

# Session 2D



# The Great Environmental Debate




# **Session 2D**

## **The Great Environmental Debate**

**Chair:** Aoife Ledwidge O'Brien

**Speakers:** Dr. Josh Willis NASA  
Pramod Shamar FEE  
Peter Haugan UNESCO  
Jurgen Hinrichs AVH II  
Ben Stuart





**Dr. Josh Willis NASA**



## OCEAN PREDICTION CENTER

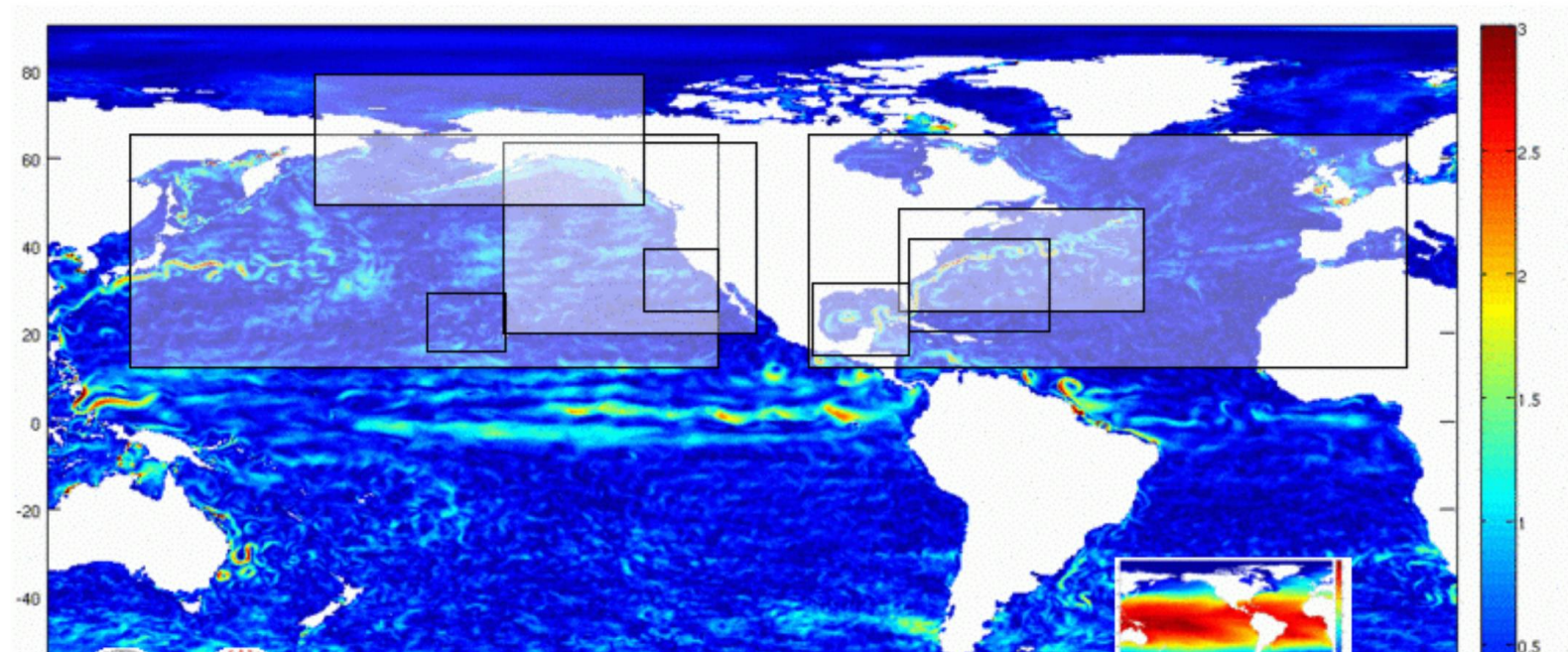
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION



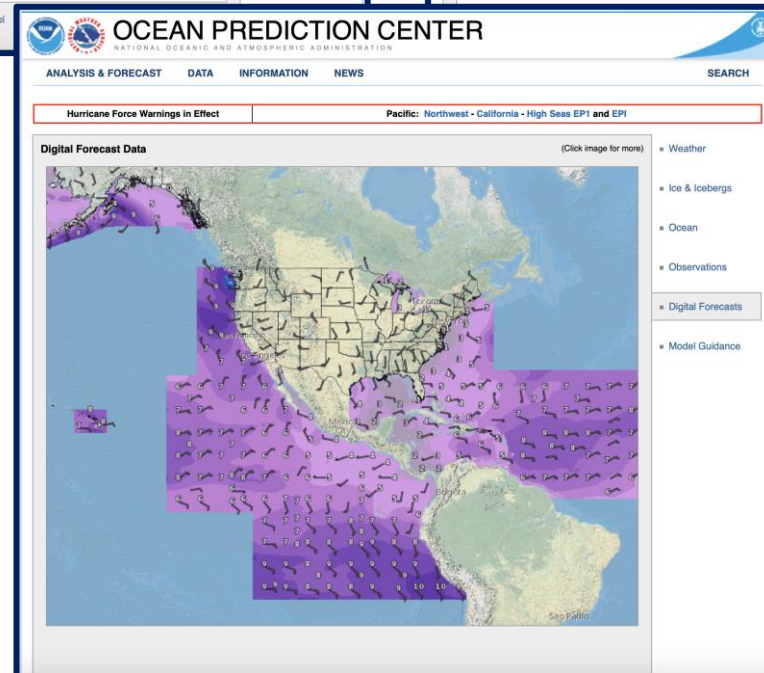
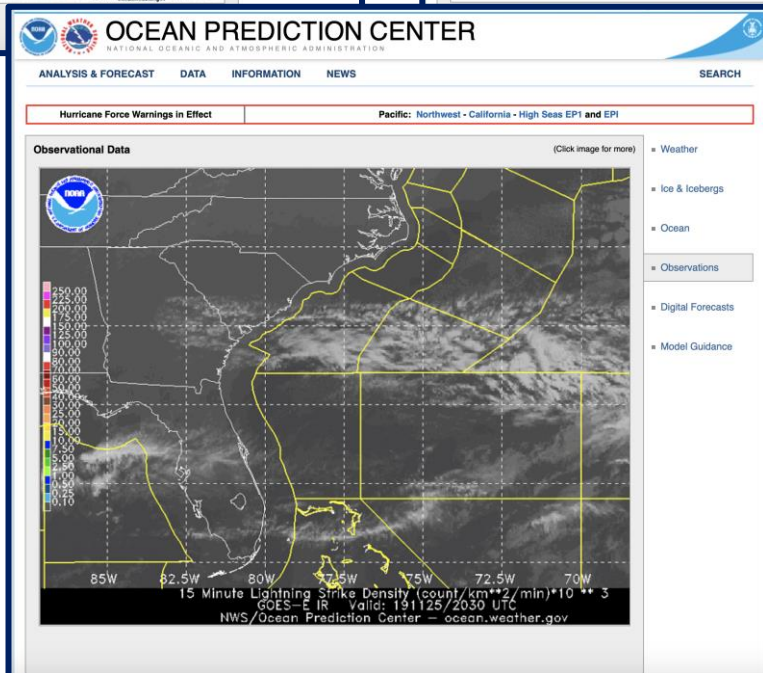
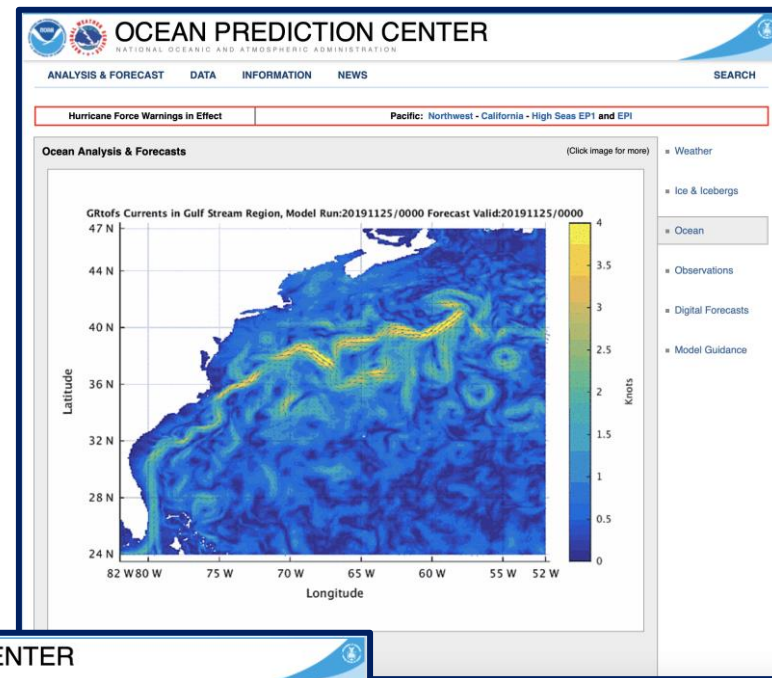
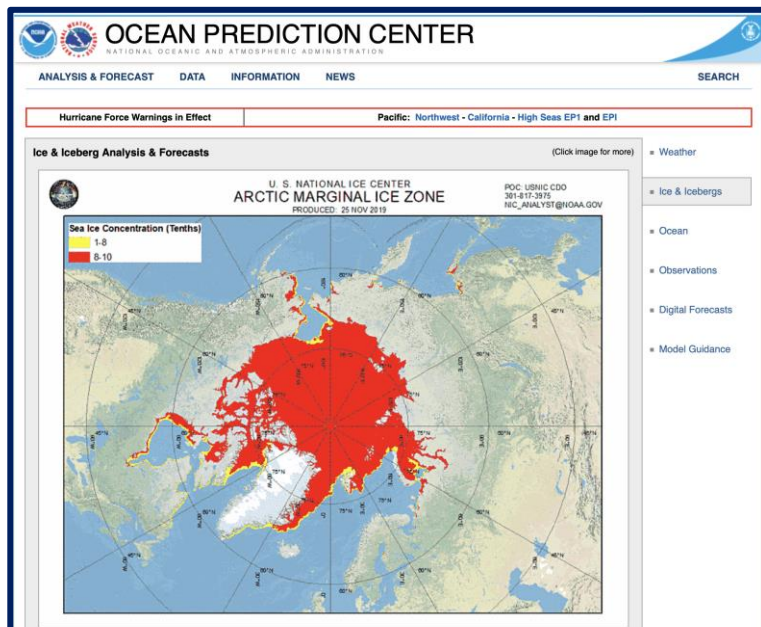
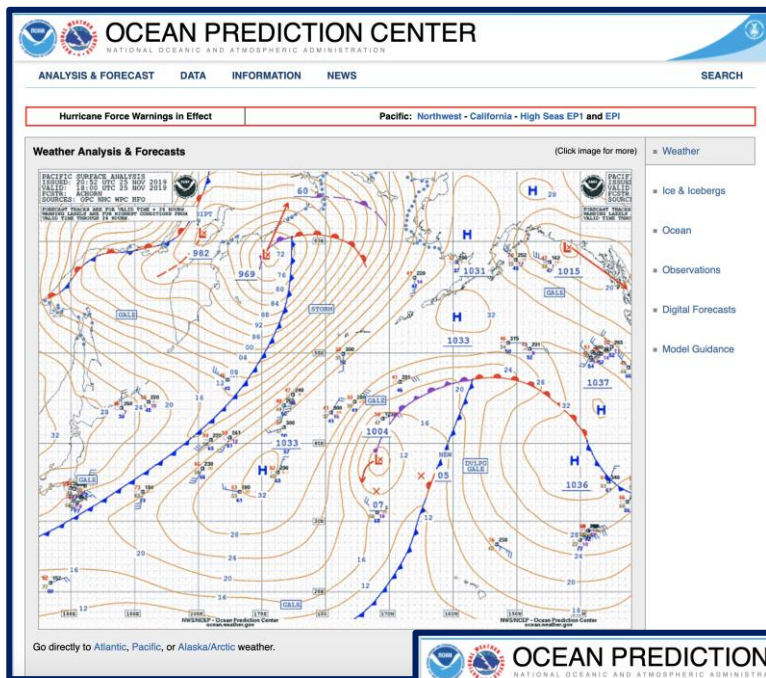
### Ocean Model Current Areas

The NCEP Global Real-Time Ocean Forecast System (Global RTOFS) data is based on the U.S. Navy implementation of Global HYCOM. Regional NCOM data is provided by the Naval Oceanographic Office (NAVO).

*(Mouseover and click the desired area to view the valid Global Ocean Model Currents 0-72 hour forecast data)*



# WEATHER FORECASTS from NOAA'S Ocean Prediction Center



# MARINE WEATHER FORECASTS FROM NOAA'S nowCOAST Mapping Portal

The screenshot displays the NOAA nowCOAST Mapping Portal interface. At the top, the browser address bar shows `nowcoast.noaa.gov/mariner.html`. The navigation menu includes links for Satellite database, SWOT Spotlight, Inside JPL, Models - EDS Viewer, OST, GRACE, SWOT, CCAR, Akiko images, Timecard, Listservs, Google Maps, NOAA, Aviso, CCS, JPL, News, Citation Machine, Margaret's, and Catalyst\_JH Libraries. The main header features the nowCOAST logo and the text "NOAA's Web Mapping Portal to Real-Time Coastal Observations, Forecasts, and Warnings".

The central map area shows a view of the North Atlantic and Pacific Oceans, with various weather data overlays. A "Station Model" legend is visible in the bottom right corner of the map area, detailing parameters such as Station ID, Cloud Cover, Sea-level Pressure, Air Temp, Horizontal Visibility, Dew Point, and Significant Wave Height. A "Time Control" bar at the bottom of the map area shows the current time as "Mon, Nov 25, 2019 1:50 pm (PST)".

The right sidebar contains a "Layer Menu" and a "Legend". The "Forecasts/Predictions" section includes "Weather & Marine Weather Forecasts", "Links to Marine Weather Forecasts" (with checkboxes for Beach/Surf Areas, Coastal Waters, Offshore Waters, High Seas, and Canadian Waters), "Gridded Forecasts" (with a dropdown for "Surface Wind Velocity (Barbs)"), "Tide Predictions", "Ocean/Estuary/Great Lakes Forecast Guidance", and "River Forecasts". The "Hazardous Conditions/Threats" section includes "Watches, Warnings & Advisories" (with checkboxes for Short-Duration Hazards and Long-Duration Hazards). The "Storm Track & Intensity Forecasts" section includes "Tropical Cyclones" (with a checkbox for Track Forecast & Observed Track). The "Observations" section includes "Stations, Buoys, & Ships" (with a checkbox for Surface Weather/Ocean Conditions) and "Links to Individual Observing Sites" (with checkboxes for Weather Stations and other sites).

At the bottom of the page, there is a "Viewer Settings" section with icons for settings, a star, and a refresh button. The footer includes the text "DOC | NOAA | NOS | OCS | CSDL | Website Satisfaction Survey" and "Web site owner: Office of Coast Survey | Privacy Policy".

[nowcoast.noaa.gov/mariner.html](http://nowcoast.noaa.gov/mariner.html)

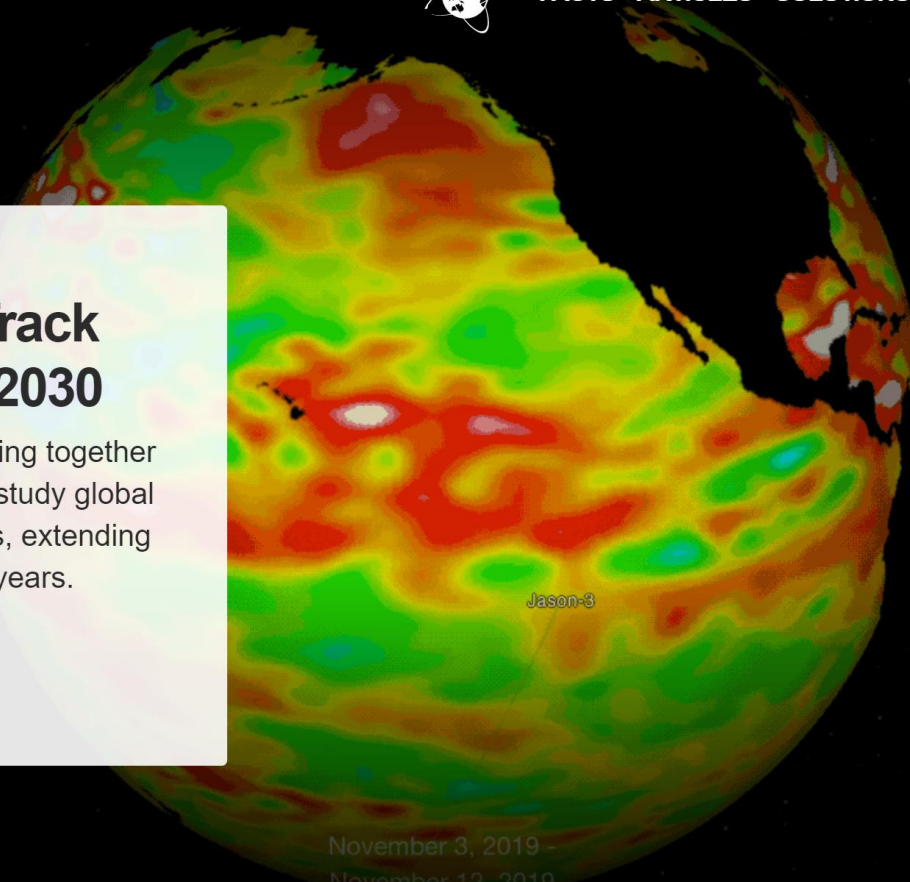


FEATURES

## New Mission to Track Rising Seas into 2030

The U.S. and Europe are working together on the first 10-year mission to study global warming's effect on the oceans, extending sea level records to nearly 40 years.

FULL STORY



Sun

Jason-3

November 3, 2019 -

November 12, 2019

Range: 11/6/2019 - 11/12/2019

CARBON DIOXIDE

↑ 412 parts per million

GLOBAL TEMPERATURE

↑ 1.9 °F since 1880

ARCTIC ICE MINIMUM

↓ 12.8 percent per decade

ICE SHEETS

↓ 413 Gigatonnes per year







**Jurgen Hinrichs AVH II**



**ALEXANDER**  
von HUMBOLDT II

GREEN SAILS / BLUE FLAG



# BLUE FLAG SCHEME

- Why Should A Tall Ship Join The Scheme?
- A Tall Ship Is Only Little Or Not Involved In Pollution!
- What About Others Destroying The World Climate?
- Paradigm Shift

# Blue Flag Scheme

What Is ALEXANDER von HUMBOLDT II Contribution?



- Certified Highest Level
- IMO, MarPol, SOPEP
- Waste & Garbage Temperature Controlled
- Organic / Inorganic

# BLUE FLAG SCHEME



- Water Processing (Osmose)
- 3 Chamber Biological Sewage Vacuum Toilet System
- Glass And Metal Shredder
- Non-Smoking Ship
- Marketing & Sales



# BLUE FLAG SCHEME

## CERTIFICATES

1000/112187/18

Date of Issue: 09.08.2018

Vessel name:  
**ALEXANDER VON HUMBOLDT II**  
IMO 9618446

**Statement of Technical Information  
Of Using Environmentally Acceptable  
With the Sterntube Seals of the caplin  
Under VGP 2013**

We confirm that it is technically infeasible to use Environmental A on Simplex Seals for the above mentioned vessel until the next refit or the better listed technique exists:

- It is technically infeasible to change the stem tube seal installed seal ring material is not recommended for the according to the SPP Marine material specification. This has to be done in dry dock.
- Viton Pood seal rings that have already been operated before EAL can be applied in the system. The vessel is in dry dock.

This statement is valid for five years until 08.08.2023 or next drydock long as the technical solution on board remains the same (as main conversion).

Please make sure to use solely original Simplex spare parts. Any other statement.

This letter should be kept on board the vessel together. It was generated without signature.

For further information please email [sgp2013@skf-marine.com](mailto:sgp2013@skf-marine.com)

SKF Marine GmbH

**SKF**

From: Peter Gabel, Juni 2018 bis 1.09.2019

DSST Deutsche Stiftung Sail Technology  
Alexander von Humboldt  
Colonnadenstraße 7  
27550 Bremerhaven  
DEUTSCHLAND

**LIEFERSCHEIN NR. L20180286**  
Vorgang / Auftrag: 5059 / A20180223  
Ihre Referenz: CMD 24 / Alexander von Humboldt II

**Lieferanschrift:**  
Transcoms Bahamas S.A.  
+34 97400709  
Cherchona de Jonghe  
Calle Realatlas Nr. 3  
Punta de Matanzas, 07015  
SPANIEN / SPAIN

Pos. Art.-Nr. / Beschreibung Menge ME

001 0000875807 1 Stk  
ELIGE ALARM eingeleitet auf Sppm  
TYPE: OMS24 CV  
S/N: 2008856, M2 S/N: 4011362  
Merkmale:  
- Adressierbare  
- Kleinteile für Umbau auf Druckme  
- Geräusche

1 Positionen) 0,02 kg Bauteil

Kommissioniert durch:  
Packstückanzahl:

Ausgeliefert durch:  
Datum:  
Waren erhalten:

1000/112187/18

Datum: 09.08.2018  
Telefon-Nr.: 1800 8000  
Tel. 0391 811 2938 Fax: 0391 811 2939  
E-Mail: [skf@skf.com](mailto:skf@skf.com) [skf@skf.com](mailto:skf@skf.com)

Angemeldet: 09.08.2018  
09:00:00 - 08.09.2018  
St.Nr.: 078 115 0472  
Geschäftsbereich: 010 000

**Ocean Clean Water Treatment**

**KOPIE**

Datum: 12.09.  
Lieferdatum: 12.09.  
Versandort:  
Frankfurt EXW f

Bei zuständiger Verkäufe  
Name: Kage Lu  
Telefonnr.: +49 381  
Fax-Nr.: +49 381  
E-Mail: k.laman

To whom it may concern

**Jastram**  
ADVANCING PERFORMANCE  
EMDEPARKEN 2. AVG. 2018

Regarding VGP requirement for Jastram Tunnel Thruster

To whom it may concern,

This statement is intended regarding the use of Environmentally Acceptable Lubricants (EAL) on Jastram Tunnel Thrusters and not listed in the US Environmental Protection Agency's Vessel General Permit (VGP).

The statement is valid for Jastram Tunnel Thruster:

Vessel: Alexander von Humboldt II  
IMO: 9618446  
Type: Sailing Vessel  
SPP: 180

Integrity: The technically infeasible to use Environmentally Acceptable Lubricant in Jastram Tunnel Thruster due to the following reasons:

- SMA seals must be replaced against short seals compatible with HAI
- Lubrication oil needs to be substituted to approved EAL oil
- Hydrolube filling up EAL oil Clear must be flushed
- Water separator must be installed in the lubrication system

According to the intention of the US Environmental Protection Agency in the Vessel General Permit (VGP) (40 CFR 101.10), the use of EAL is approved for use in a great extent, provided that the manufacturer specifies for the replacement of HAI and use of EAL must not cause any other ship damage.

Jastram's company policy is to design their products highly environmental friendly. Together with our suppliers and EAL manufacturers we are working on solutions to improve the use of Environmentally Acceptable Lubricant in Jastram Tunnel Thrusters.

Jastram GmbH & Co. KG  
Signature and  
Managing Director



We Sail Clean

# BLUE FLAG SCHEME

**THANK YOU**



