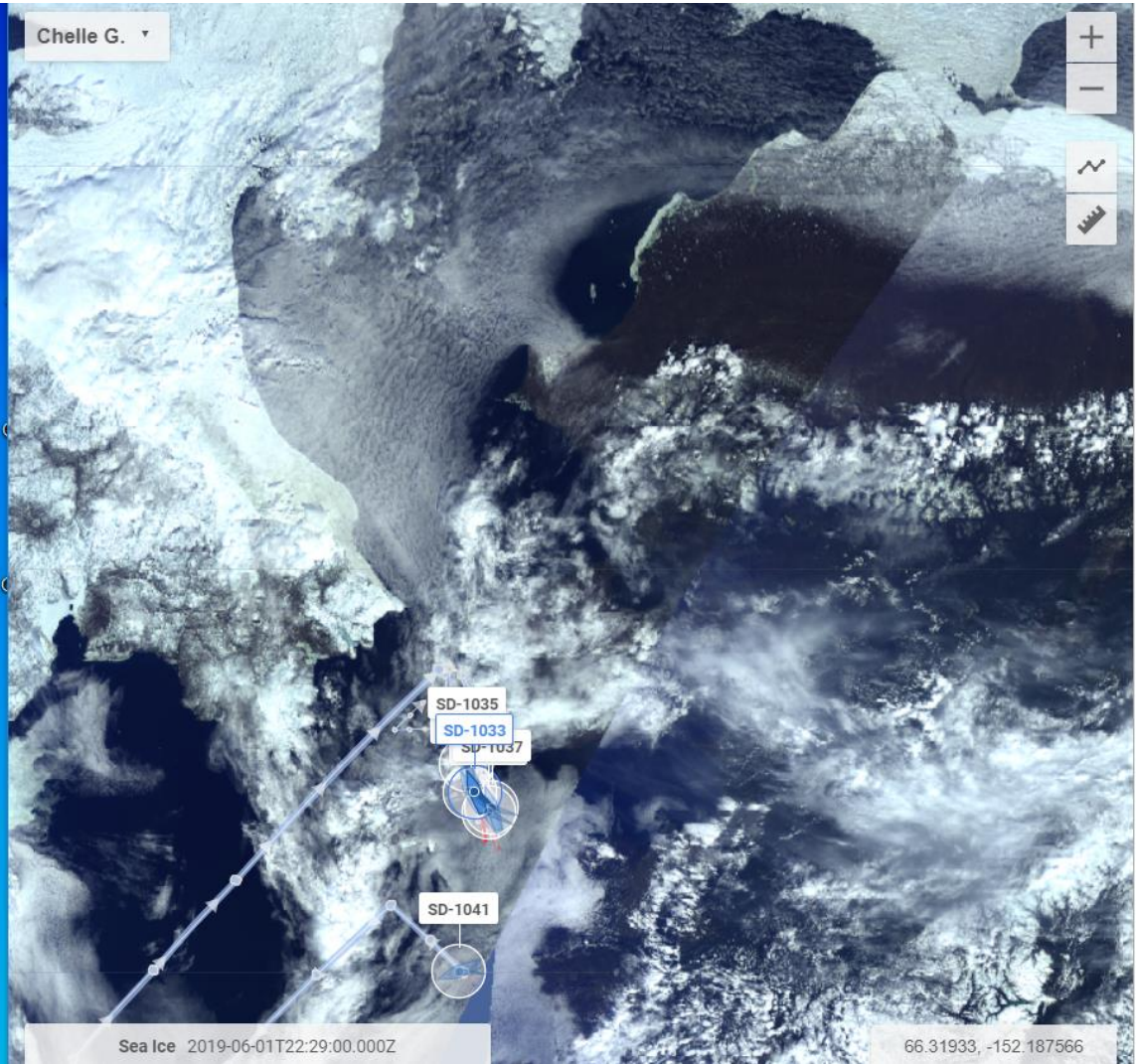


Image credit: SAILDRONE

2 Sailable Arctic USVs



MISSION Arctic Collab 2019

VEHICLE SD-1033

PLAN	COMMS	DATA	LAYERS
Weather Forecast			
<input type="checkbox"/> Wind	GFS	<input type="checkbox"/> Pressure	GFS
<input type="checkbox"/> Temperature	GFS	<input type="checkbox"/> Solar Radiation	GFS
Marine Forecast			
<input type="checkbox"/> Currents	HYCOM	<input type="checkbox"/> Salinity	HYCOM
<input type="checkbox"/> Sea Temperature	HYCOM	<input type="checkbox"/> Sea Ice	NOAA
<input type="checkbox"/> Wave Height	WW3	<input type="checkbox"/> Wave Period	WW3
Marine Observed			
<input type="checkbox"/> HF Currents	CORDC	<input type="checkbox"/> Sea Temperature	GHRSSST
<input type="checkbox"/> Sea Ice	MODIS 12	<input type="checkbox"/> Chlorophyll	MODIS
<input checked="" type="checkbox"/> OLCI L1B RGB	Sentinel-3		
Navigation			
<input type="checkbox"/> Ship Traffic			
<input checked="" type="checkbox"/> Tracked Vessels			
<input type="checkbox"/> Graticules			
<input type="checkbox"/> EEZs			

- Open data policy**
- Encourage open source software policy (OSS)**
- OSS netcdf in situ to ICOADS format converter**
- NEW Arctic data (2015 – 2023) to be put into ICOADS**
- Contact me if you have Arctic research data**



Issues to be raised at G-XX (1 slide)

- **Reduce redundancy**: Algorithm work is repeated at numerous institutions because people aren't open enough with software
- **Data Formats**: NetCDF4 has metadata sprinkled throughout the file. This doesn't work efficiently when working with big data. NetCDF4 is moving to NetCDF5 to address this issue, but there's another new format also, Zarr. **We need to start preparing ourselves for a change in format.** It's all about where you put your metadata. File formats are undergoing a new transformation and we need to start understanding what direction we want to go in. How you think about accessing data is changing.
- **ARD GHRSSST?**
- **Compliance**: CF compliancy checker not actually enough. We should develop an open source format checker using **Xarray** that checks different parts of the actual data format.

Future of GHRSSST



- Evolution: GHRSSST should embrace OSS and cloud computing and begin making requirements about OSS, reproducibility of algorithms, and the sharing of processing software in reproducible cloud environments. Set the standard again....
Imagine a git repository where we all work together on an algorithm (in python of course!).

1-5 June 2020
GHRSSST XXI – Boulder, CO

