

New Web Services for NDSF Data/Metadata

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Lamont-Doherty Earth Observatory

EarthCube Integrative Activity

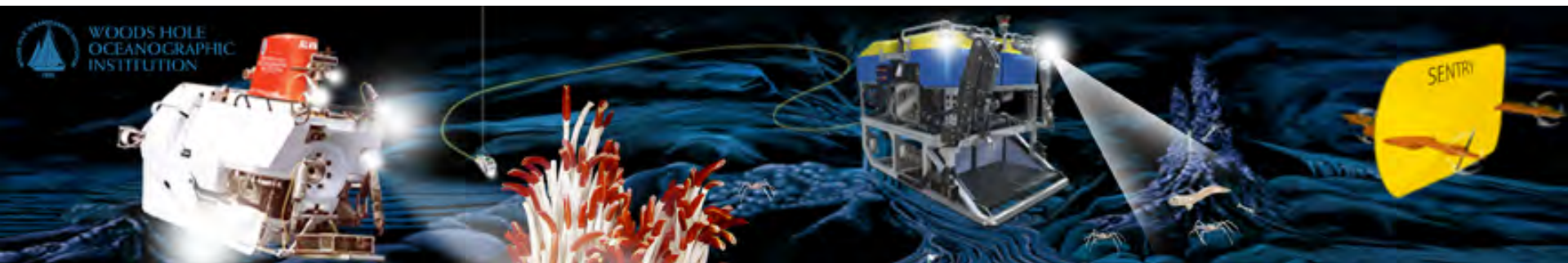
- *Interdisciplinary Earth Data Alliance as a Model for Integrating EarthCube Technology Resources and Engaging the Broad Community*
 - Funded: Summer 2015
 - Partner Workshop: Fall 2015
- NDSF Components
 - Broaden access to data & metadata
 - Facilitate data flow to distributed data repositories



EARTH CUBE

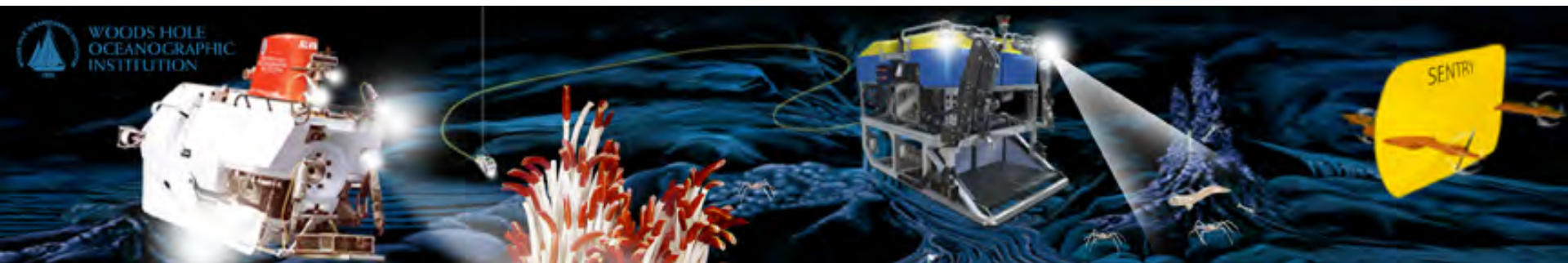


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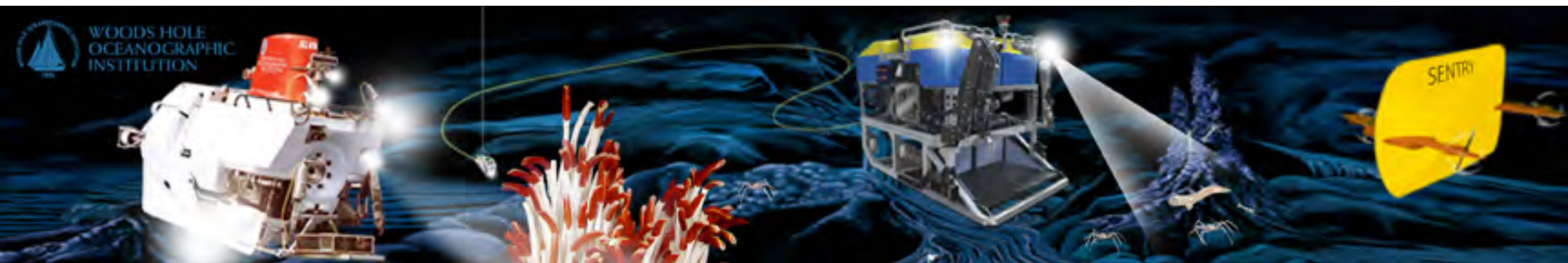
Project Goals

- Standardize vehicle metadata
 - Ensure needs of stakeholders are met
- Improve access to NDSF data and metadata
- Enable cross-vehicle searches
 - Dive metadata
 - Virtual Van & Frame-Grabber
- Inform NDSF metadata practices



Web Services

- Queryable Service to return data/metadata
- Standards-compliant (incl. GeoWS)
- Several output formats (ASCII, SHP, GeoJSON, XML)
- Enable Broad access
 - Programmatic Access
 - Simple User Access
 - Web Service-Driven User Interfaces (UIs)



Web Service Documentation

NDSF Framegrab Web Service

Description URL Builder

See Description tab for more information about service.

tools

GET services/framegrabs.php

Implementation Notes

All the filters are AND-ed together. In other words, only framegrabs ma

Parameters

Parameter	Value
minlon	
maxlon	
minlat	
maxlat	
starttime	
endtime	
cruise_id	
vehicle_name	
dive_name	
feature_name	
event_text	
format	xml (default) ▾
download	0 (default) ▾

Error Status Codes

HTTP Status Code	Reason
200	Data returned
400	Invalid parameter values

Try it out!

NDSF Dive Metadata Web Service

Description URL Builder

Description

The NDSF Dive Metadata Service provides access to information about dives by various NDSF vehicles, including Jason II, Alvin, ABE, and le Metadata can be returned in CSV, GML, GeoJSON, or Shapefile formats. This is a [GeoWS](#) compliant service.

Usage

Image Request Base URL

http://service.iedadata.org/ndsf/dive_metadata?

Examples

http://service.iedadata.org/ndsf/dive_metadata?minlon=-45&minlat=-90&maxlon=45&maxlat=90&vehicle=Alvin

http://service.iedadata.org/ndsf/dive_metadata?vehicle=Jason2&format=geojson

Query Parameters

name	example	description
minlon	-10.0	The easternmost longitude.
maxlon	10.0	The westernmost longitude.
minlat	-10.0	The southernmost latitude.
maxlat	10.0	The northernmost latitude.
starttime	1980-10-29	Include dives only after this time.
endtime	2015-11-15	Include dives only before this time.
cruise_id	AT11-06	Include dives only from this cruise.
vehicle	Alvin	Include dives by this vehicle only.
dive_id	J2-093	Retrieve the metadata for a specific dive with the given ID.
feature	transect	Search for dives exploring a feature containing the given string.
format	geojson	Return results in this format. Valid formats are csv, xml, geojson, and shapezip.
download	false	Download data instead of displaying in the browser.

List

Map

Vehicle

All

Cruise ID

All

Feature (search string)

e.g. Biotransect

Minimum Longitude

Minimum Latitude

Maximum Longitude

Maximum Latitude

Start Date

e.g. 1980-01-01

End Date

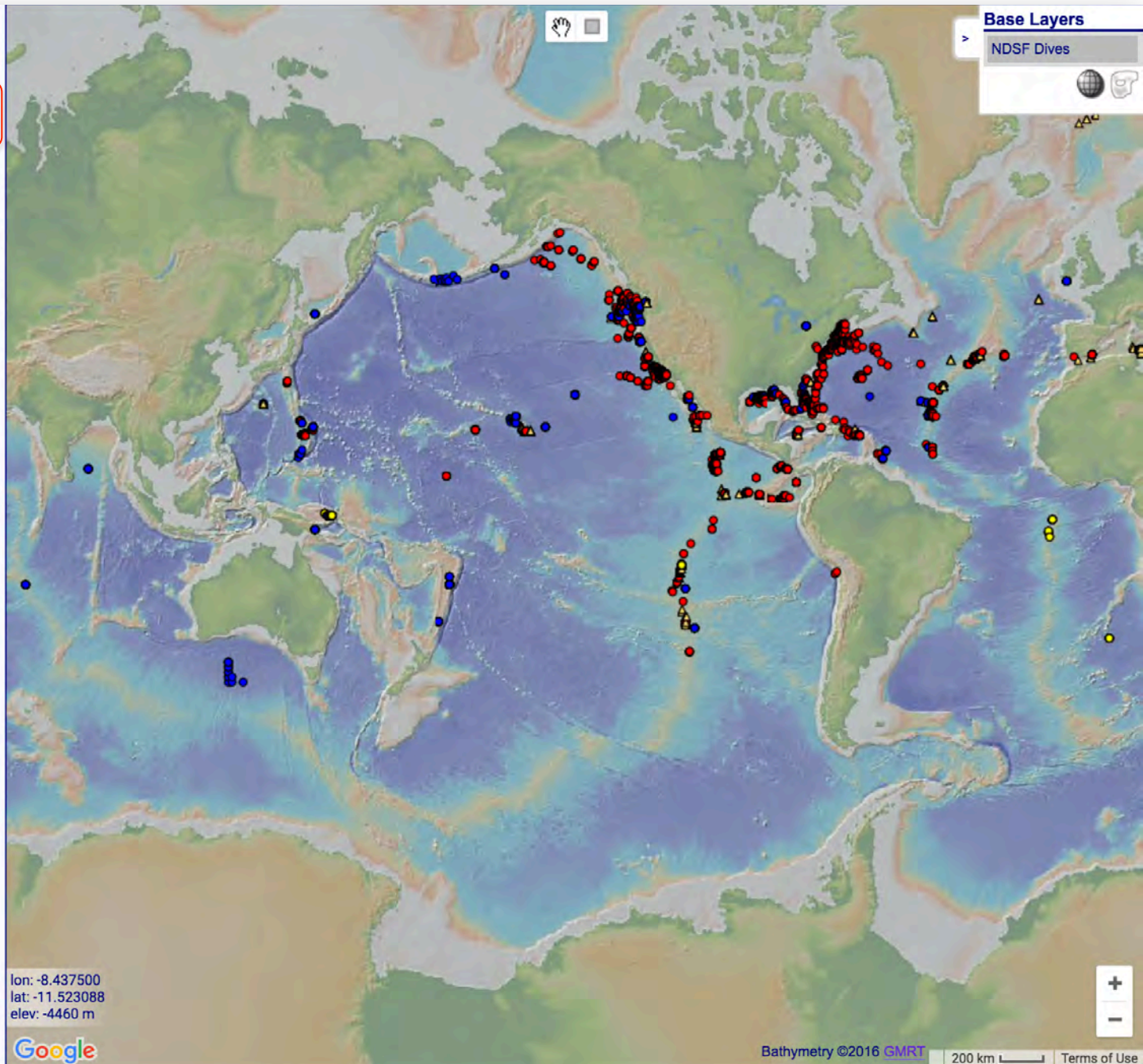
e.g. 2015-12-31

Search

Download Results

as:

GeoJSON



List Map

Vehicle

Cruise ID

Feature (search string)

Minimum Longitude

Minimum Latitude

Maximum Longitude

Maximum Latitude

Start Date

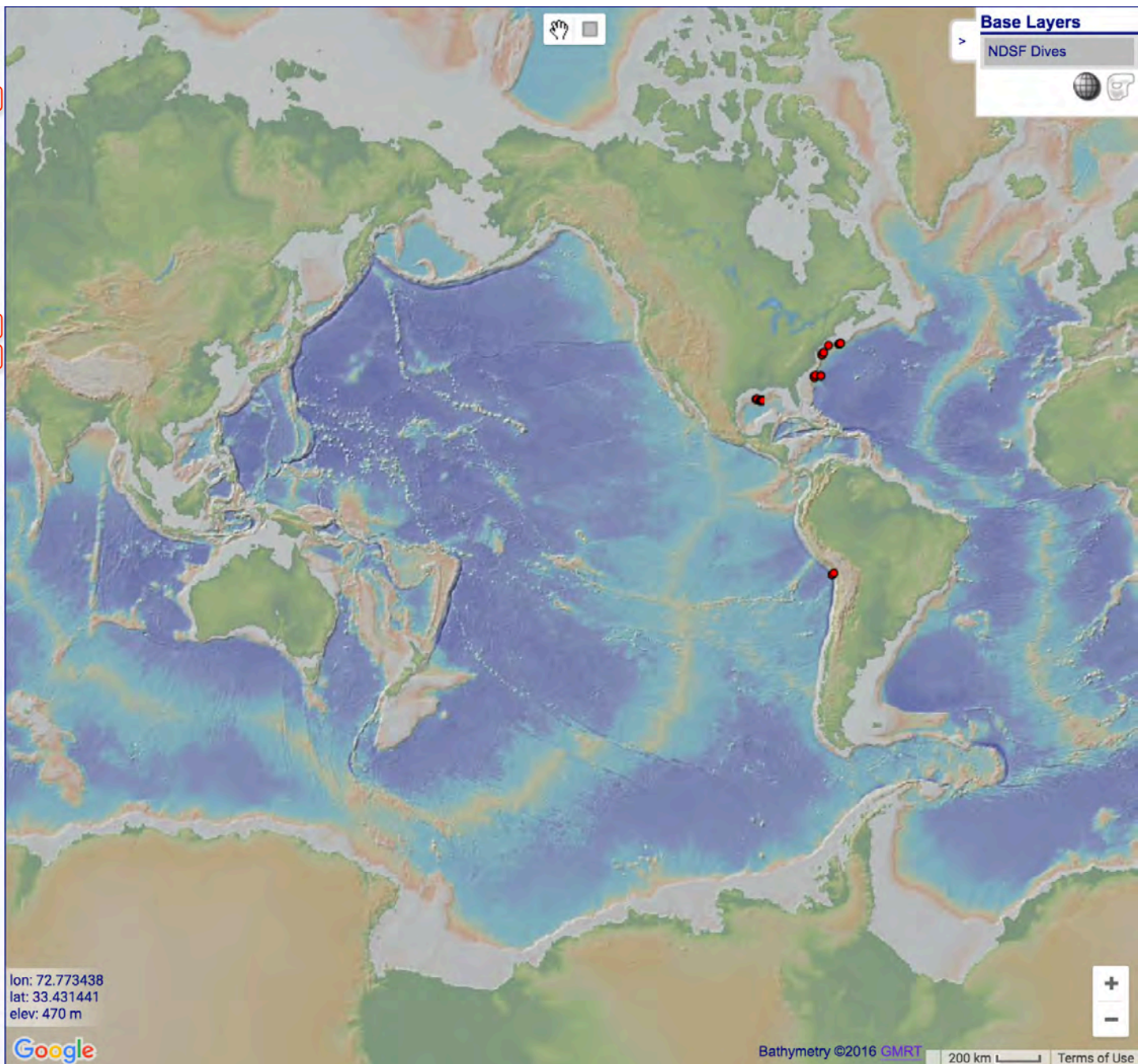
End Date

Search

Download Results as:

[Read about the](#)

[NDSF Dive Metadata Web Service](#)



List

Map

Vehicle

All

Cruise ID

All

Feature (search string)

e.g. Biotransect

Minimum Longitude

-109.3359

Minimum Latitude

5.2660

Maximum Longitude

-99.6680

Maximum Latitude

16.1303

Start Date

e.g. 1980-01-01

End Date

e.g. 2015-12-31

Search

Download Results

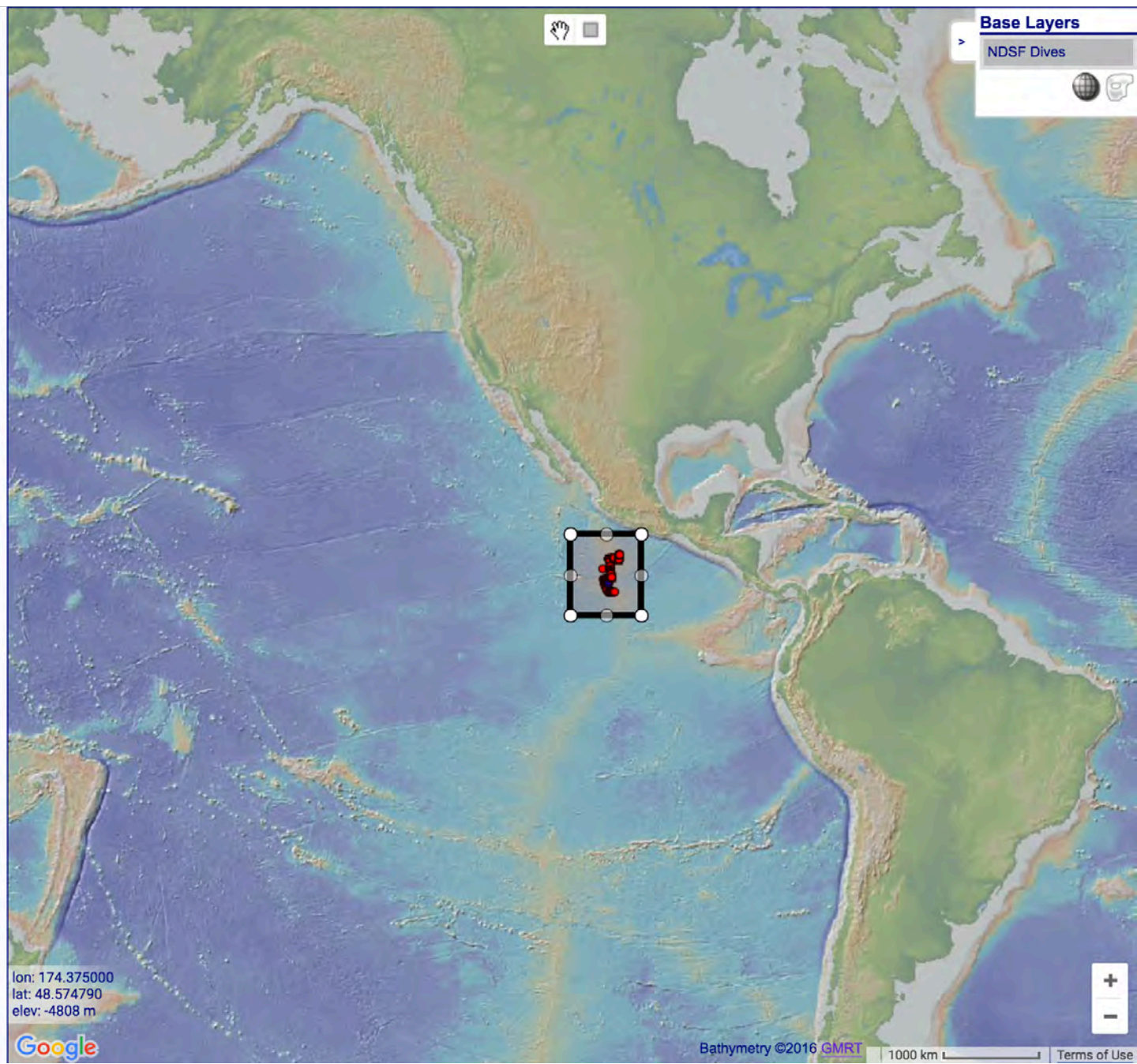
as:

✓ GeoJSON

GML

CSV

Shapefile (zip)



[Read about the NDSF Dive Metadata Web Service](#)

List Map

Vehicle All

Cruise ID

Feature (sea

Minimum Lo

Minimum La

Maximum Lo

Maximum La

Start Date

End Date

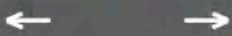
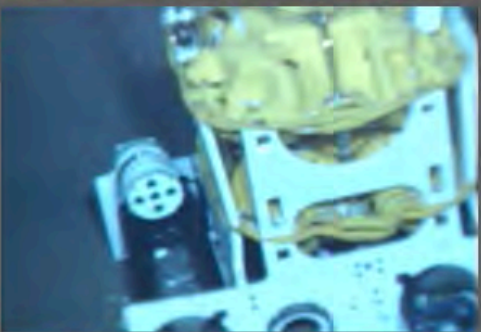
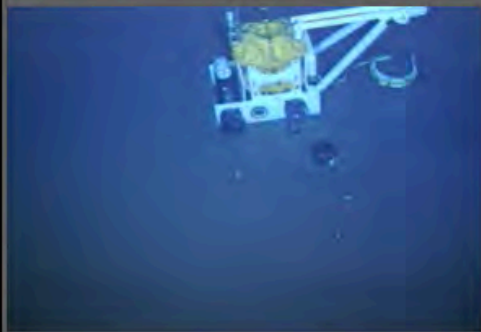
Search

Download Re

JASON II Dive J2-317

KM0720

Alt= 25.2 010 Delta= 20
J2A=2.8 207 J2D=5210



Base Layers

NDSF Dives

Base Layers

Divetracks

lon: -149.911880
lat: 15.614440
elev: -5299 m

Google Bathymetry ©2016 GMRT 5 km Terms of Use

Location: Hawaiian Islands Seafloor Depth: 5212.89m

Time (UTC)	2007/11/03 11:53:21
Event Text	TARGET OBS51 TXT MORE VIEWS OF PKG (SCI1)
Event Type	TGT
DAQ Type	EVT

Position	149.7740946°W 15.7214517°N (JAS2)
Local XY	990.26m (X), 529.46m (Y)
Roll	0.6°
Pitch	-6.4°
Heading	206.76°
Vehicle Depth	5210.08m
Altitude	2.81m
Local Origin	

[Read about the NDSF Framegrab Web Service](#)

Vehicle:
Cruise ID:
Dive Name:
Feature (search s
Event Text:
West:
South
Start Date:

Search
Download Results
View in photobrows

Result Count: 97

[View in
Photobrowser](#)

[View](#)

[View](#)

[View](#)

[View](#)

[View](#)

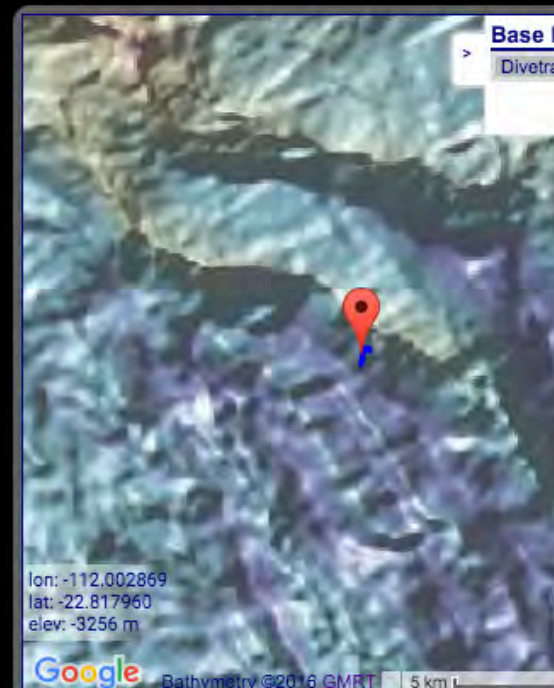
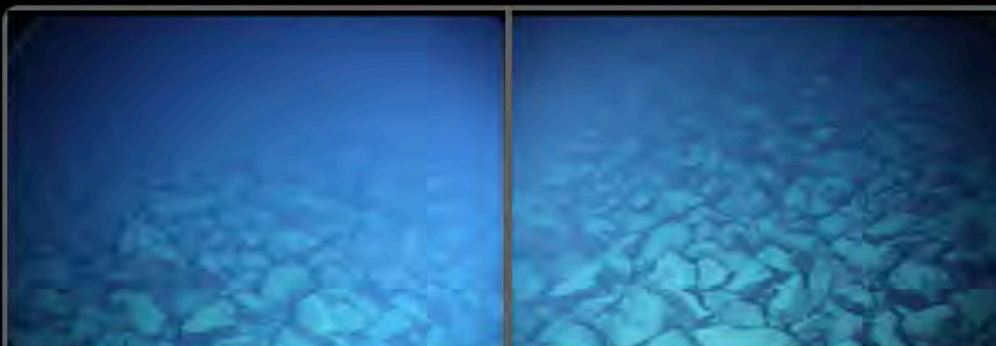


JASON II

ALVIN Dive 4075

Pito Deep SEPR - Started dive n 4100M and transected Up Slope samplings Dyke and general scarp rock.

AT11-23 (Pitodee



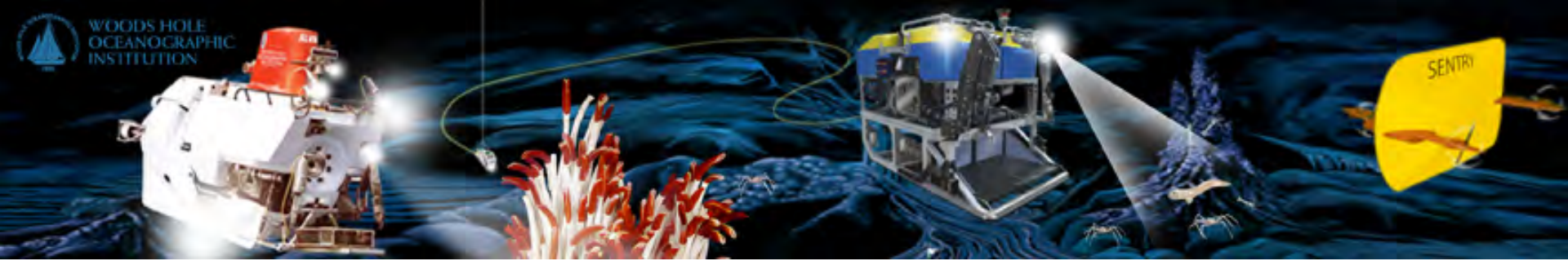
Location: Pito Deep - Sepr Seafloor Depth:

Time (UTC)	2005/02/11 17:05:32
Event Text	
Event Type	
DAQ Type	ASNAP

Position	112.07124009°W 22.88117992°S (RNV.ALV.LBL)
Original Position	112.07107°W 22.881511°S (PWHANA)
Local XY	2950.03m (X), 5775.36m (Y)
Original Local XY	2967.457m (X), 5738.658m (Y)
Roll	0.804°
Pitch	-4.807°
Heading	19.91°
Vehicle Depth	4116.693m
Altitude	2.8m
Local Origin	
Original Nav Source	PWHANA

[Read about the NDSF Framegrab Web Service](#)

[Read about](#)



Come see our Poster!

Wednesday morning: IN31D-1779

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