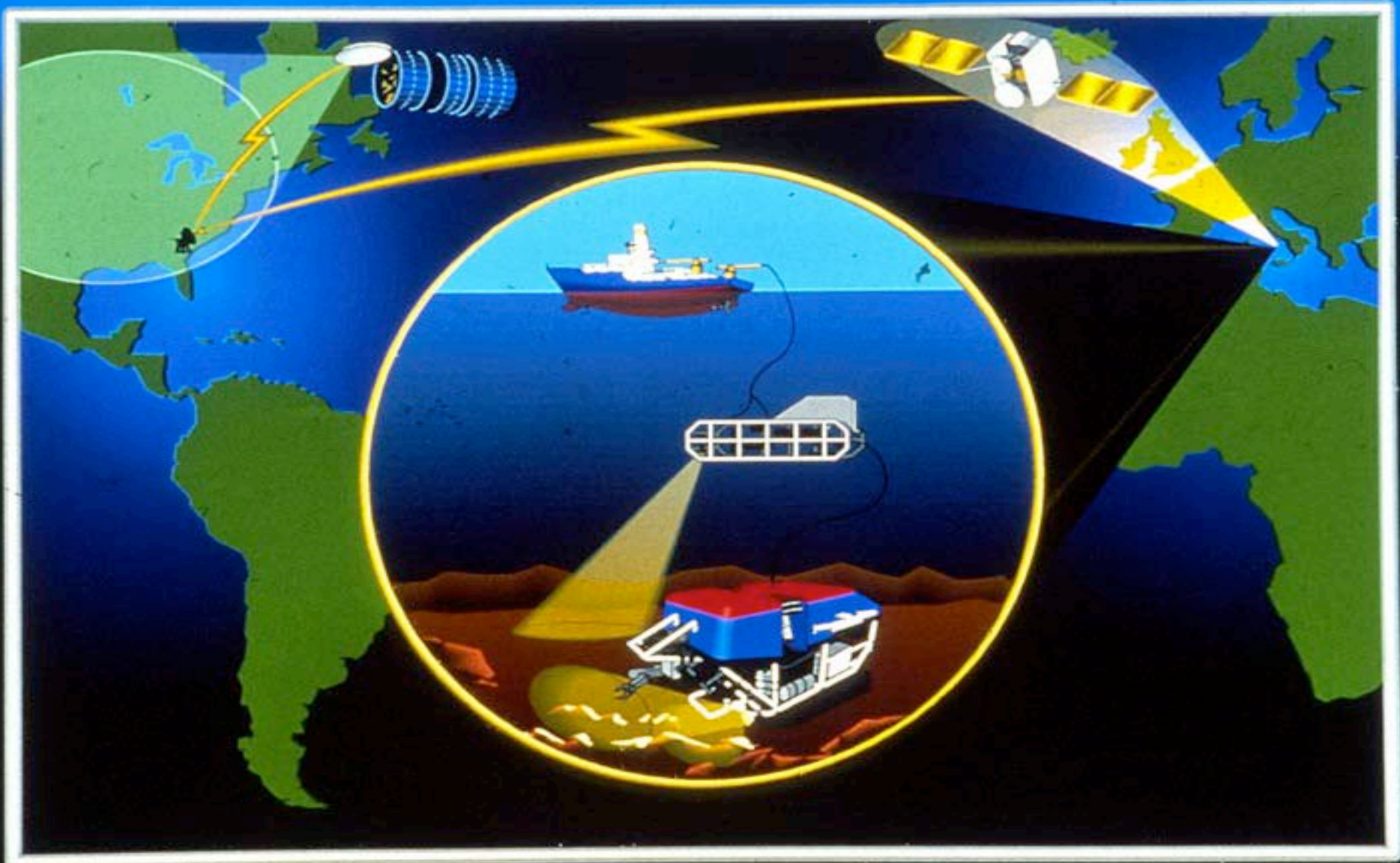


1981



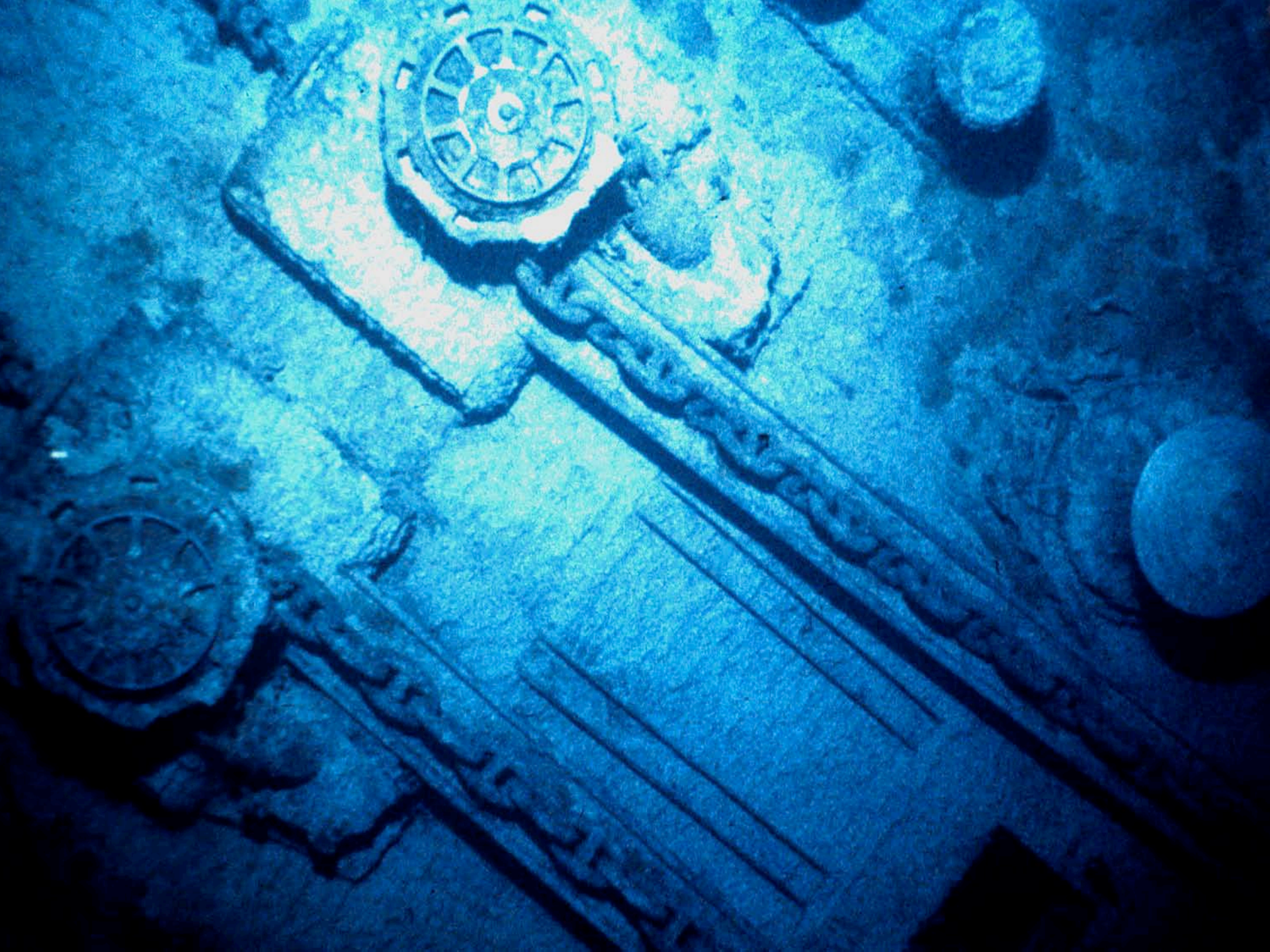


# 1982 – Deep Submergence Lab/WHOI



1985





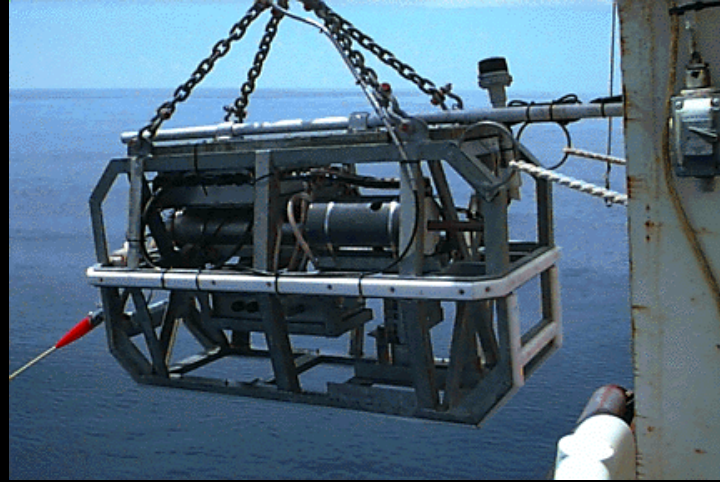
1986



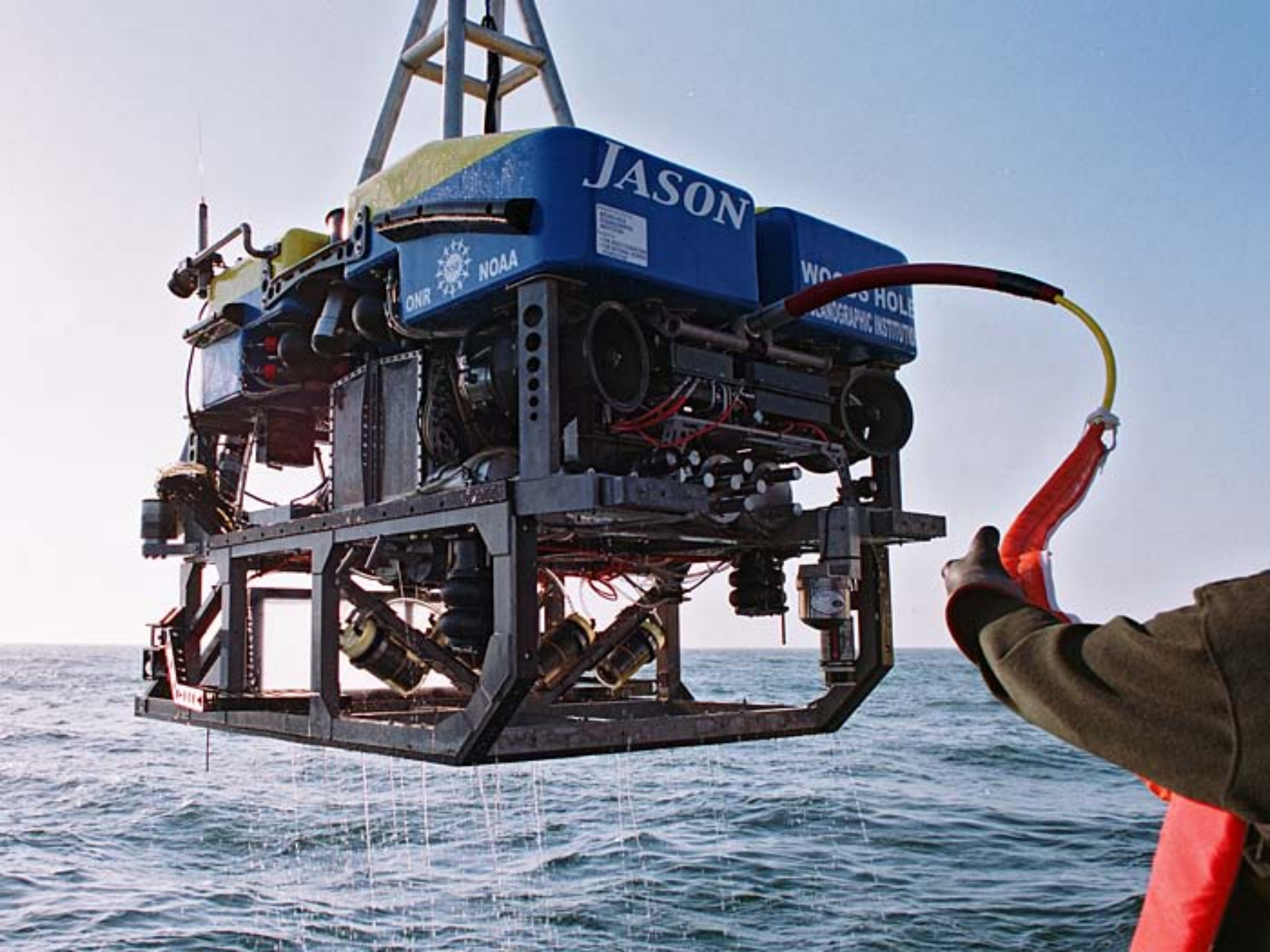


19  
15  
40

# 1988







# 1989









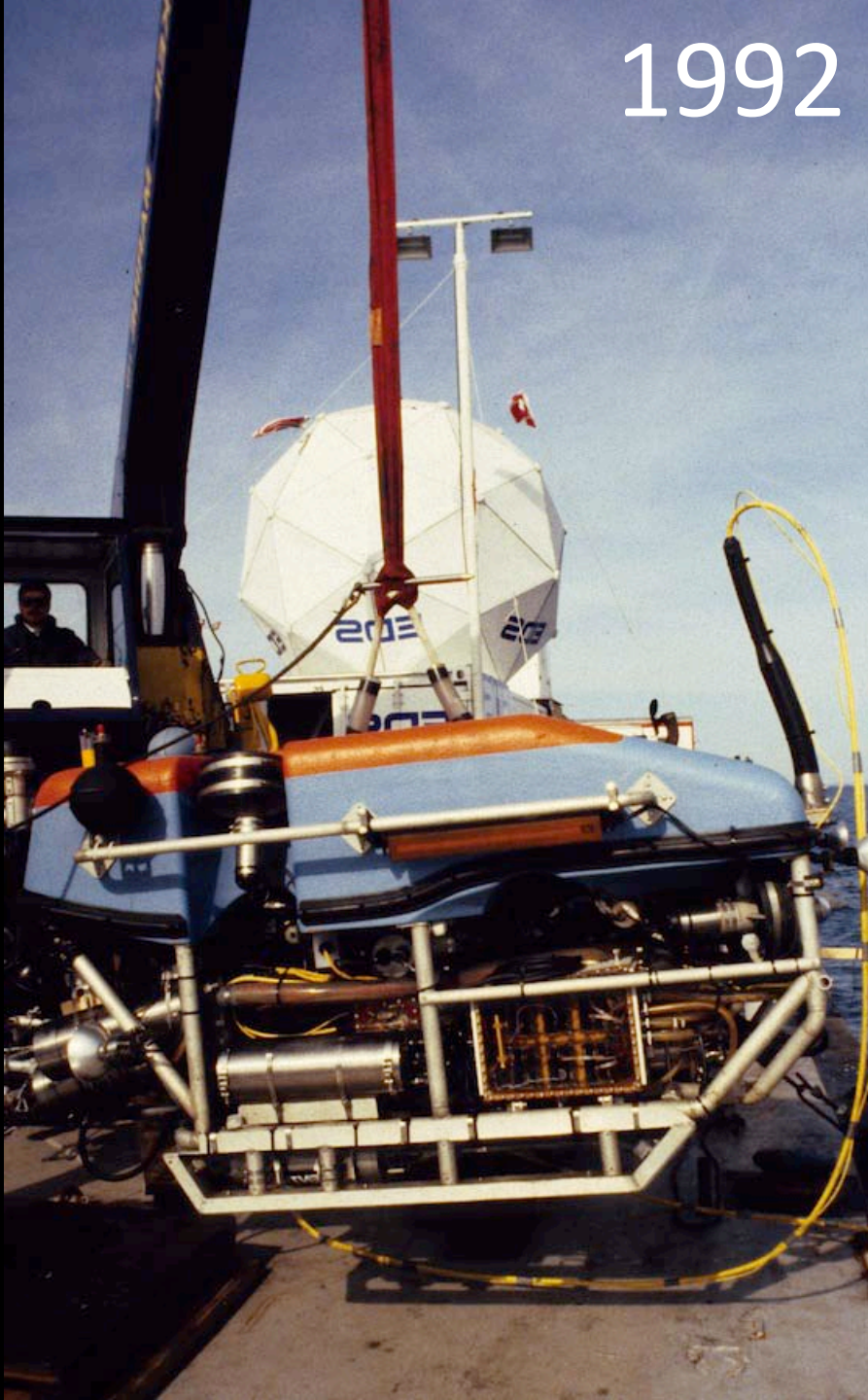


NATIONAL  
GEOGRAPHIC  
SOCIETY

JACKSON V. BELIZE 1994



1992





1992





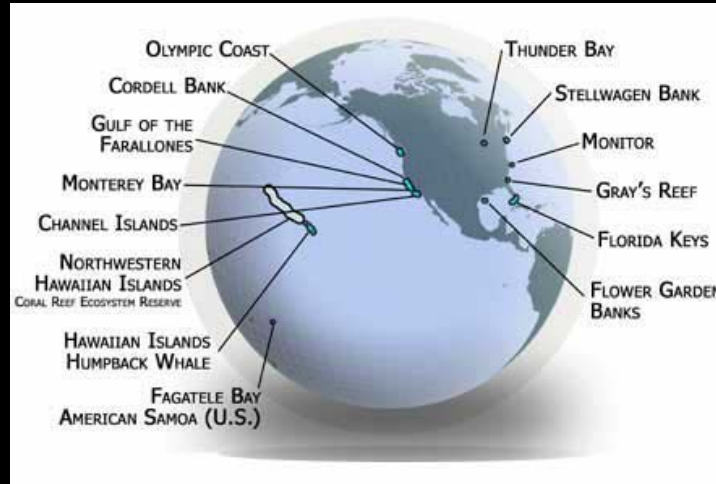
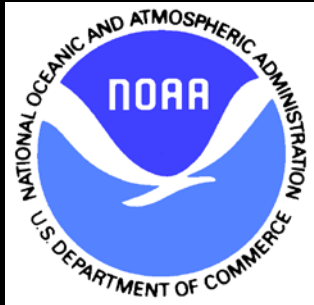
Internet2 is a not-for-profit advanced networking consortium comprising more than 200 U.S. universities in cooperation with 70 leading corporations, 45 government agencies, laboratories and other institutions of higher learning as well as over 50 international partner organizations.

[www.internet2.edu](http://www.internet2.edu)

1996 -Network was with Abilene, now upgrade with Level 3 Communications



# 1997-NOAA'S NATIONAL MARINE SANCTUARY PROGRAM



Kip Evans



Monitor Collection, NOAA





**ocean**  
EXPLORATION CENTER  
Presented by  
United Technologies

NOW  
SHOWING  
4-D THEATER  
TITANIC  
4D

TITANIC  
Journey  
to the depths  
of history

**TITANIC**  
12,450 FT BELOW

↑  
**4D THEATER**

**TITANIC**  
12,450 FT BELOW  
Presented by  
United Technologies

# FLOWER GARDEN BANKS

USS  
MONITOR





**DEPTH:**  
56 / ft

PRESSURE  
2 856 p/in

PAD -12%  
ELE + 360

OXYGEN  
85 %

Speed 2.8 kts

Latitude 125  
Longitude 36.5

Temperature 65 F







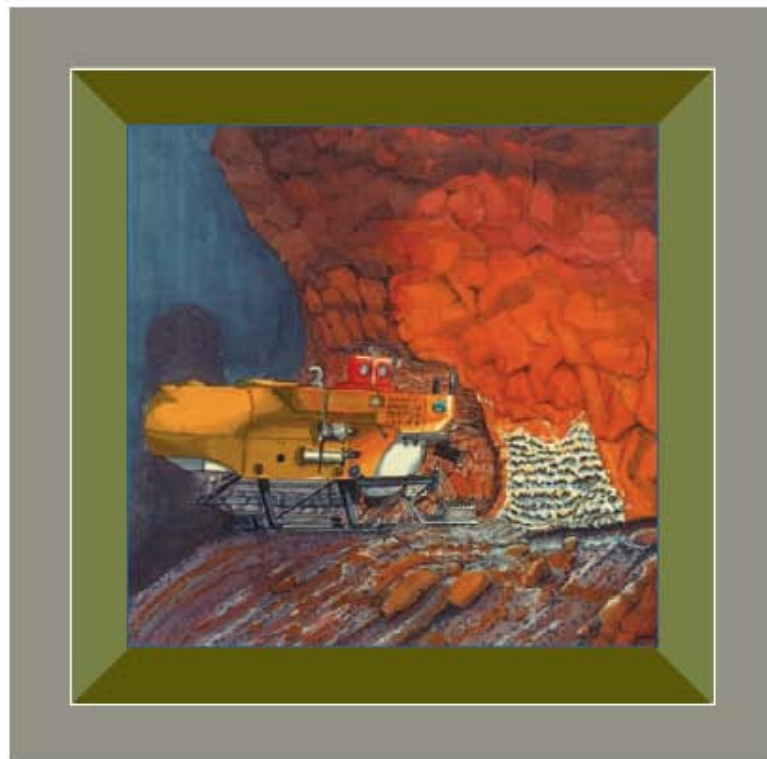
2000



# DISCOVERING

EARTH'S FINAL FRONTIER:

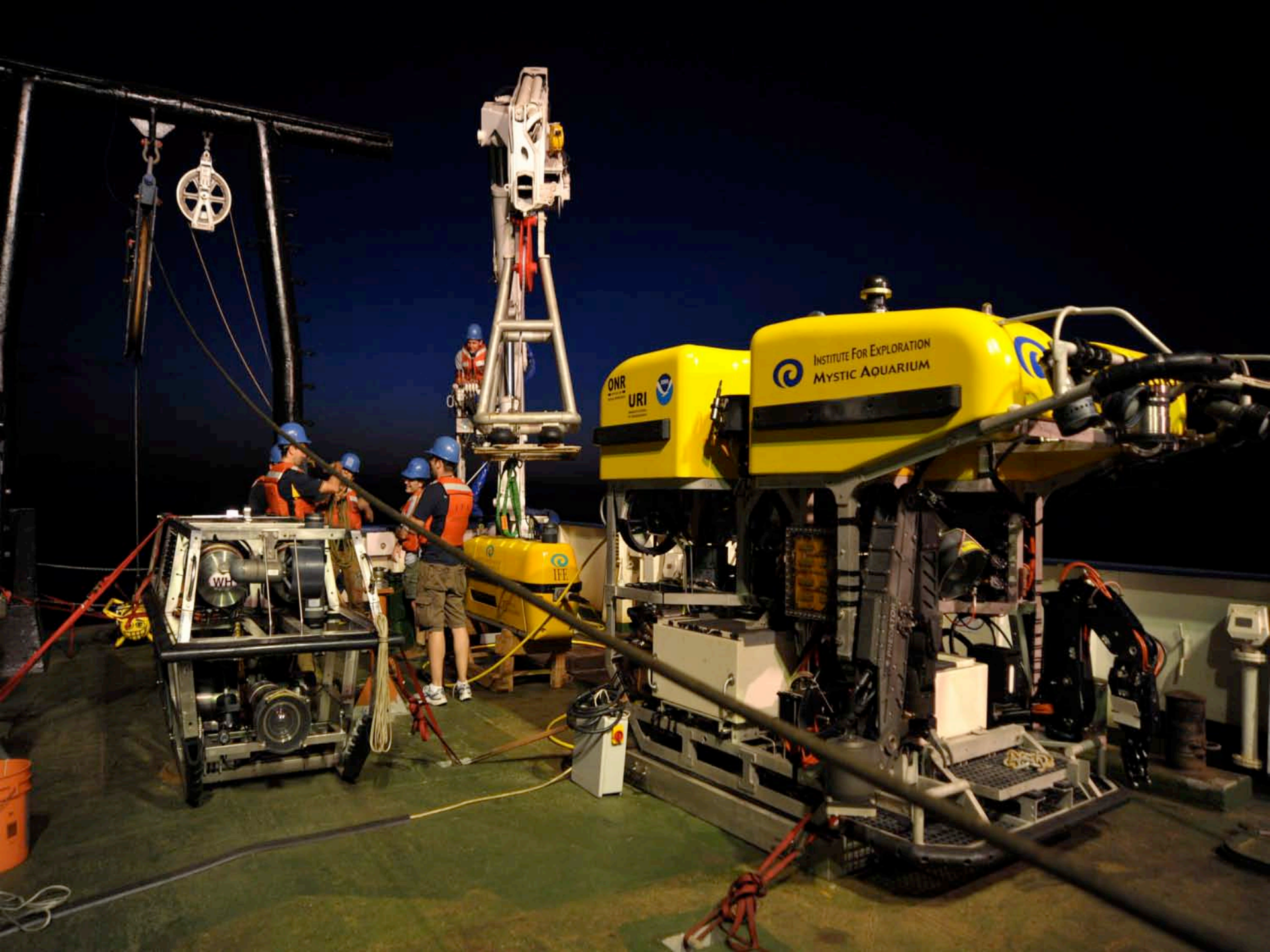
A U.S. STRATEGY FOR OCEAN EXPLORATION

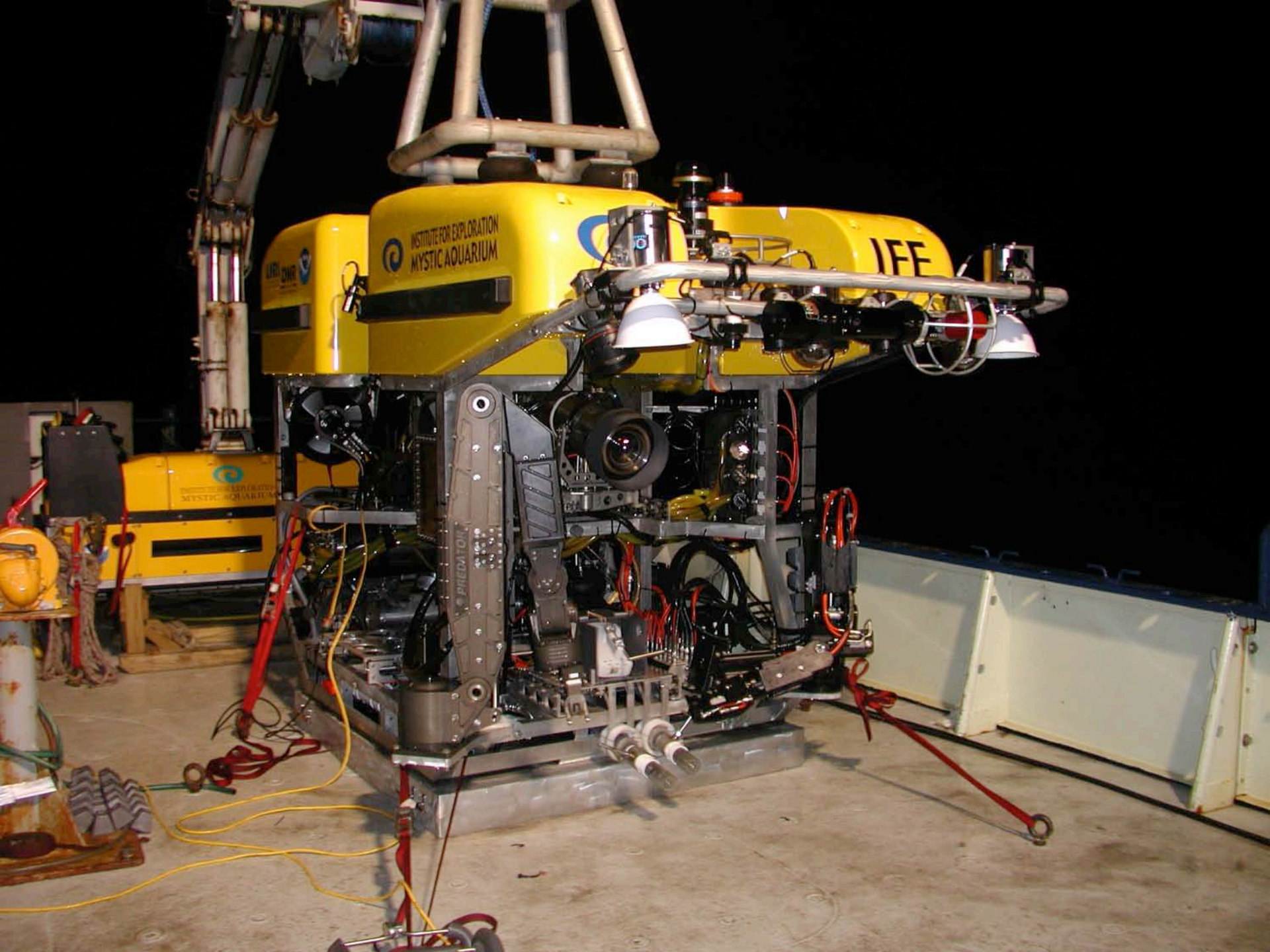


*The Report of the President's Panel for Ocean Exploration*

2004





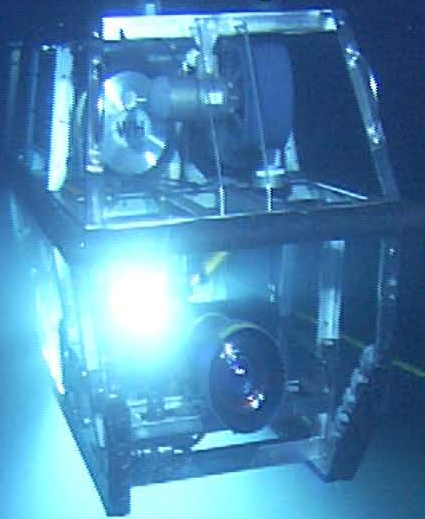


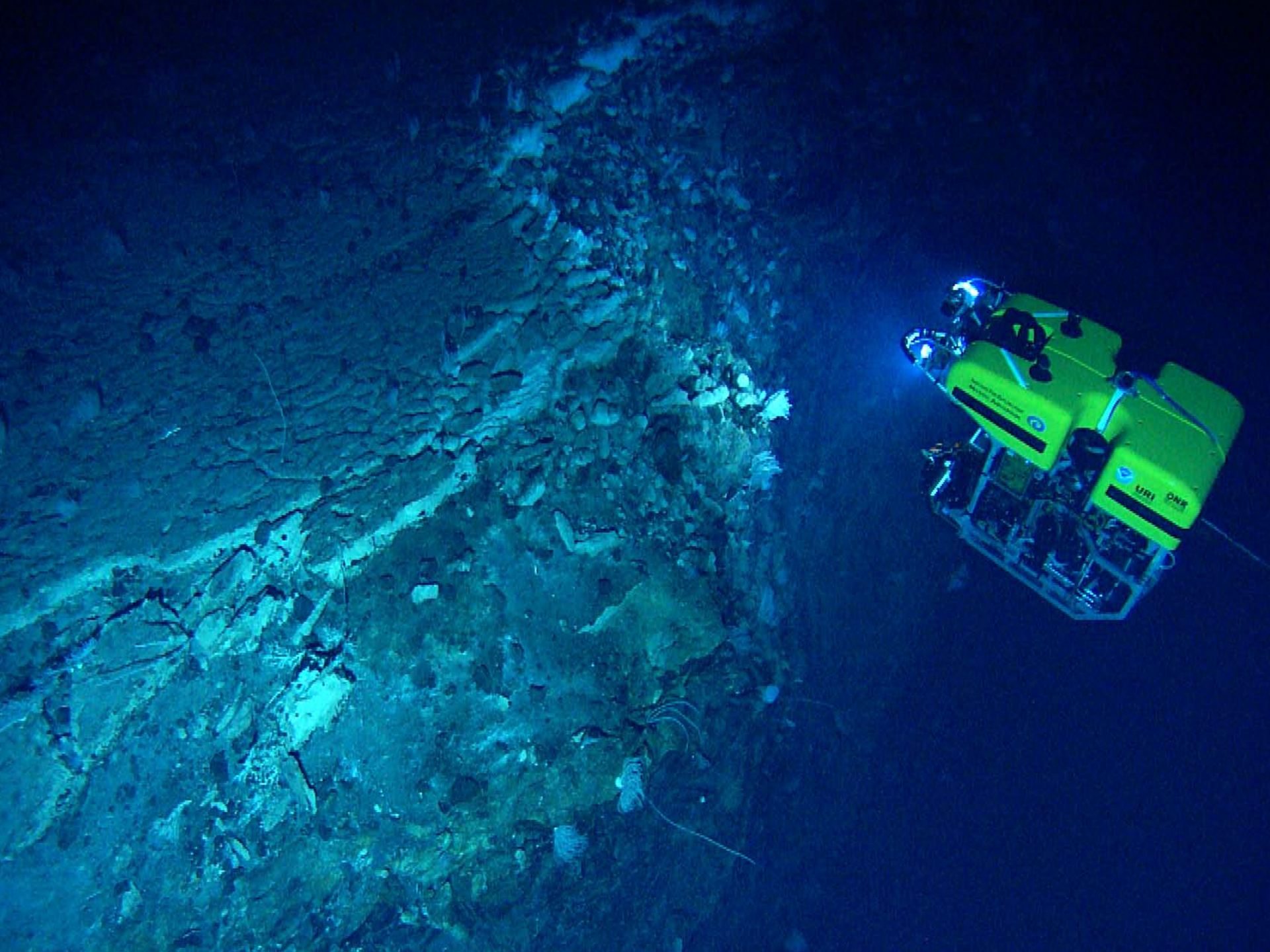
INSTITUTE FOR EXPLORATION  
MYSTIC AQUARIUM

IFF

PREDATOR











FEX194000

GREENLEE







2005-2008











2009



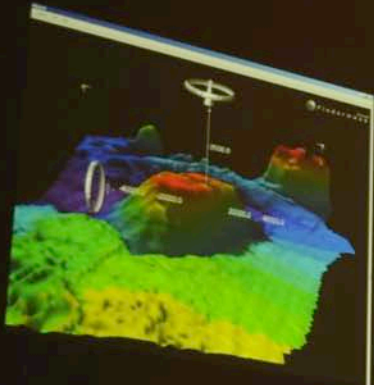


OCEAN SCIENCE & EXPLORATION CENTER  
AND PELL MARINE SCIENCE LECTURE HALL



CENTER FOR  
OCEAN EXPLORATION





E/V  
NAUTILUS

13:46:09

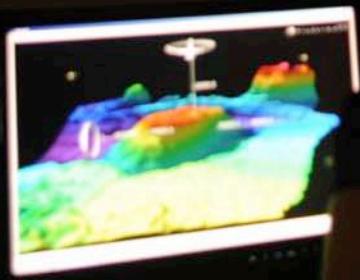
NAUTILUS

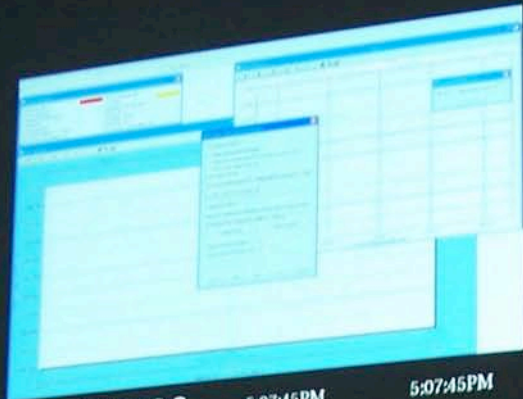
10:46:09

UTC

06:46:09

EDT





OKEANOS  
EXPLORER

5:07:45PM  
LOCAL TIME

5:07:45PM  
ZULU



5:07:45PM  
LOCAL TIME



ENDEAVOR



5:07:45PM

ZULU



5:07:45PM  
LOCAL TIME



NAUTILUS



5:07:45PM

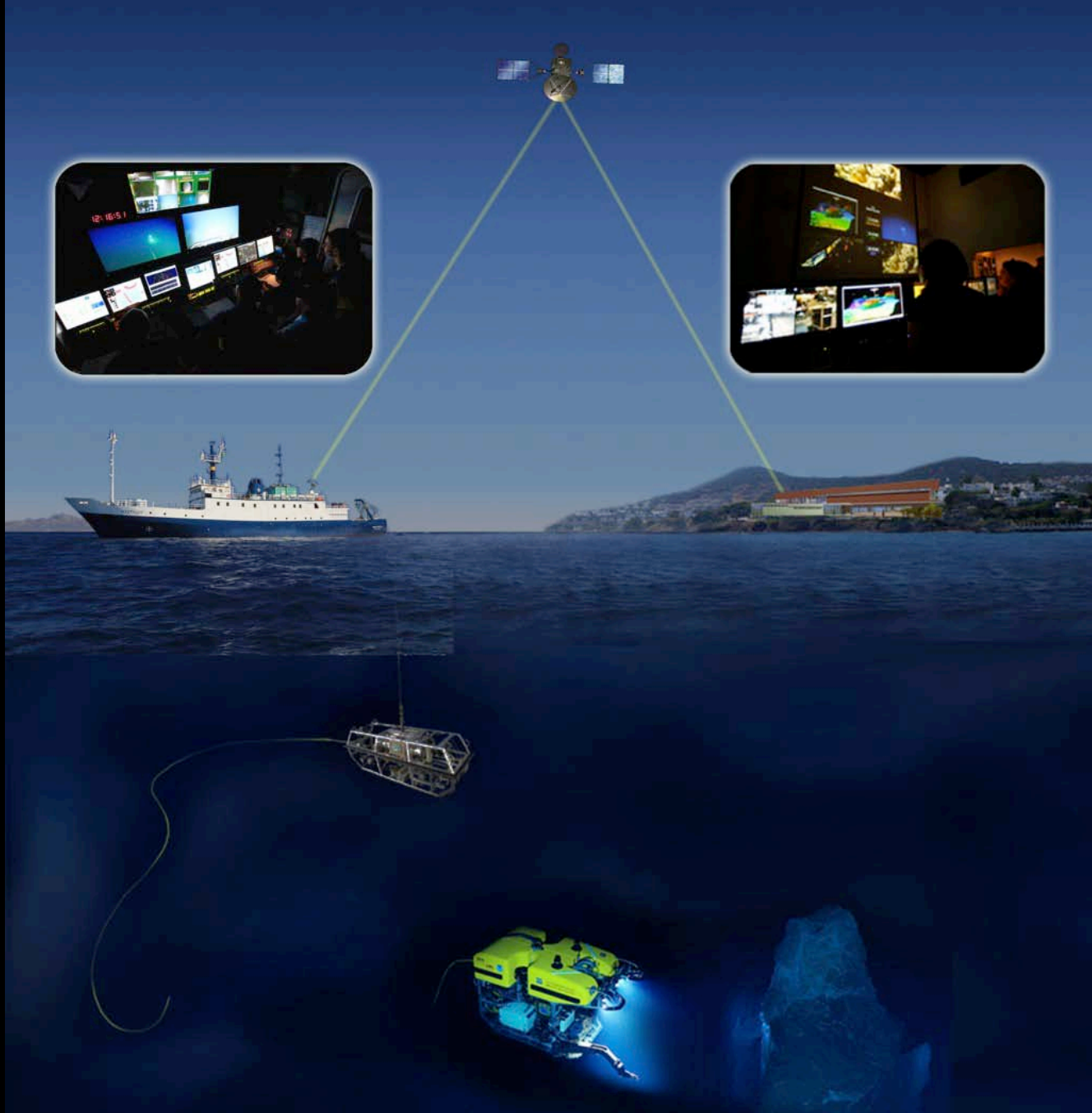
ZULU



GSO

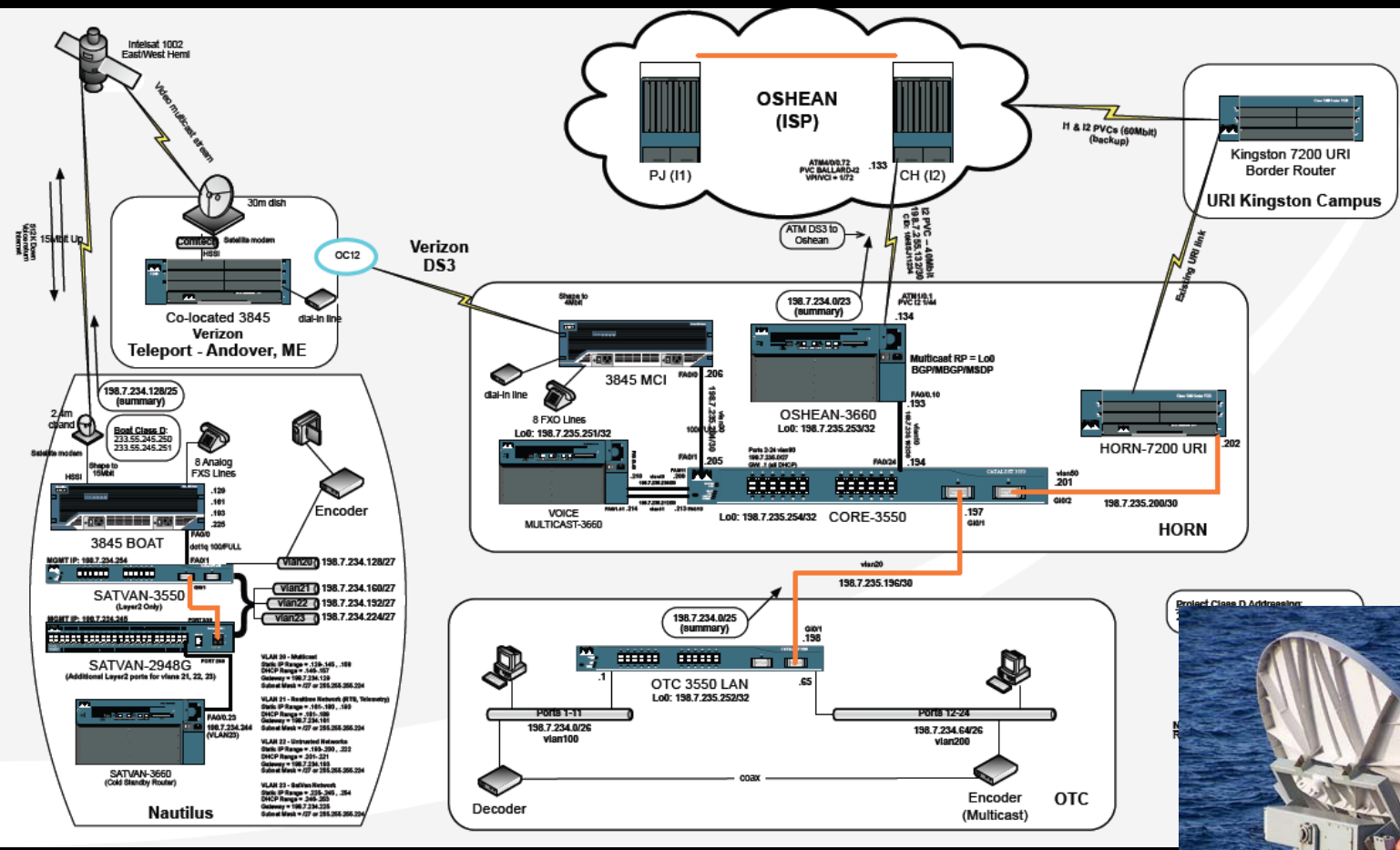


ISC PRODUCTION CONTROL ROOM

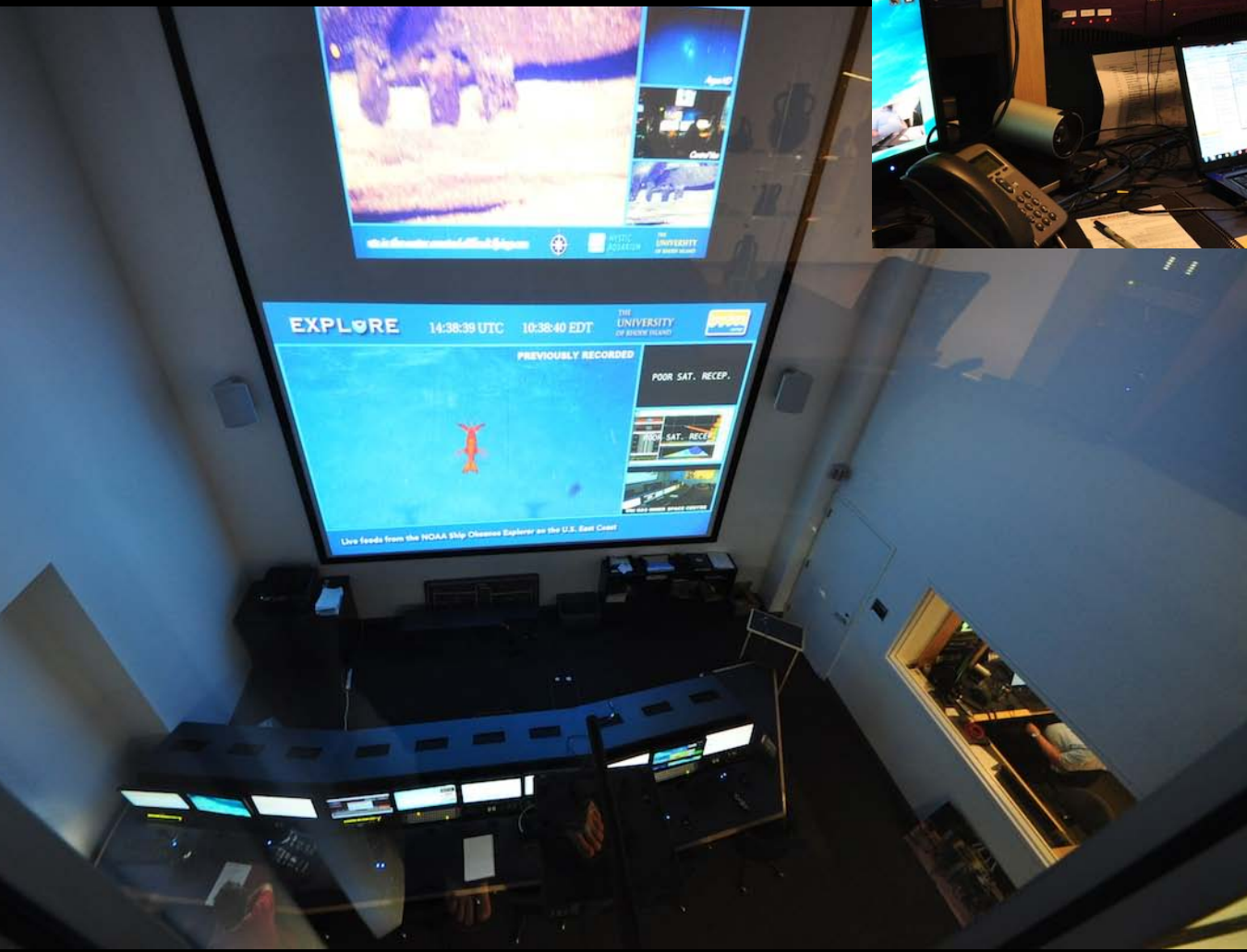


Ship-to-Shore Telepresence





# INNER SPACE CENTER MISSION CONTROL HUB





INNER SPACE CENTER PRODUCTION STUDIO



Science ECC Syracuse University

Science ECC University of New Hampshire

Science ECC University of Rhode Island

Science ECC Woods Hole Oceanographic Institution

Science ECC University of Delaware

Science ECC NOAA Headquarters, Silver Spring, MD

E&O ECC Choate Rosemary Hall, Wallingford, CT

E&O ECC Smithfield High School, Smithfield, RI

E&O ECC Boys & Girls Club of Stamford, CT

E&O ECC Mystic Aquarium, Mystic, CT

E&O ECC Stonington High School, Pawcatuck, CT

E&O ECC National Geographic Society, Washington, DC

E&O ECC Sunshine Ballpark, Fredericksburg, VA

E&O ECC Cape Henry Collegiate, Virginia Beach, VA

Science ECC NOAA PMEL, Seattle, WA

Science ECC NOAA PMEL, Newport, OR

E&O ECC NOAA Exploratorium, San Francisco, CA

E&O ECC NOAA Boys & Girls Club of Greater Scottsdale, AZ

E&O ECC NOAA San Antonio Public Library, San Antonio, TX

PAGE 56 | "Always Exploring"

PAGE 56 | "Always Exploring"

NOAA HQ SILVER SPRING



UNIVERSITY OF DELAWARE



UNIVERSITY OF HAIFA, ISRAEL

NOAA PMEL, SEATTLE



MYSTIC AQUARIUM THEATER, CT



CAPE HENRY COLLEGIATE SCHOOL, VA



EXPLORATORIUM, SAN FRANCISCO



SCOTTSDALE, AZ BOYS & GIRLS CLUB



PTZ CAMERAS (3 LOCATIONS)



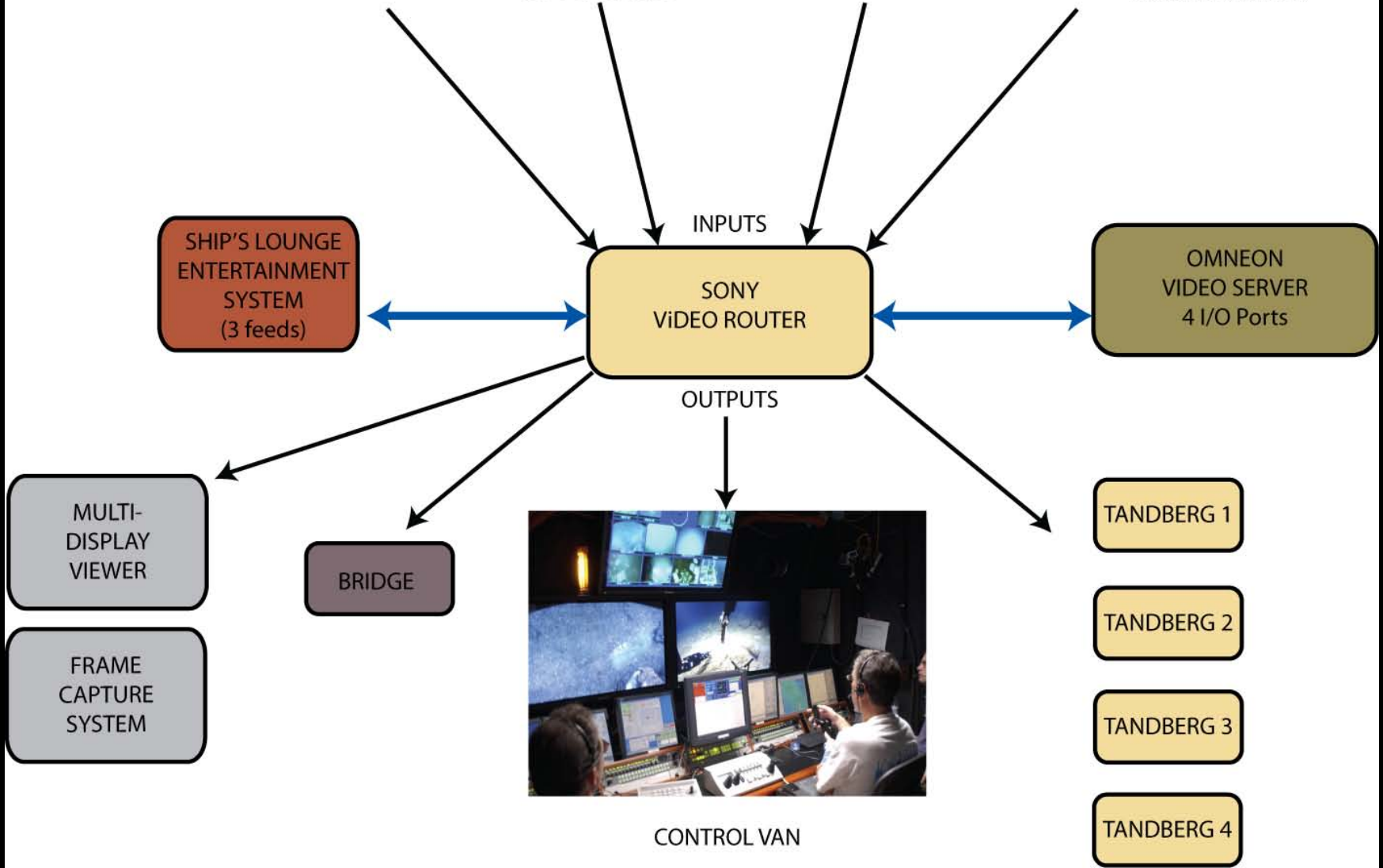
ROV CAMERAS



SLED CAMERAS



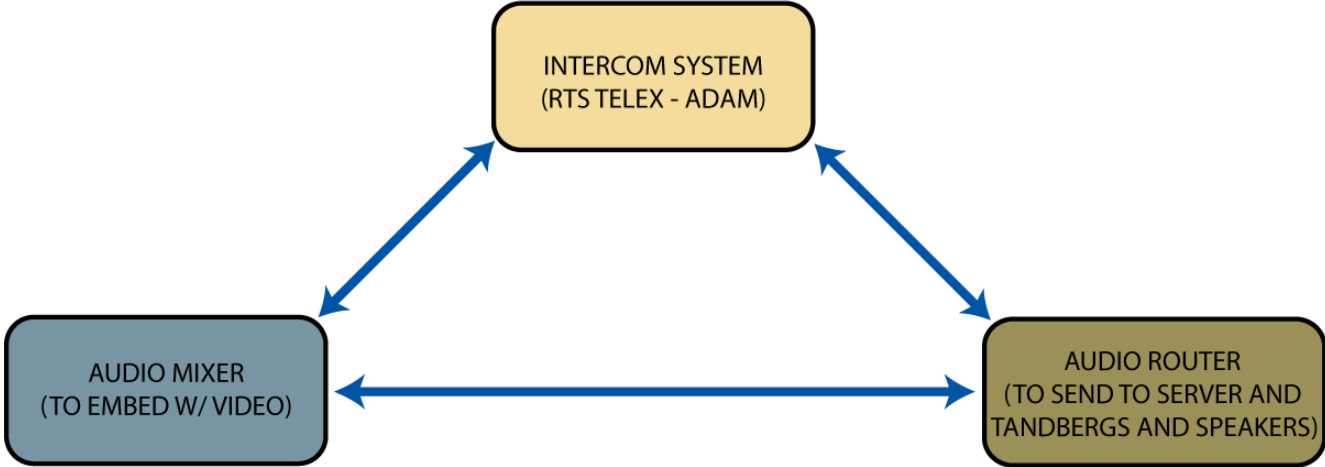
MOBILE CAMERA

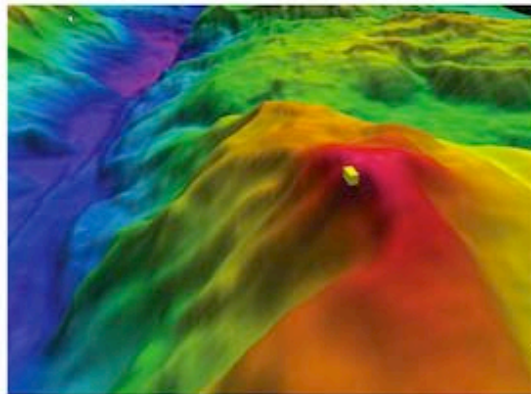




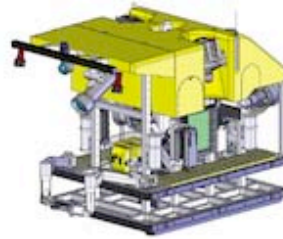
CHIEF SCIENTIST    ROV PILOTS    NAVIGATOR    BRIDGE    SCIENCE LAB    RACK ROOM    ROV SHOP    DECK (1-8)

URI CONSOLE    URI PRODUCTION    UNH CONSOLE    SILVER SPRING CONSOLE    PMEL CONSOLE    MYSTIC CONSOLE





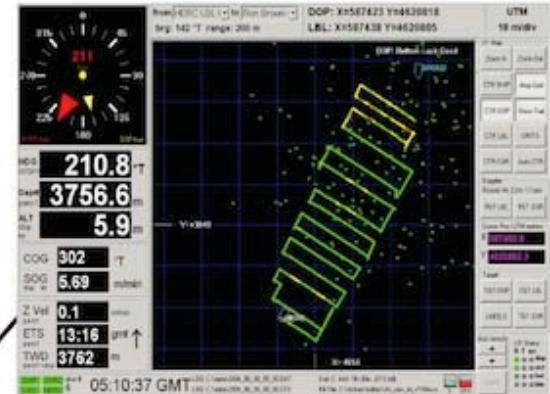
MULTIBEAM DATA



ROV SENSORS



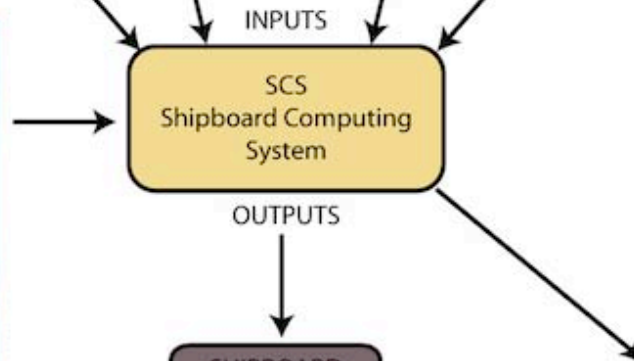
SLED SENSORS



NAVIGATION DATA



SHIPBOARD DATA - METS, NAV, UNDERWAY DATA



INPUTS

SCS  
Shipboard Computing  
System

OUTPUTS

SHIPBOARD  
COMPUTERS

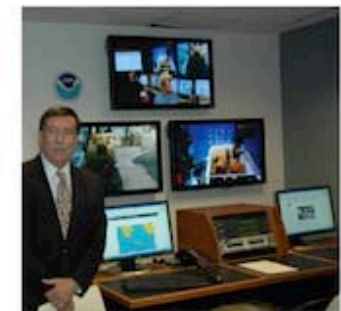
DATA STREAM 1

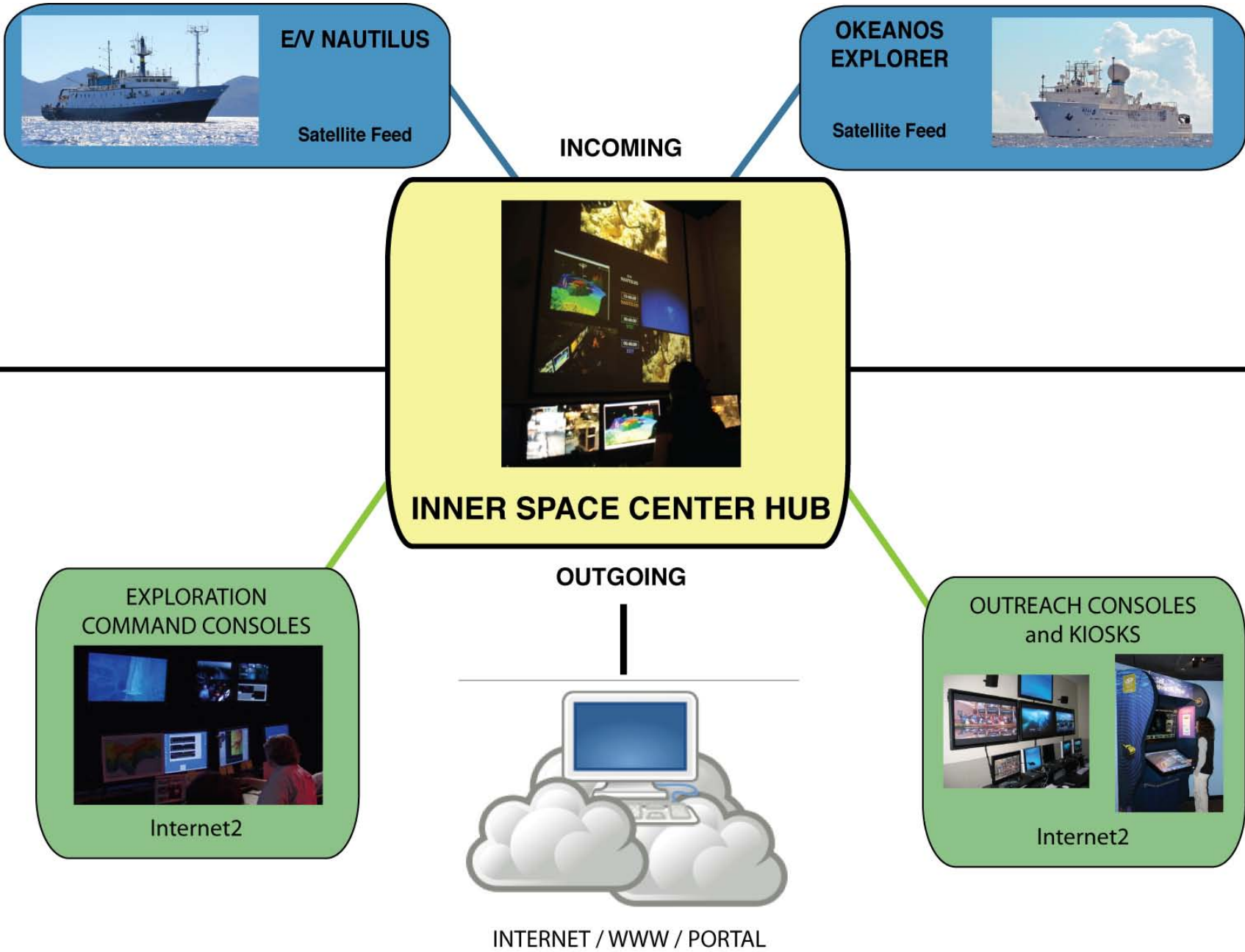
DATA STREAM 2

DATA STREAM 3



CONTROL ROOM





**E/V NAUTILUS**



Satellite Feed

**OKEANOS EXPLORER**



Satellite Feed

**INCOMING**



**INNER SPACE CENTER HUB**

**OUTGOING**

**EXPLORATION  
COMMAND CONSOLES**



Internet2

**OUTREACH CONSOLES  
and KIOSKS**



Internet2



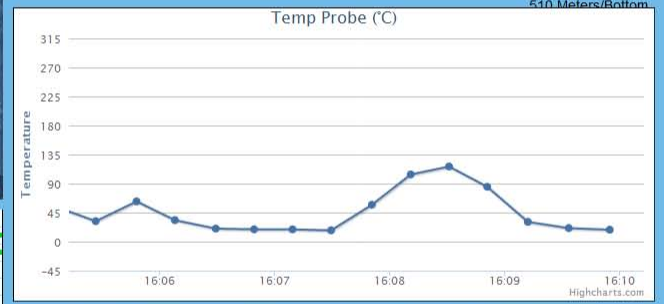
INTERNET / WWW / PORTAL



**SHIP**  
 Lat/Lon: 36.5267 / 25.4867  
 Course/Heading: -28.2  
 Speed: 1.1 kts

**SLED**  
 Depth: 503.3230 meters  
 Course/Heading: ...

**ROV**  
 Depth: 503.3230 meters  
 Course/Heading: ...



Event Log

- SHIP
- Navigation
- Environmental
- Multibeam Sonar
- Multimedia
- SLED
- Navigation
- Environmental
- Sidescan Sonar
- Multimedia
- ROV
- Navigation
- Environmental
- Temp. Probe
- Multimedia
- Image
- Video

Date: Sat, 31 Jul 2010 16:05:26 GMT  
 Julie Fero Martin  
 high T 64.51

Zoomed in between 1280591518 and 1280593242 at 1 second level of detail

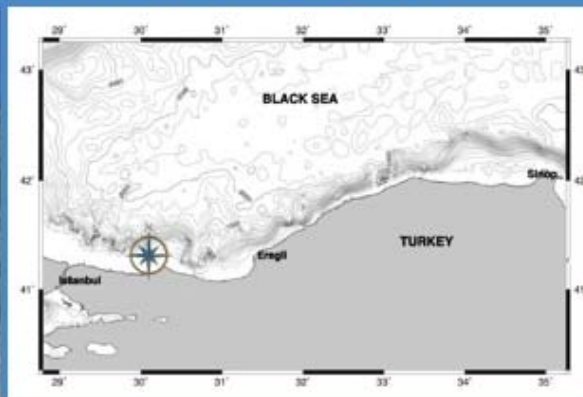
Time at: 2010/07/31 16:05:12 [Pause] [Stop] [Play Speed: x1]



# Cruise: NA021 | Dive: H1220 | July 12 2012

Information and compilation and design by Inner Space Center watchstander Donald Sweet

Objective: Dive on 4th century BC wreck called Eregli E and remap the site



ROVs Hercules and Argus Launched

July 12 22:17

Hercules reaches seafloor

July 12 22:54  
Temp.=7.9°C Depth=96m

Exploring Wreck, Eregli E

July 12 23:11 - July 13 04:11  
Temp.=7.9°C Depth=97m

Eregli E is a shipwreck site off the coast of Eregli, Turkey which was first explored by the Nautilus in 2011. The wreck contains various amphora and small organisms living among the debris. Also, the scientists on board are interested in seeing damage done to the wreck due to trawling or other forces. After the wreck was examined, the Nautilus team mapped the site with BlueView sonar. In completion of mapping Eregli E, the Nautilus investigated a target nearby which turned out to be trawl marks.

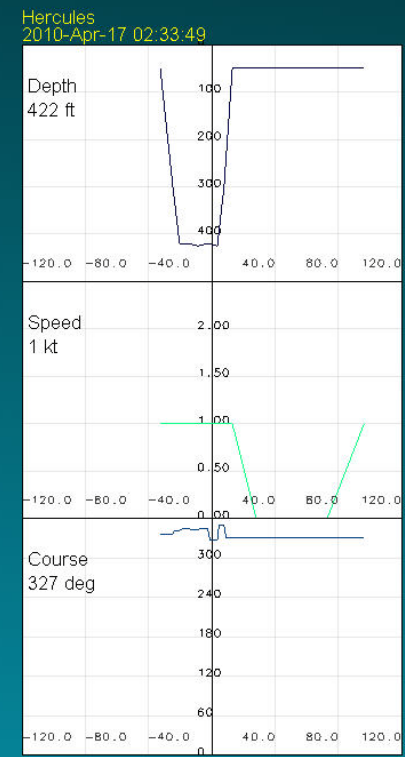
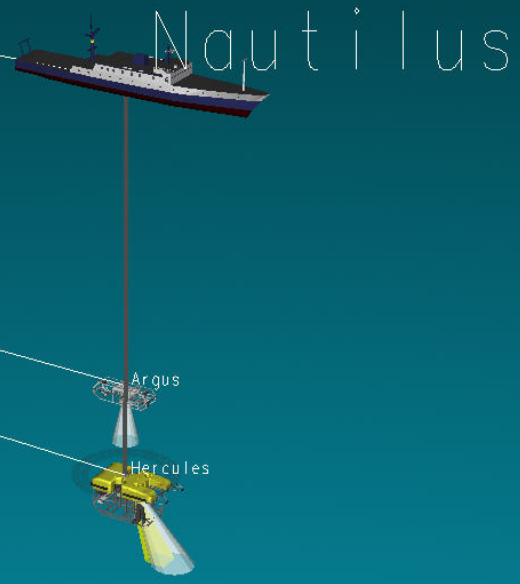
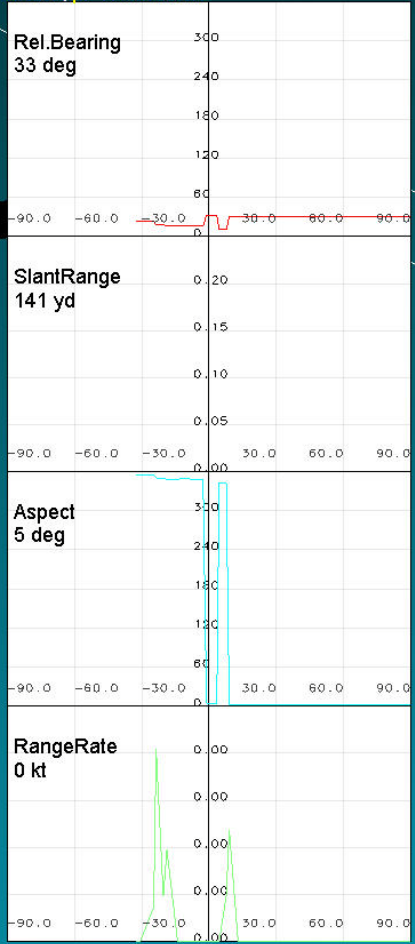


Depart Eregli E and transit to Eregli F

July 13 04:11  
Temp.=7.0°C Depth=47.5m

2010-Apr-17 02:33:49 Z

- [1] Hercules
  - [2] Nautilus
- 2010-Apr-17 02:33:49



Selected Unit: Hercules  
 Lat (deg): 042° 20' 40.058" N  
 Lon (deg): 028° 22' 55.223" E  
 Speed (kts): 1.0  
 Heading (deg): 326.9  
 Pitch (deg): 359.5  
 Roll (deg): 0.0  
 Course (deg): 326.9  
 Sea floor (ft): 518  
 Depth (ft): 422.2

Mouse Cursor Position  
 Lat (deg): 042° 20' 36.367"  
 Lon (deg): 028° 22' 54.173"  
 Depth (ft): 514.893

205.1 dg

2010-Jun-29 00:17:40 Z

Selected Unit: ROV  
Lat (deg): 004° 40' 35.413" N  
Lon (deg): 125° 05' 14.115" E  
Speed (kt): 0.0  
Heading (deg): 75.0  
Pitch (deg): 340.0  
Roll (deg): 0.0  
Course (deg): 0.0  
Sea floor (ft): 6233  
Depth (ft): 9089.2

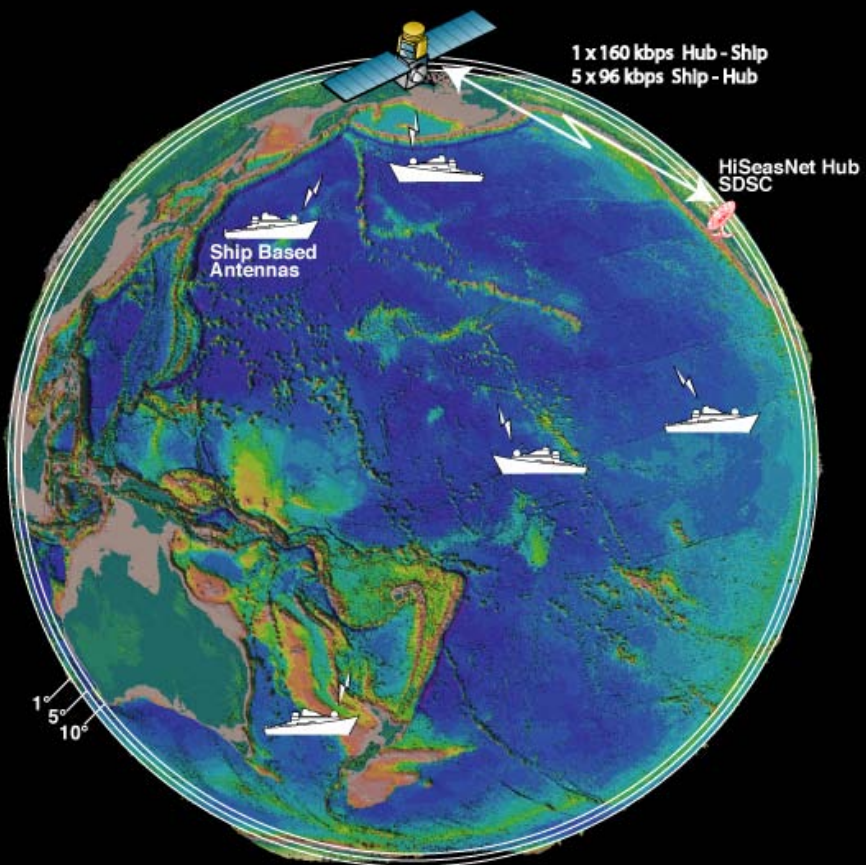


315.4 dg

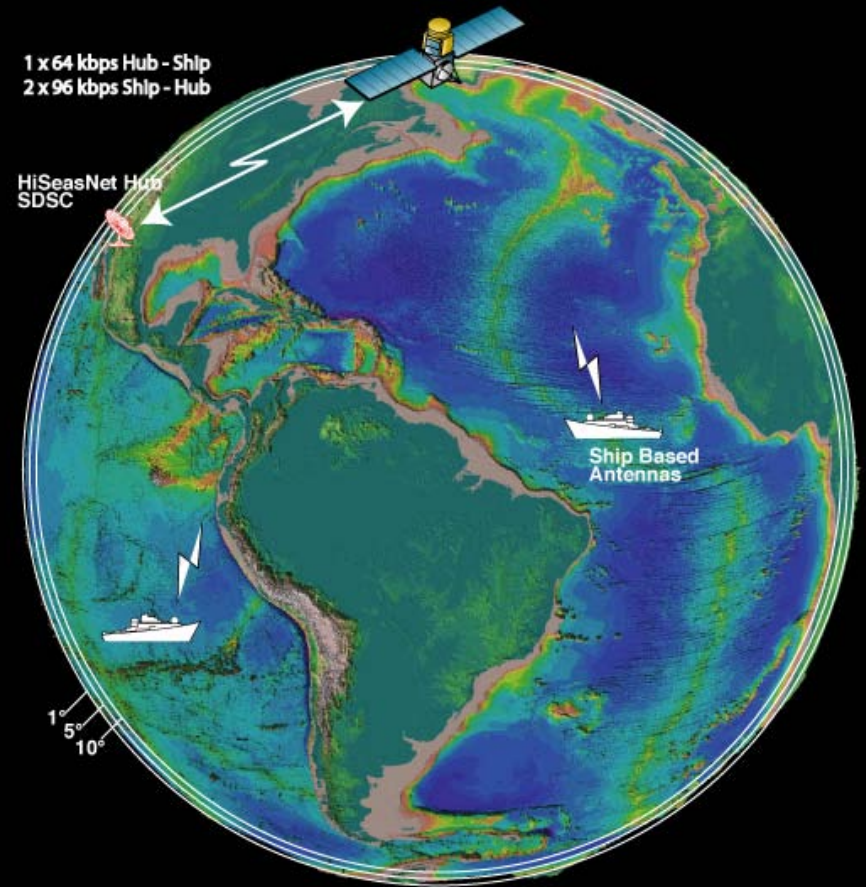
# HiSeasNet

INTERNET FOR OCEANOGRAPHIC SHIPS AT SEA

C-Band Pacific Ocean Satellite

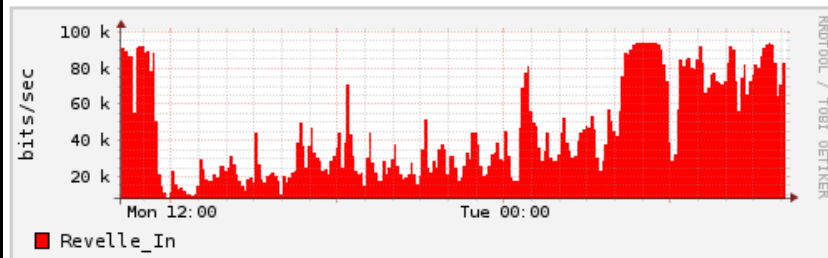


C-Band Atlantic Ocean Satellite

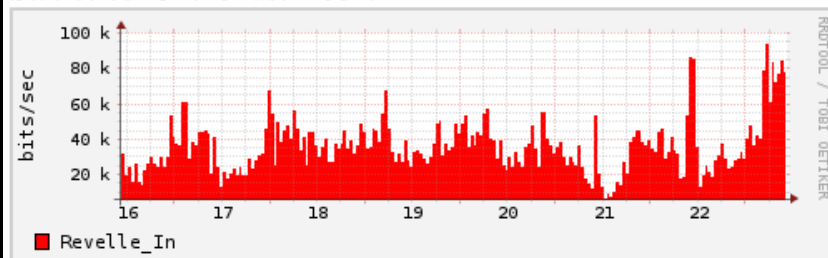




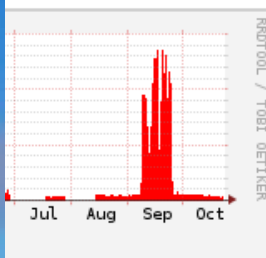
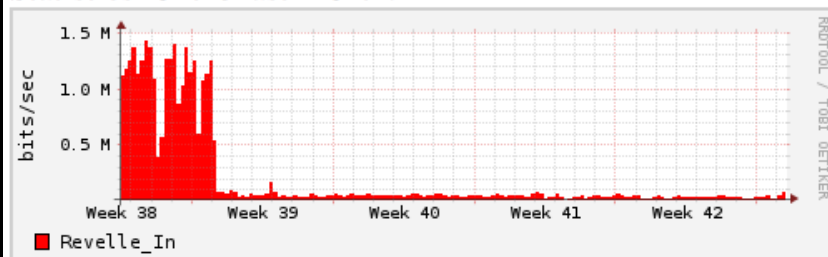
### Statistics for the last 24 hours:



### Statistics for the last week:



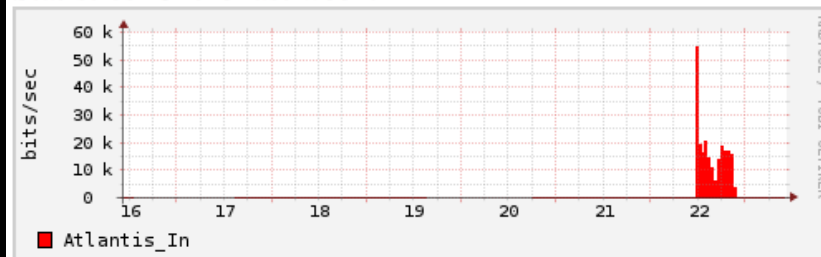
### Statistics for the last Month:



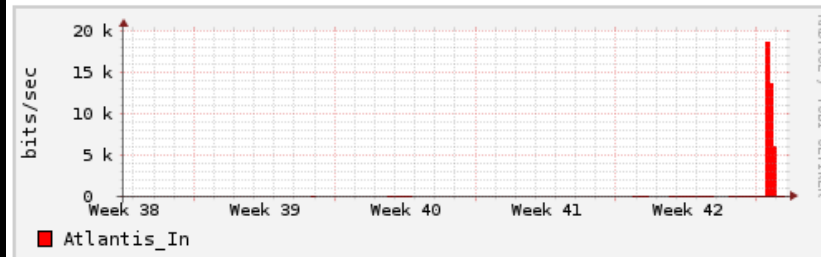
### Statistics for the last 24 hours:



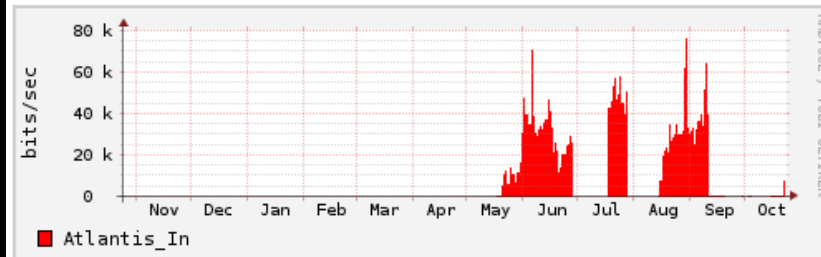
### Statistics for the last week:



### Statistics for the last Month:



### Statistics for the last Year:



# 2009 - OCEAN EXPLORATION TRUST



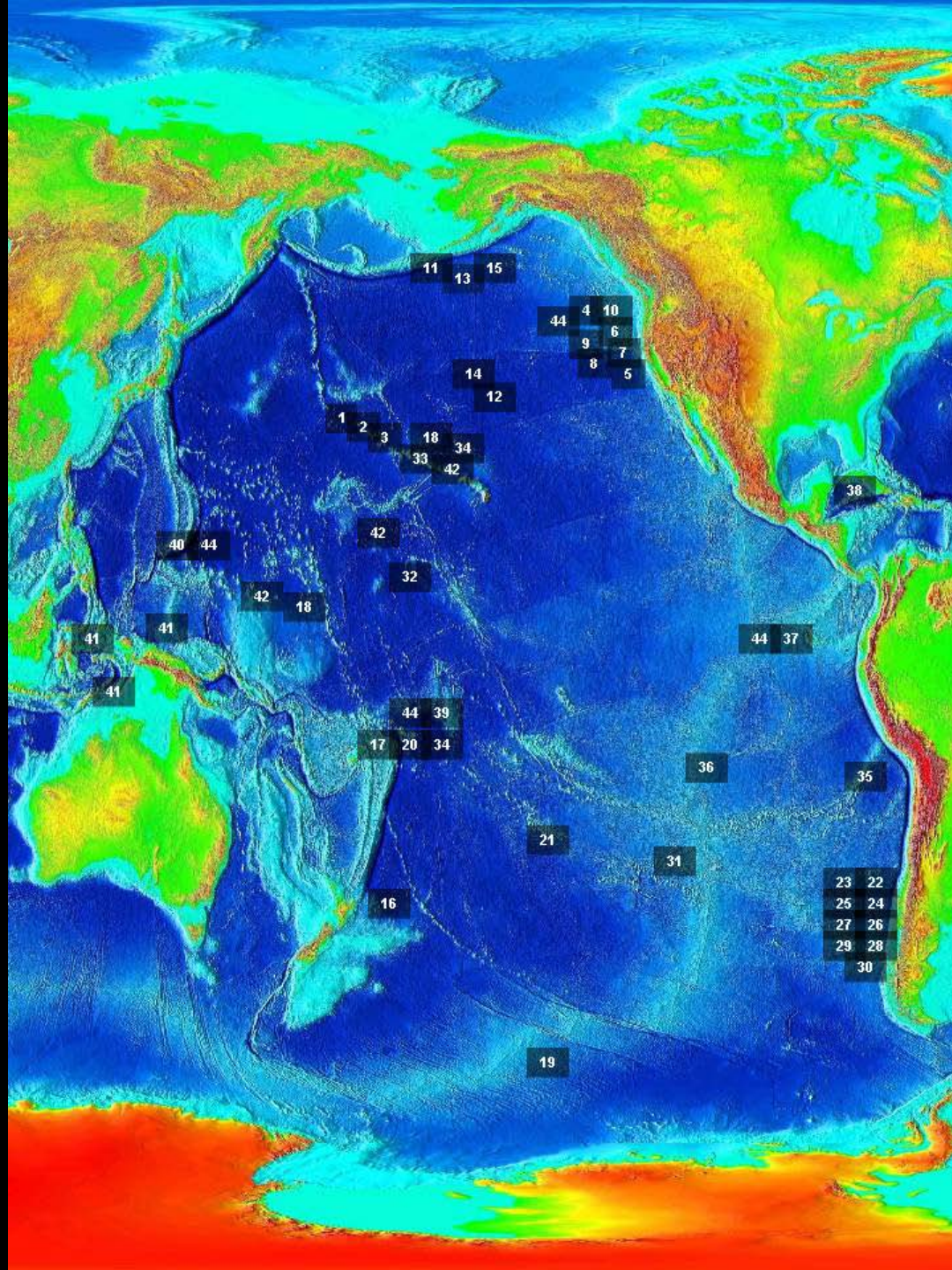
*E/V NAUTILUS*



2010



*“Box and Stick” Strategy*



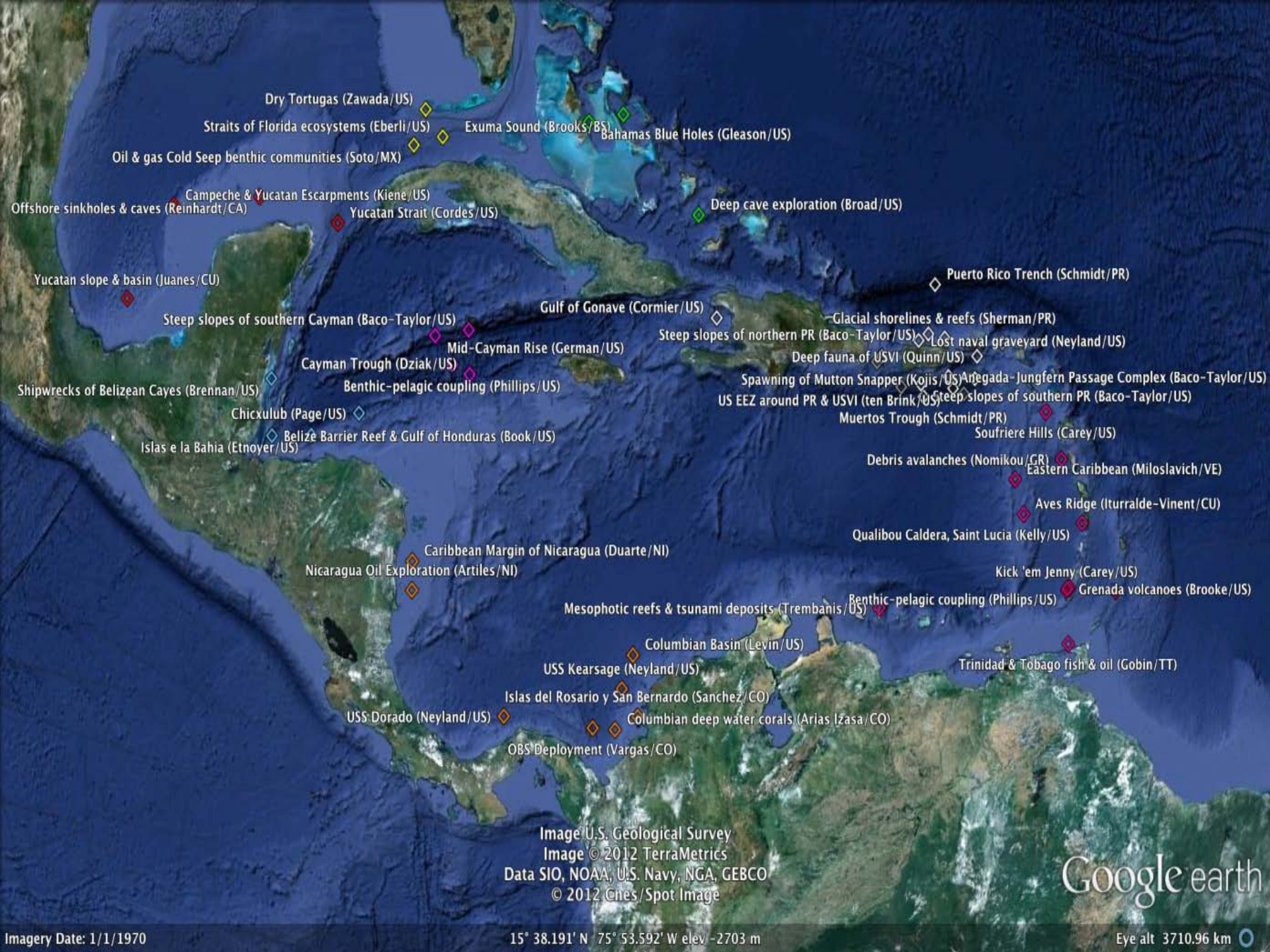
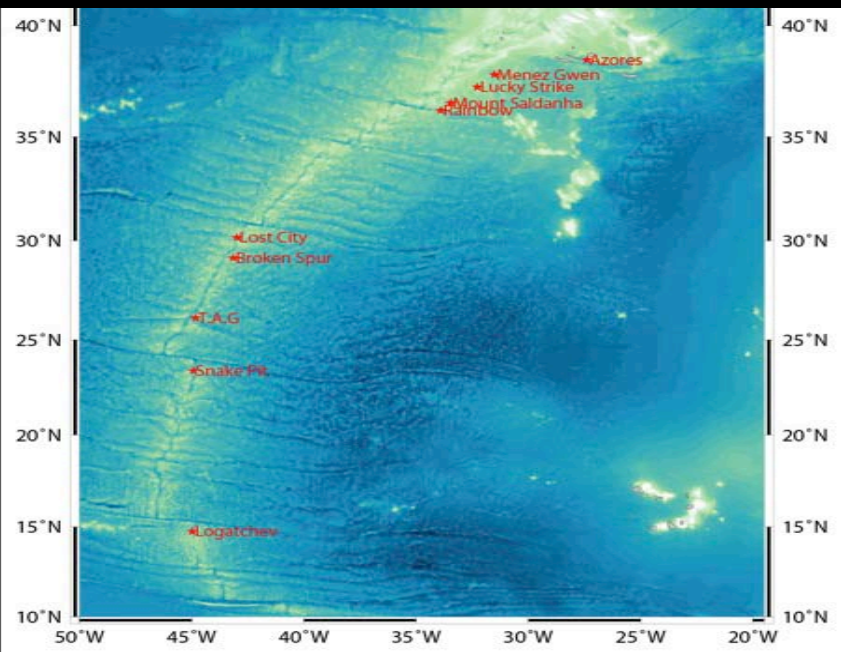
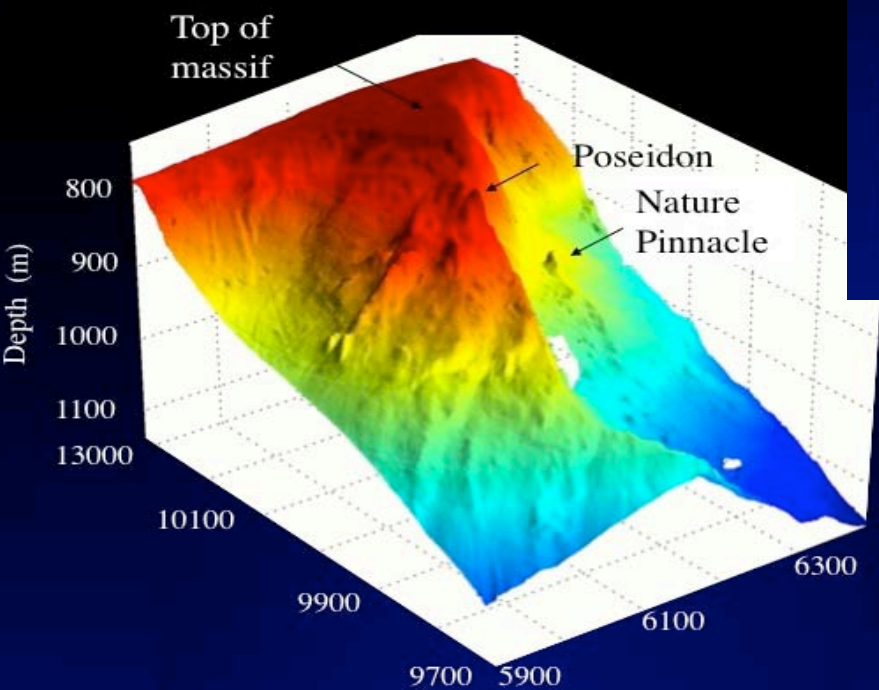
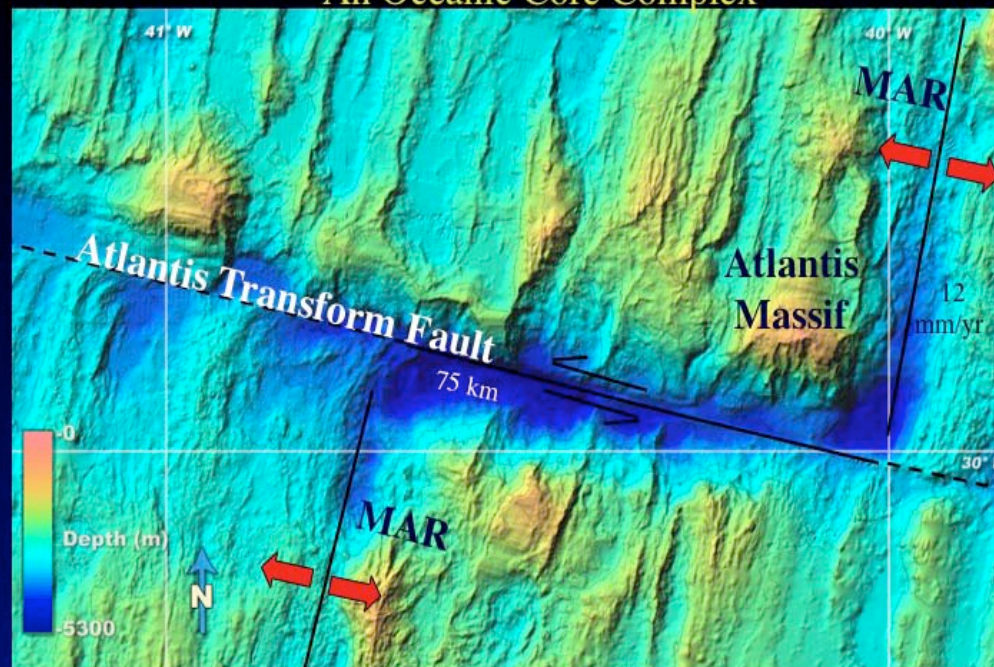


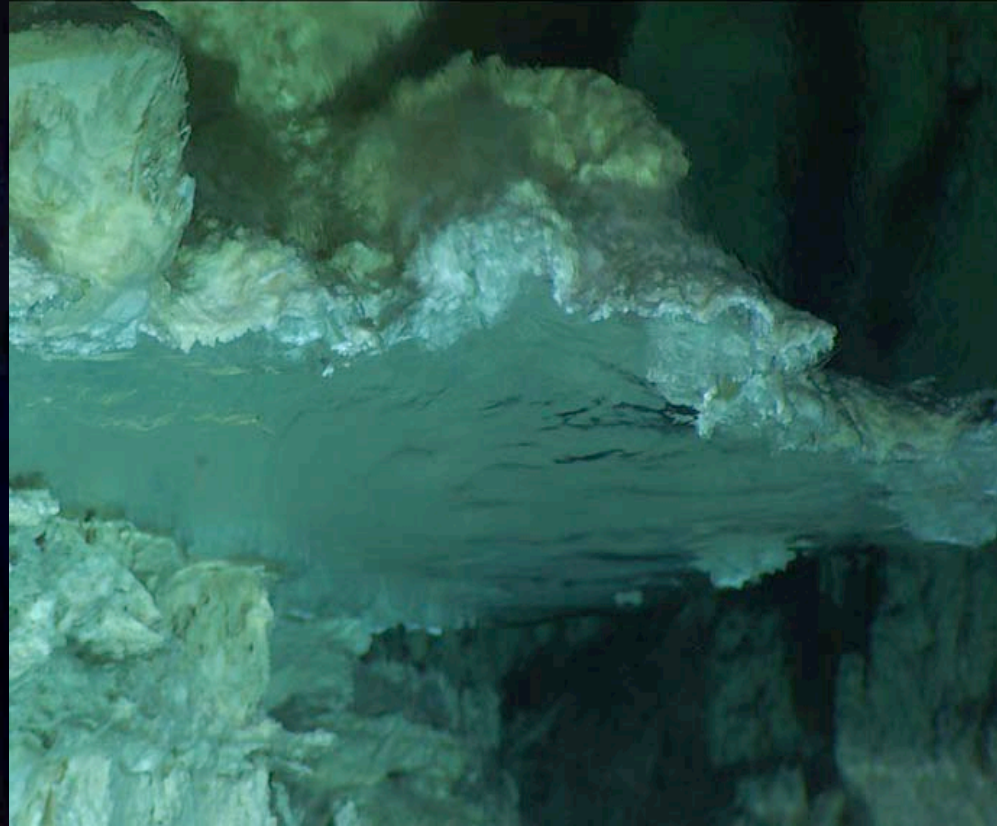
Image U.S. Geological Survey  
 Image © 2012 TerraMetrics  
 Data SIO, NOAA, U.S. Navy, NGA, GEBCO  
 © 2012 Cnes/Spot Image

Google earth



### 30°N Mid-Atlantic Ridge An Oceanic Core Complex











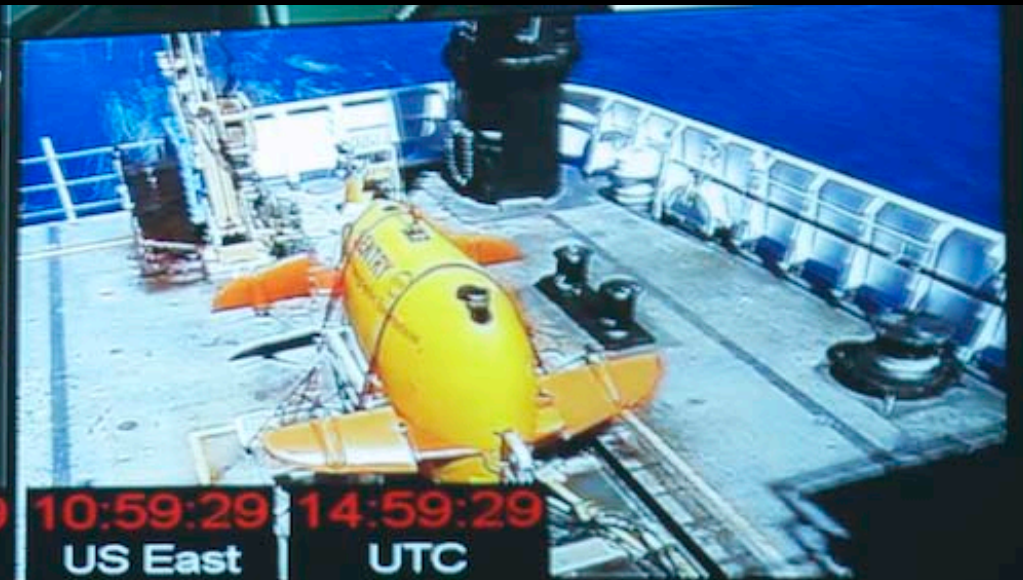
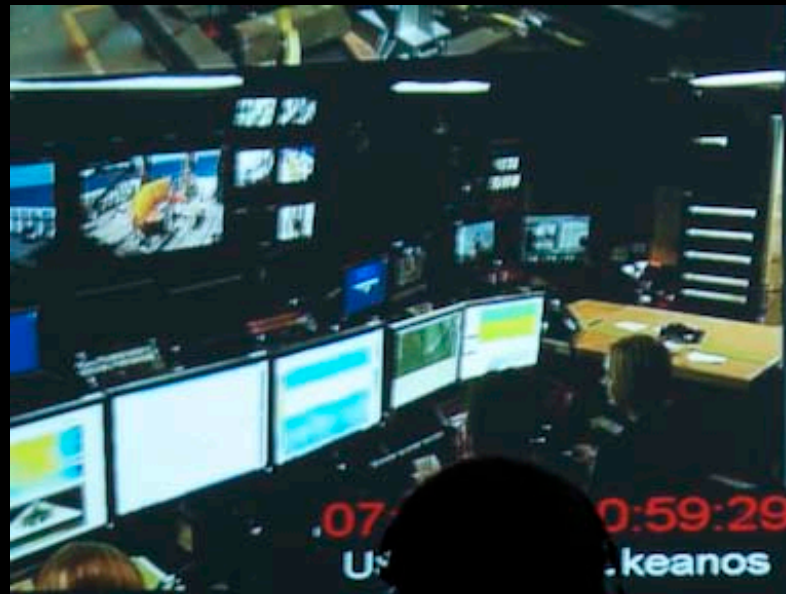




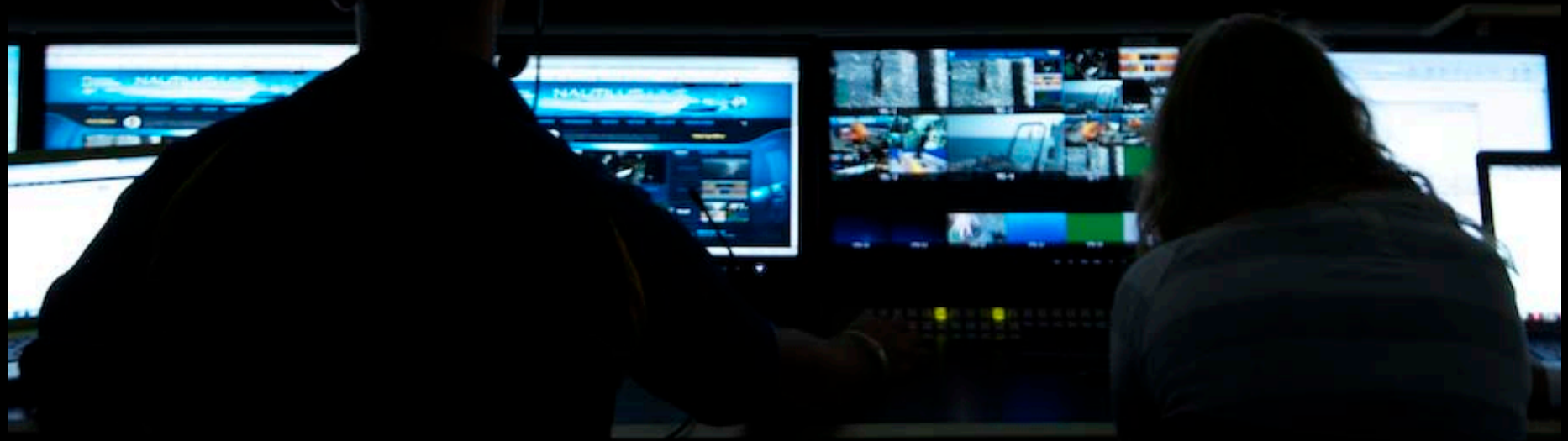
2012 Sentry Cruise  
onboard  
*Okeanos Explorer*

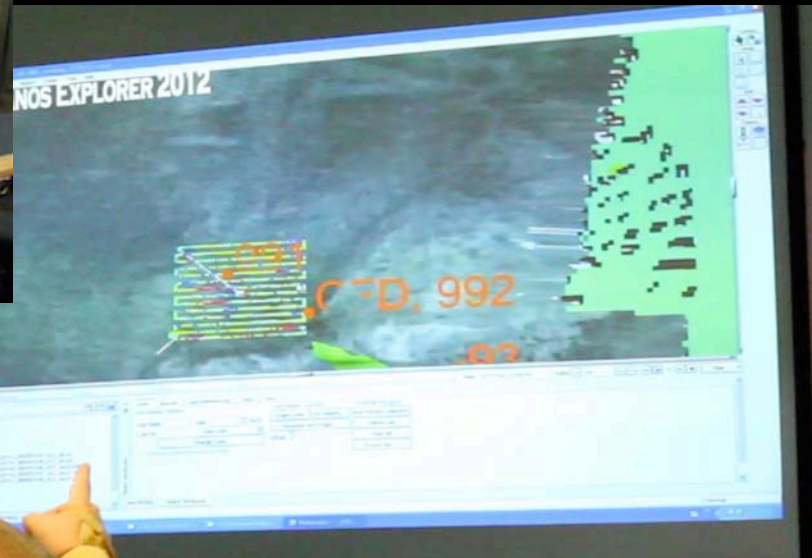
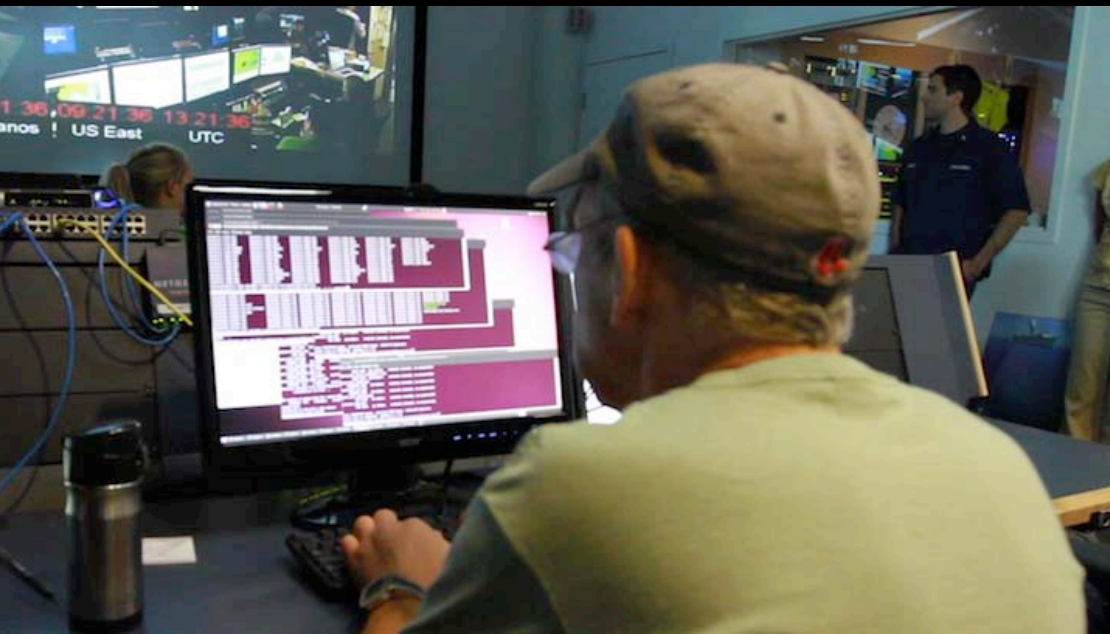






07:59:29 10:59:29 14:59:29  
US ... keanos US East UTC



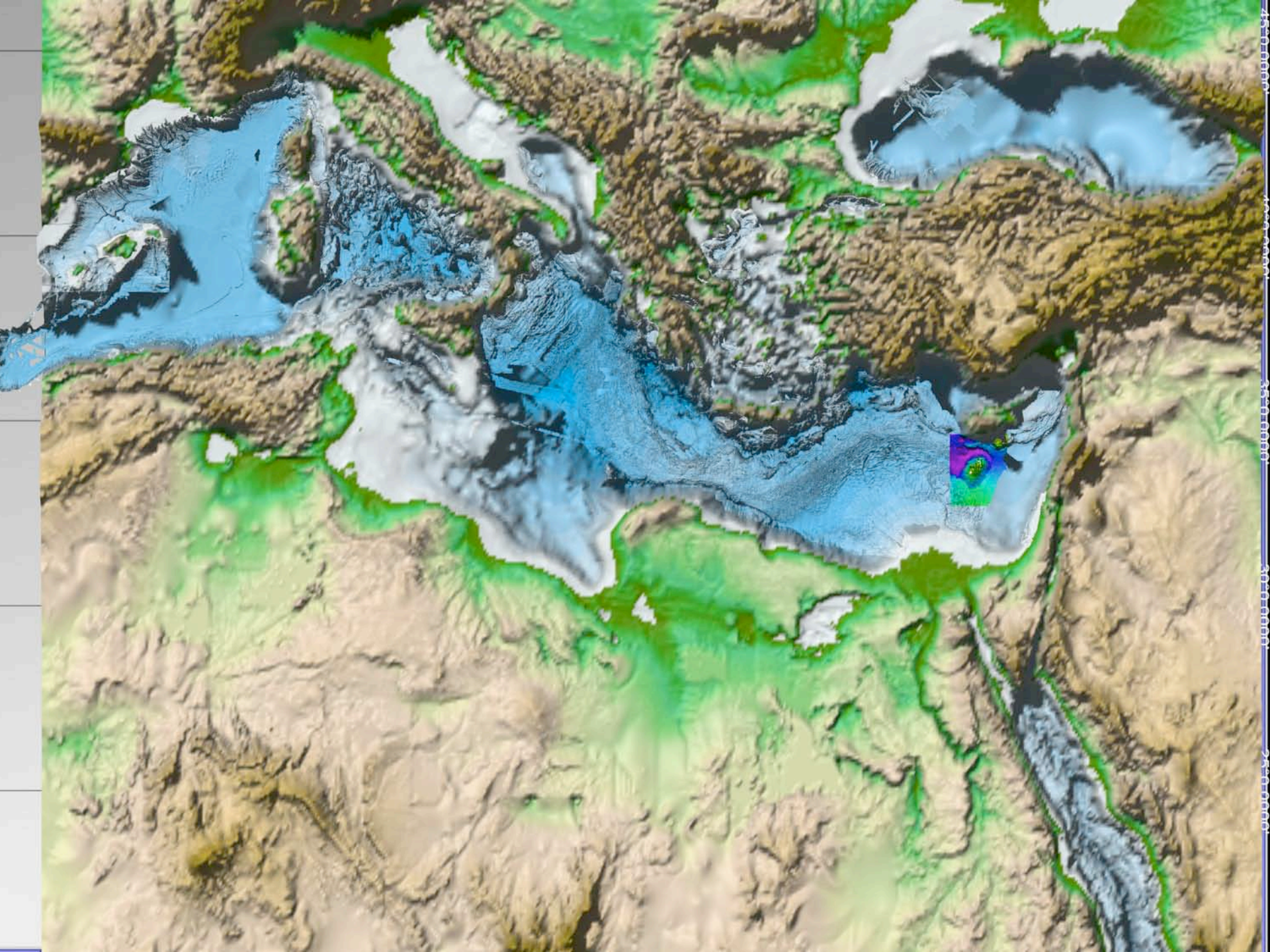


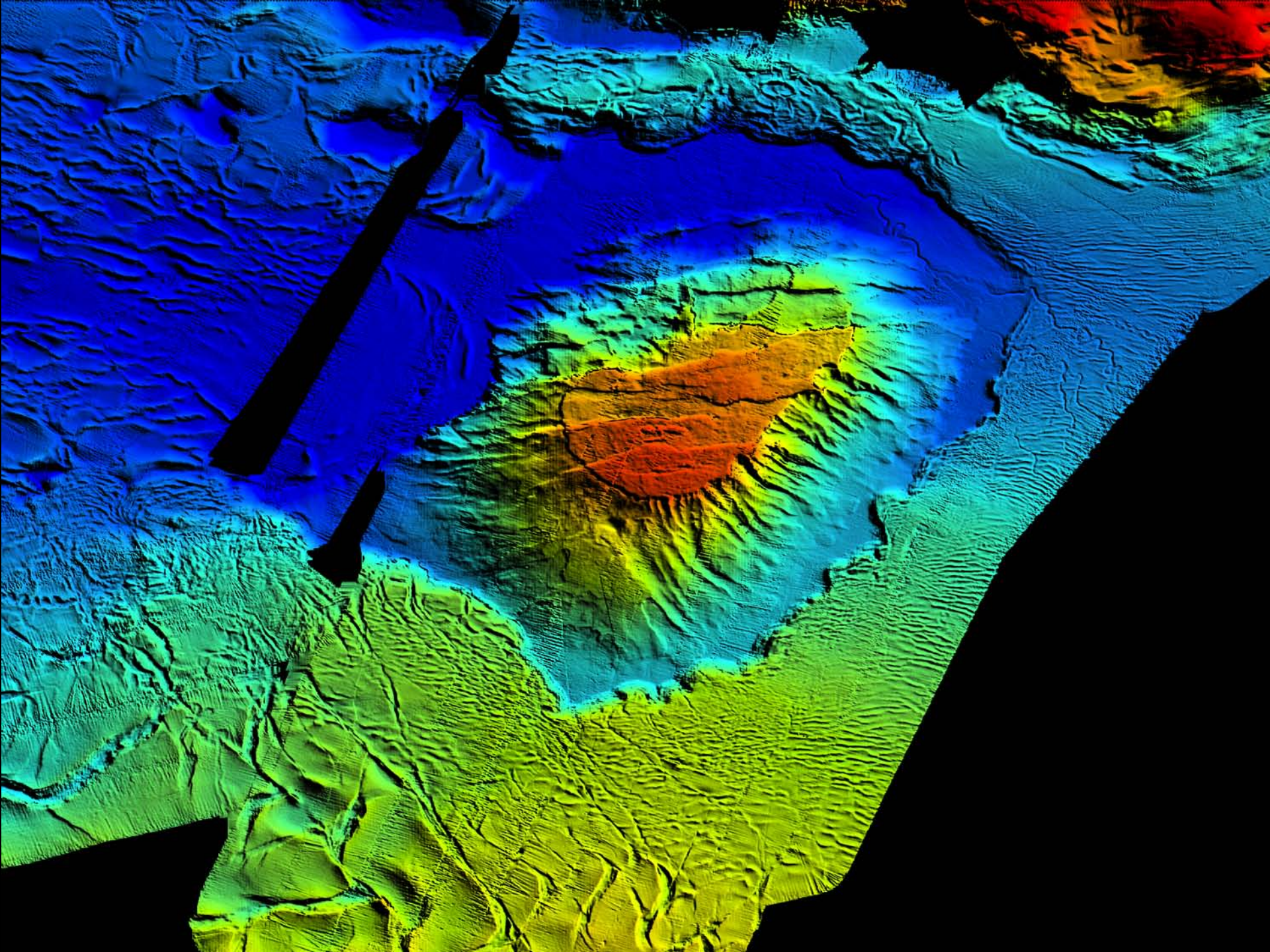


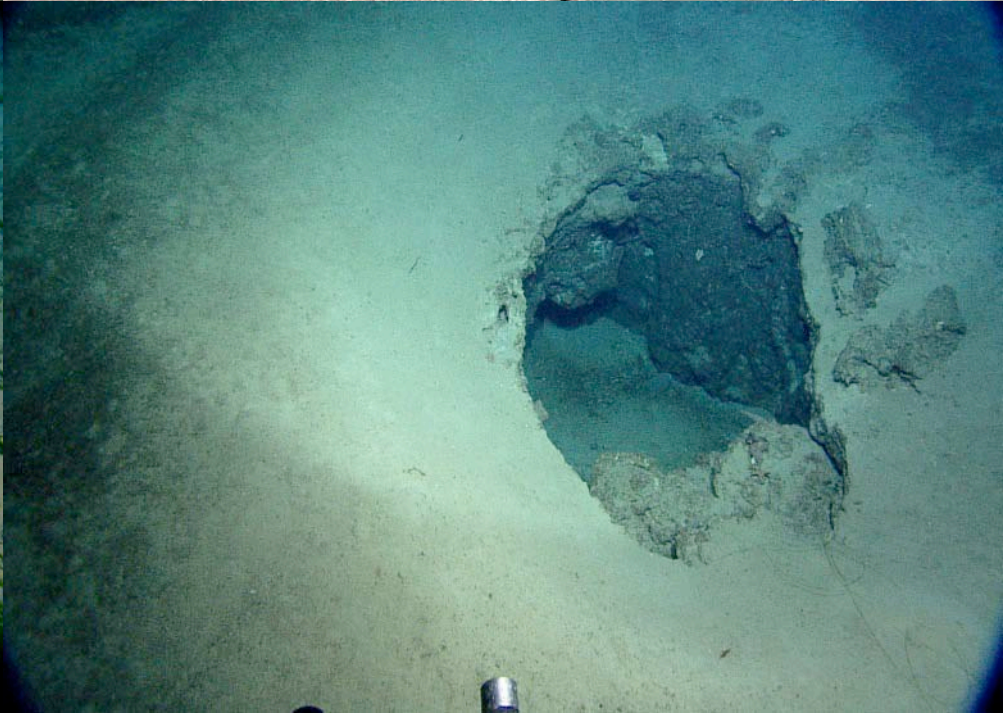


# 2011 Nautilus Cruise Track



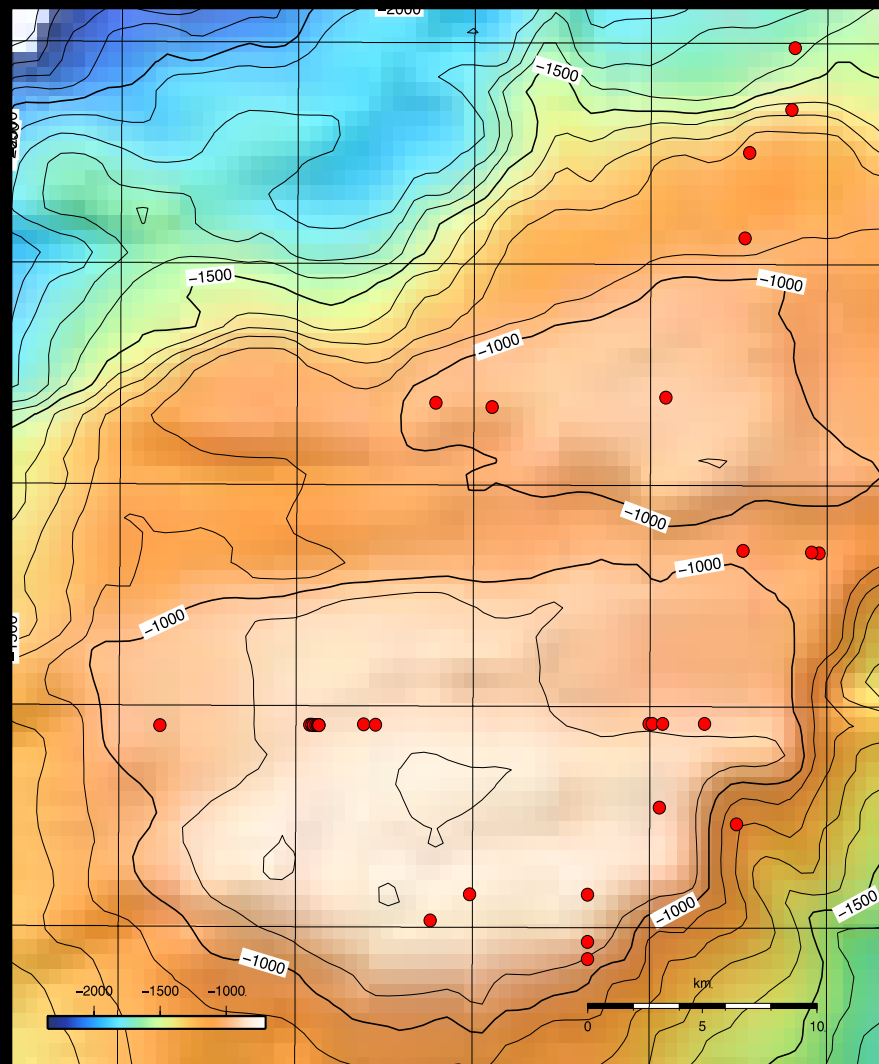
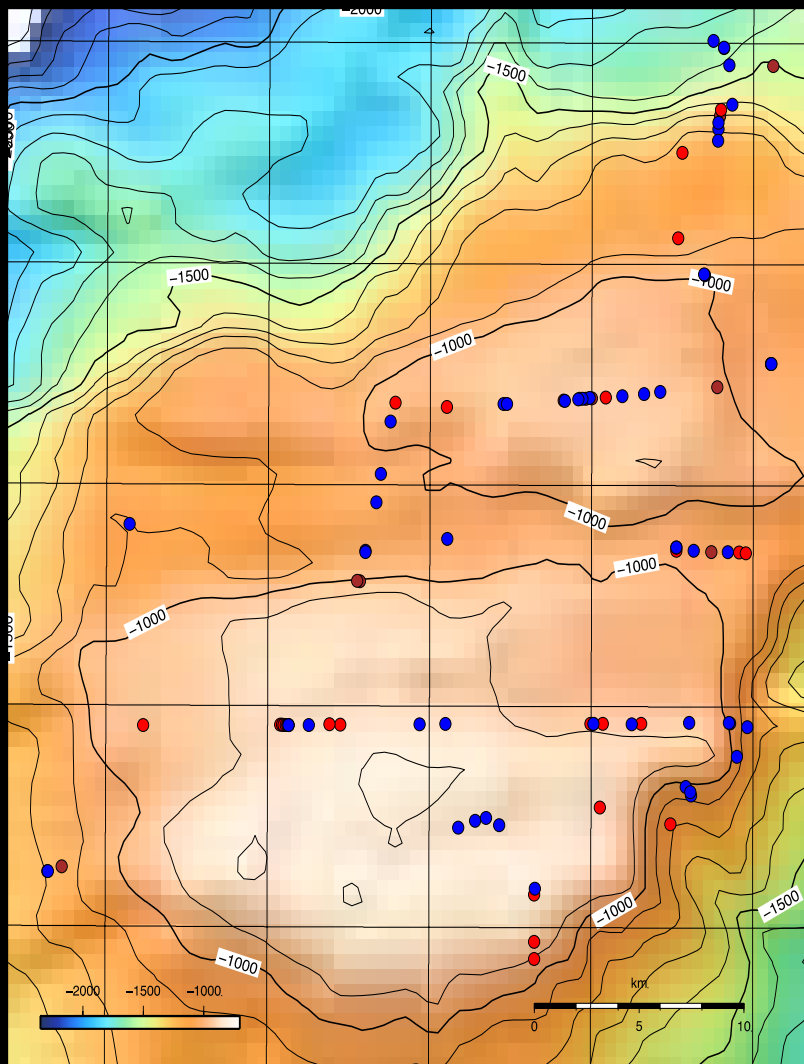






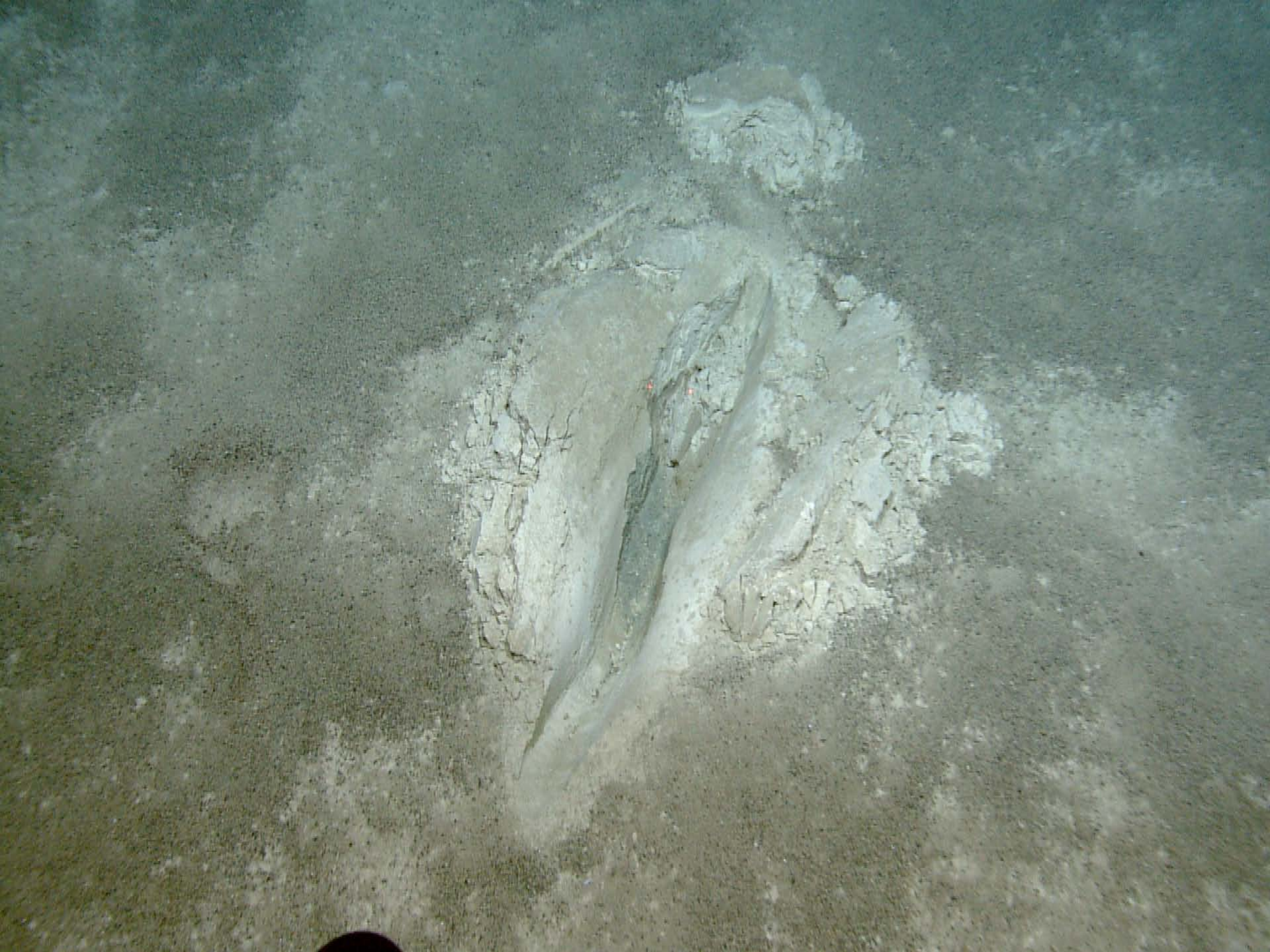


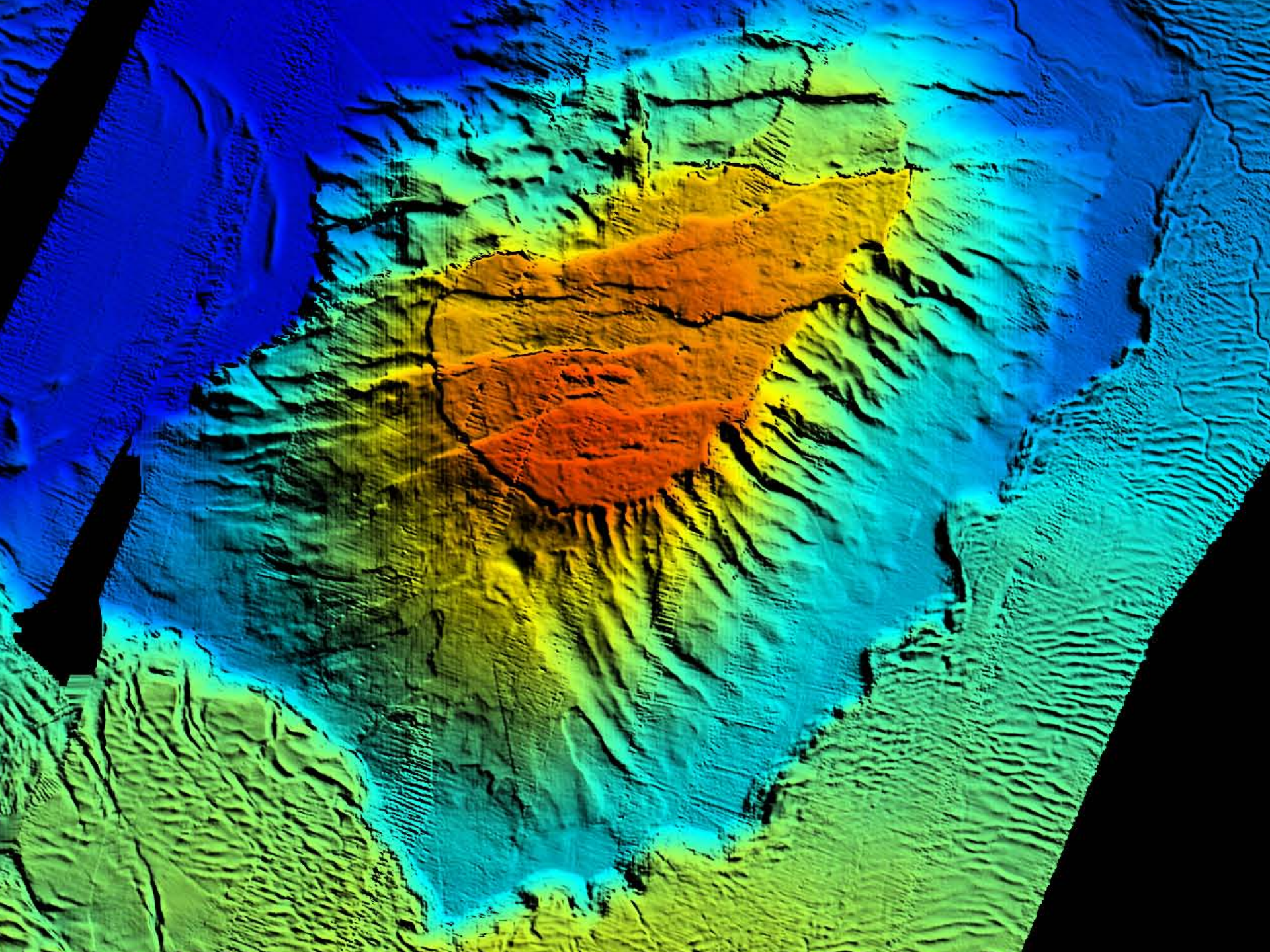


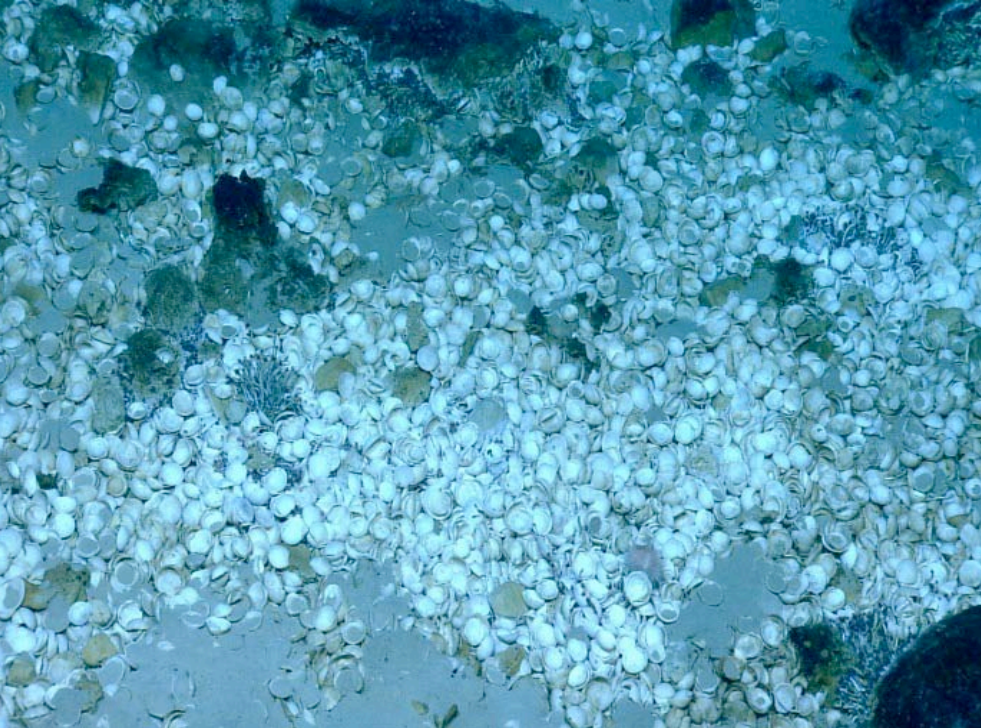












# *Nautilus* E&O

2009-2011

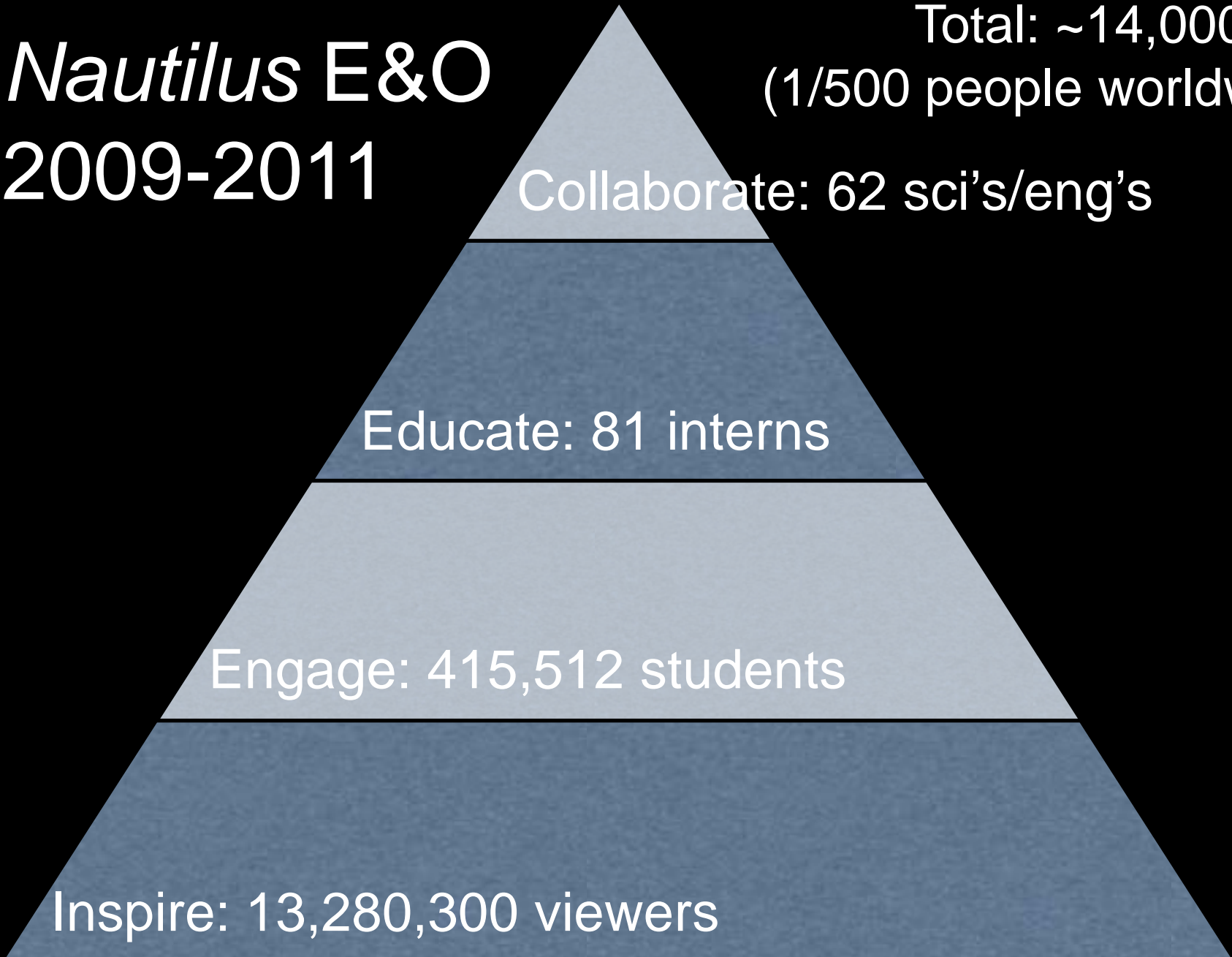
Total: ~14,000,000  
(1/500 people worldwide)

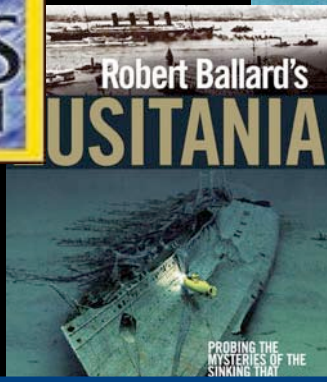
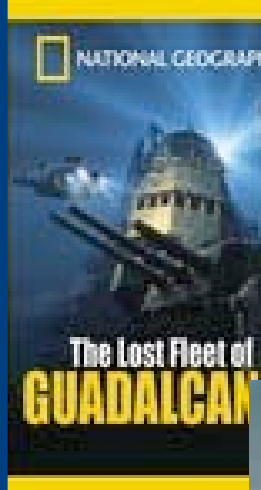
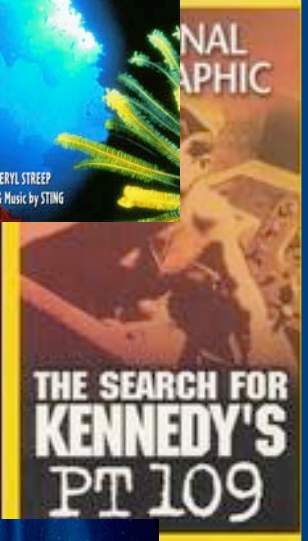
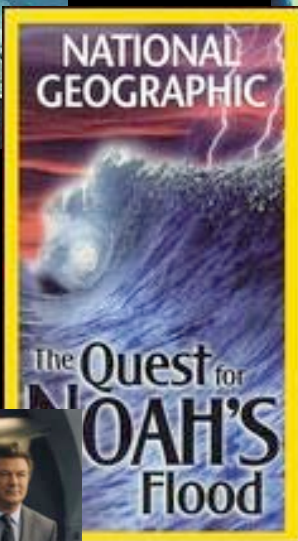
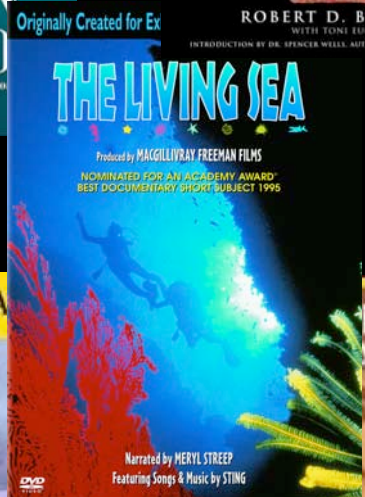
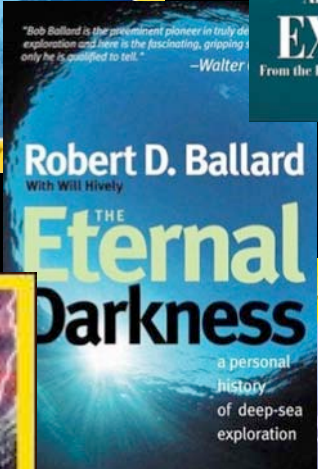
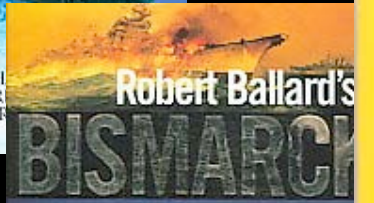
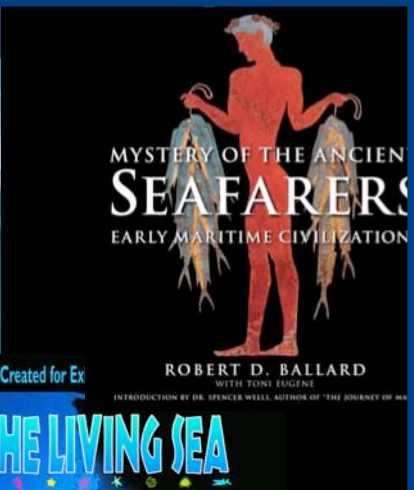
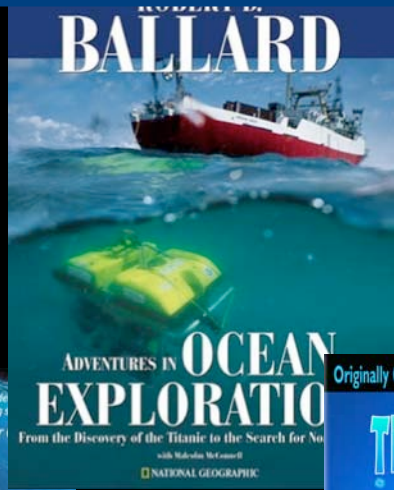
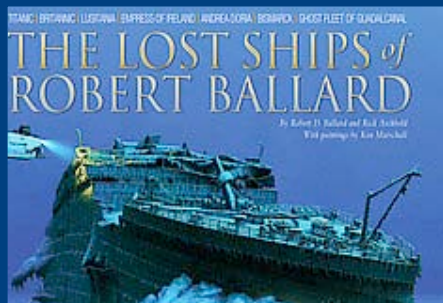
Collaborate: 62 sci's/eng's

Educate: 81 interns

Engage: 415,512 students

Inspire: 13,280,300 viewers







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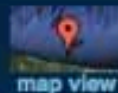
The live video feeds from the *EV Nautilus* have ended.



## CURRENT STATUS

The 2011 expedition has ended. The science team disembarked in Haifa, Israel. The crew is taking the Nautilus to Bodrum, Turkey for some testing and demobilization.

Posted by *EV Nautilus* 9 weeks 3 days ago



map view



share

00:16 | 03:37

## LATEST VIDEOS



**Biology Summary - 2011 Nautilus Expedition**

9 weeks 5 days ago



**Shipwreck Summary - 2011 Nautilus Expedition**

9 weeks 5 days ago



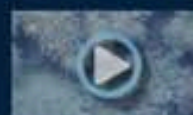
**Expedition Summary - Israel Leg 8**

9 weeks 5 days ago



**News Update - November 15**

9 weeks 5 days ago



**Deep Sea Coral Reef - Dive Highlights**

9 weeks 5 days ago

[Meet the Team](#)

## LATEST PHOTOS



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EXIT

Recent Videos

Nautilus Expedition Summary, 2011  
Expedition Summary 2011  
7 months 1 week ago

Nautilus @ Igloovest, Pt. Barrow, 2011  
Expedition Summary 2011  
7 months 1 week ago

**NAUTILUS LIVE**  
NEWS UPDATE  
Nautilus News: November 14, 2011  
Eastern Mediterranean Gas  
7 months 2 weeks ago

VIEW MORE

Recent Photos

Amalthea  
8 hours 32 min ago

WWV Albatross  
8 hours 26 min ago

R/V Nautilus  
4 days 21 hours ago

Latest News & Updates

VIEW MORE



EXPLORE

11:05:54 EDT

THE UNIVERSITY OF RHODE ISLAND



PREVIOUSLY RECORDED

POOR SAT. RECEPTION



Live feeds from the NOAA Ship Okeanos Explorer on the U.S. East Coast















## CURRENT STATUS

We are diving on a seafloor feature inside Santorini volcano, Greece, to search for recent geologic activity.

Posted by Katy Croff Bell: 54 min 56 sec ago



map view



CURRENT SHIP TIME: 02:57:39

Watch this space for live updates from the control room onboard *E/V Nautilus*.

## LIVE VIDEO

Channel 1  
Channel 2  
Quad  
Video Help

## WHO'S ON WATCH?

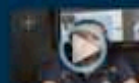
Leader:	Data:	Navigator:	Video:	Argus:	Hercules:	Educator:
						
Katy Croff Bell	Konstantina Bejelou	Lachlan Toohey	Brian Raynes	Rhonda Montz	Matt Slusher	Marty Momsen

## MISSION

### LATEST VIDEOS



News Update -  
September 7  
6 hours 39 min ago



Meet the Team -  
Geologist  
Konstantina Bejelou  
1 day 1 hour ago



News Update -  
September 6  
1 day 6 hours ago



Behind the Science -  
Hydrothermal Vents  
2 days 5 hours ago



News Update -  
September 5  
2 days 6 hours ago



Interview with Doctor-  
On-Call Steve Carew

### LATEST PHOTOS

### SEND A QUESTION

### SCHEDULE

### BEHIND THE SCIENCE



Behind the Science -  
Hydrothermal Vents



Behind the Science -  
Imaging Shipwrecks

### LATEST BLOGS



#### Getting our Bearings

by Marty Momsen Sep 4, 2011 - 02:29

During this leg of expedition (NAO14), *E/V Nautilus* is returning to the Kolumbo underwater volcano located 7 kilometers off the coast of Santorini, Greece. *E/V Nautilus* initially...

1 Read more



#### How Do Amphorae Stack Up?

by Chuck Lockert Sep 1, 2011 - 16:11

Before boarding *E/V Nautilus*, I visited the Bodrum Museum of Underwater Archaeology in Bodrum, Turkey. This museum has an extraordinary collection of artifacts recovered from various...

10 Read more

#### Becoming an ROV Pilot

0 by DeDee Ludwig Aug 28, 2011 - 03:43

#### History, Science and Math, Oh My!

1 by DeDee Ludwig Aug 25, 2011 - 08:25

#### Dynamics Behind the Data

1 by Tiffany Rasch Aug 23, 2011 - 07:30

#### At Home...on the Nautilus

7 by DeDee Ludwig Aug 22, 2011 - 16:33

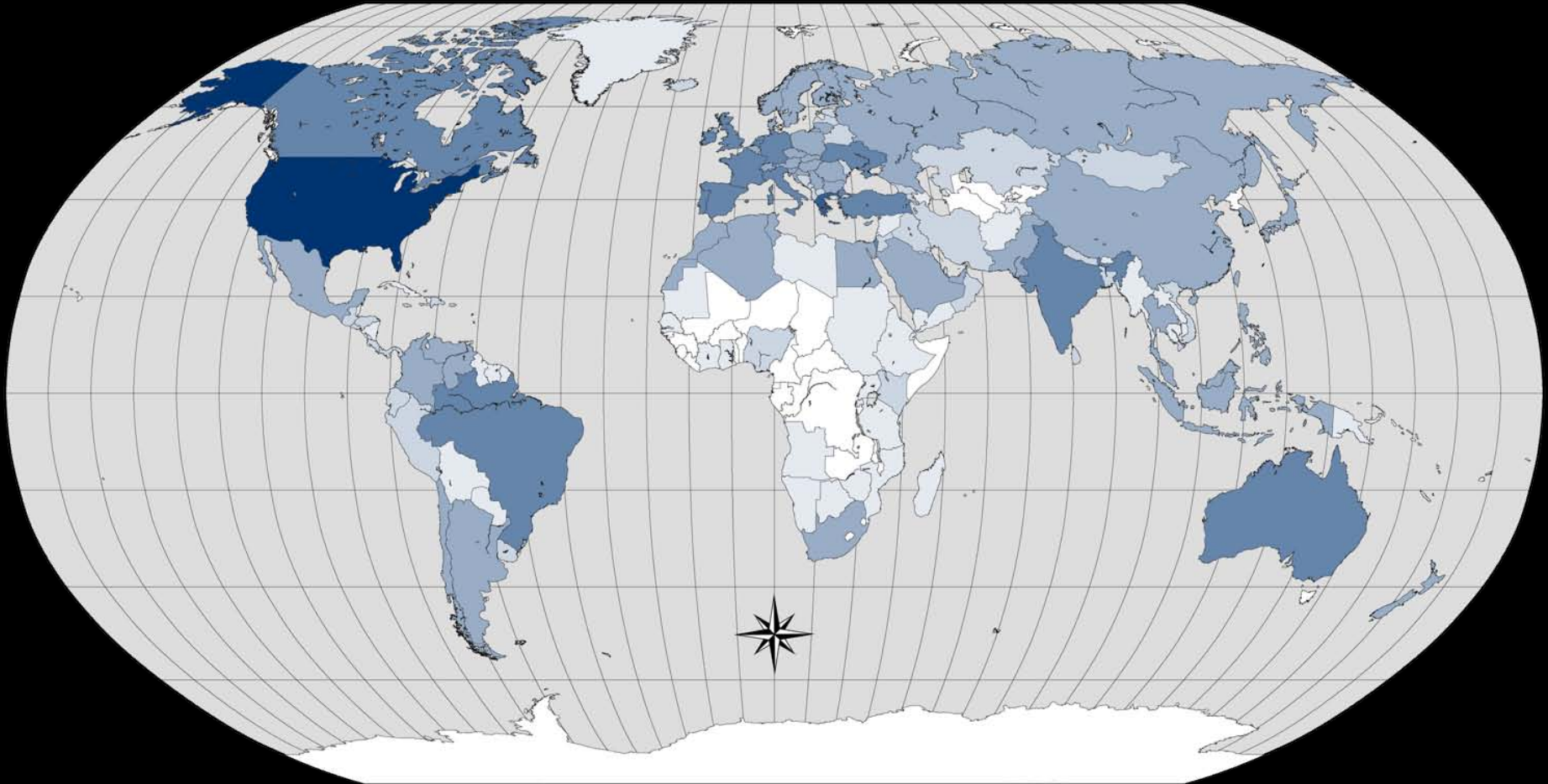
More blogs



This interactive game and other educational resources were created by The JASON Project.



# Nautilus Live Nation



2011: 173 countries (88% of all countries)

2010: 115 countries (59%)

# SCOTTSDALE, AZ BOYS AND GIRLS CLUB





**Smithfield, RI  
Public Schools**





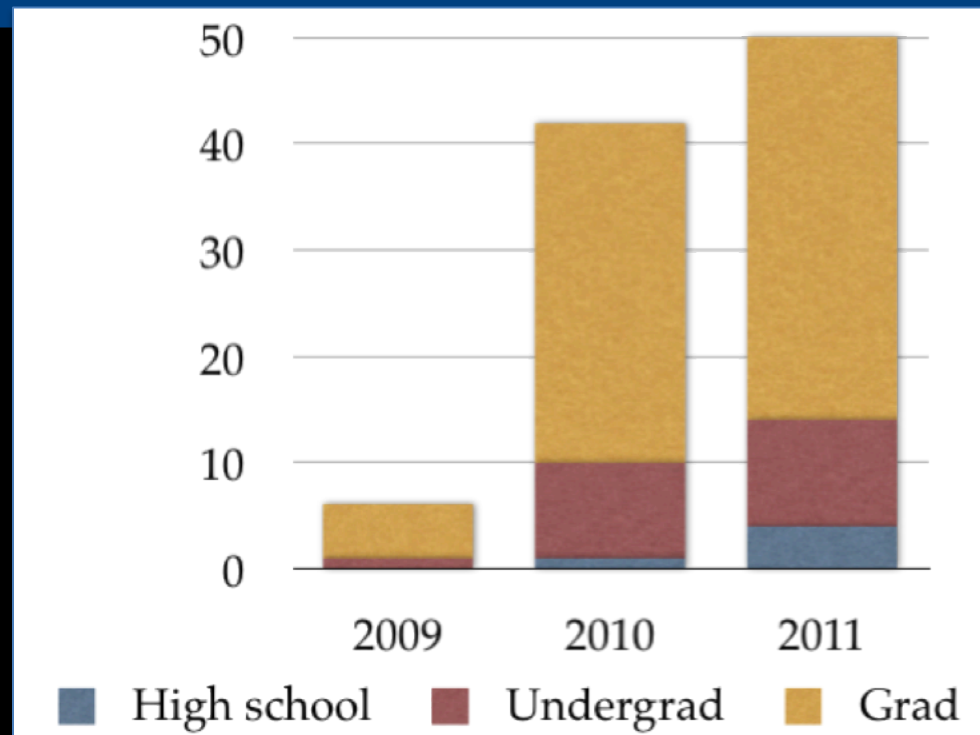
# Honors Program, Undergrad, & Graduate Interns

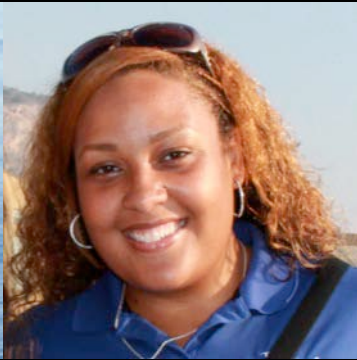
📖 81 from 2009-2011, from 11 countries

📖 Science (geology, biology, chemistry, archaeology) and engineering (mechanical, electrical, video, ocean)

📖 Stood watches as Data Loggers, Navigators, Video Engineers and Argus Pilots

📖 29% of expedition team











The  
JASON  
Project<sup>SM</sup>

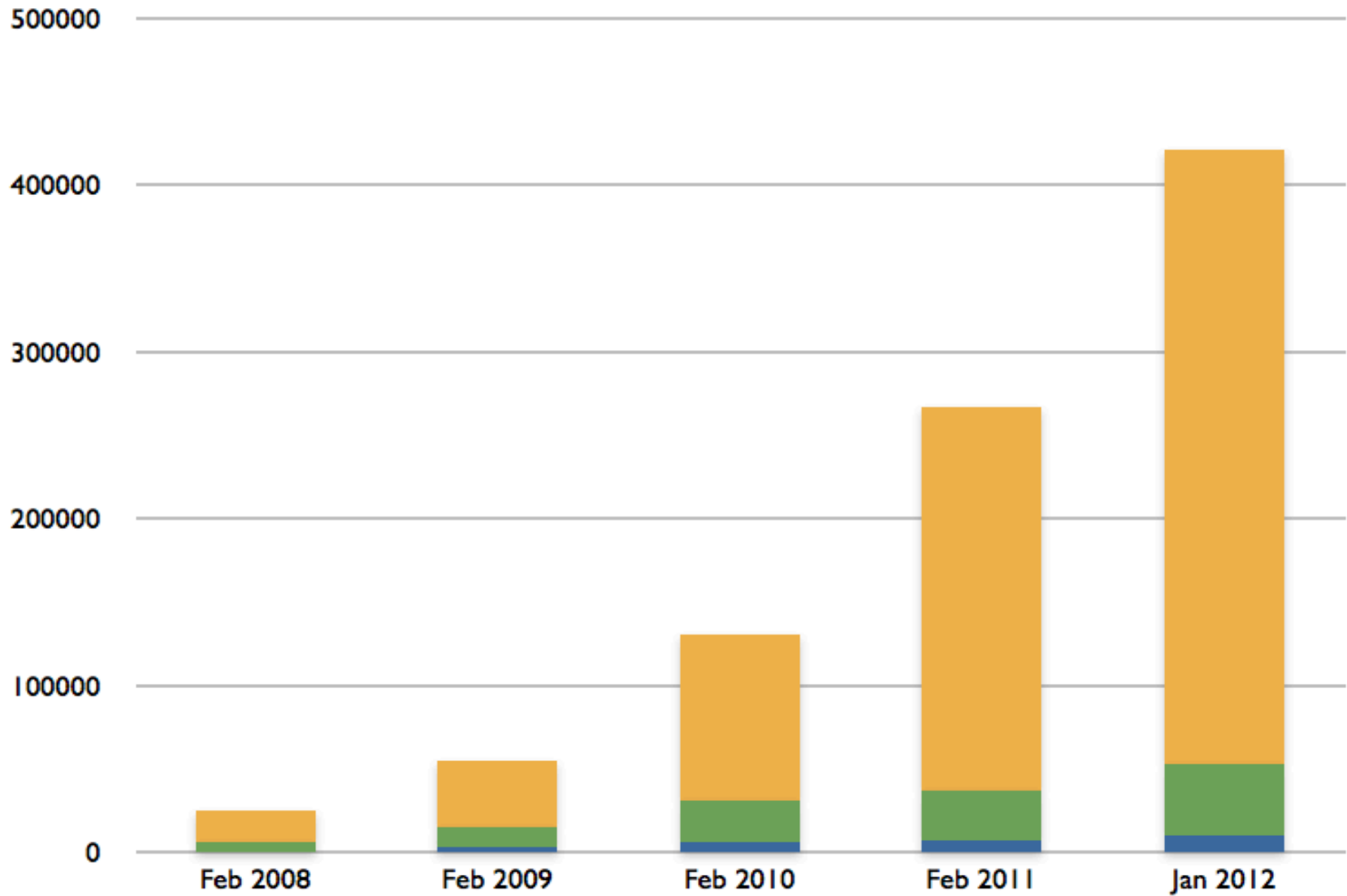


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GEOGRAPHIC**

## Total Number of Registered Users



Others Teachers Students







