

Update from Google Ocean



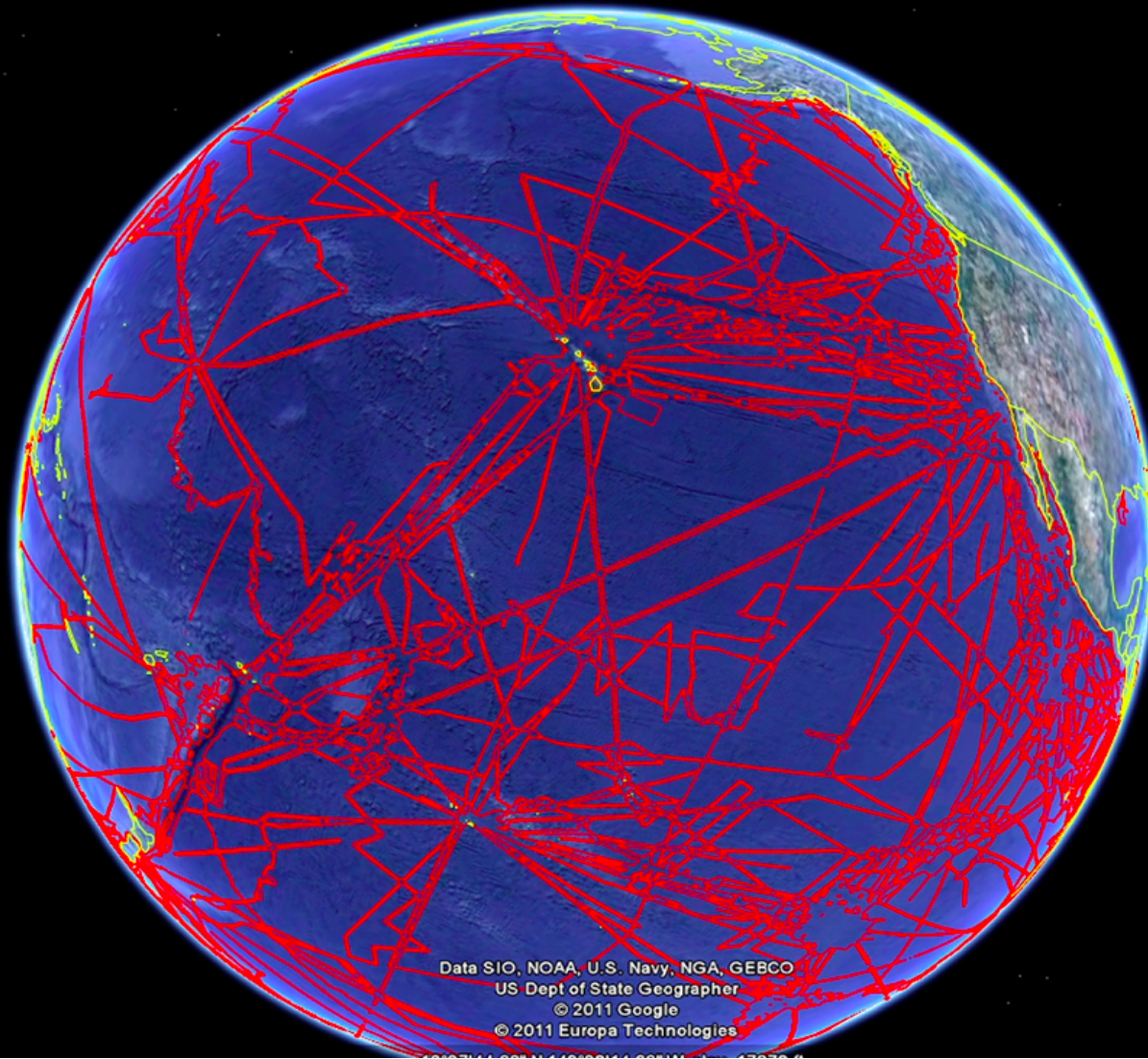
New Data, Google Maps Engine.

Jenifer Austin Foulkes

Manager, Google Ocean Program



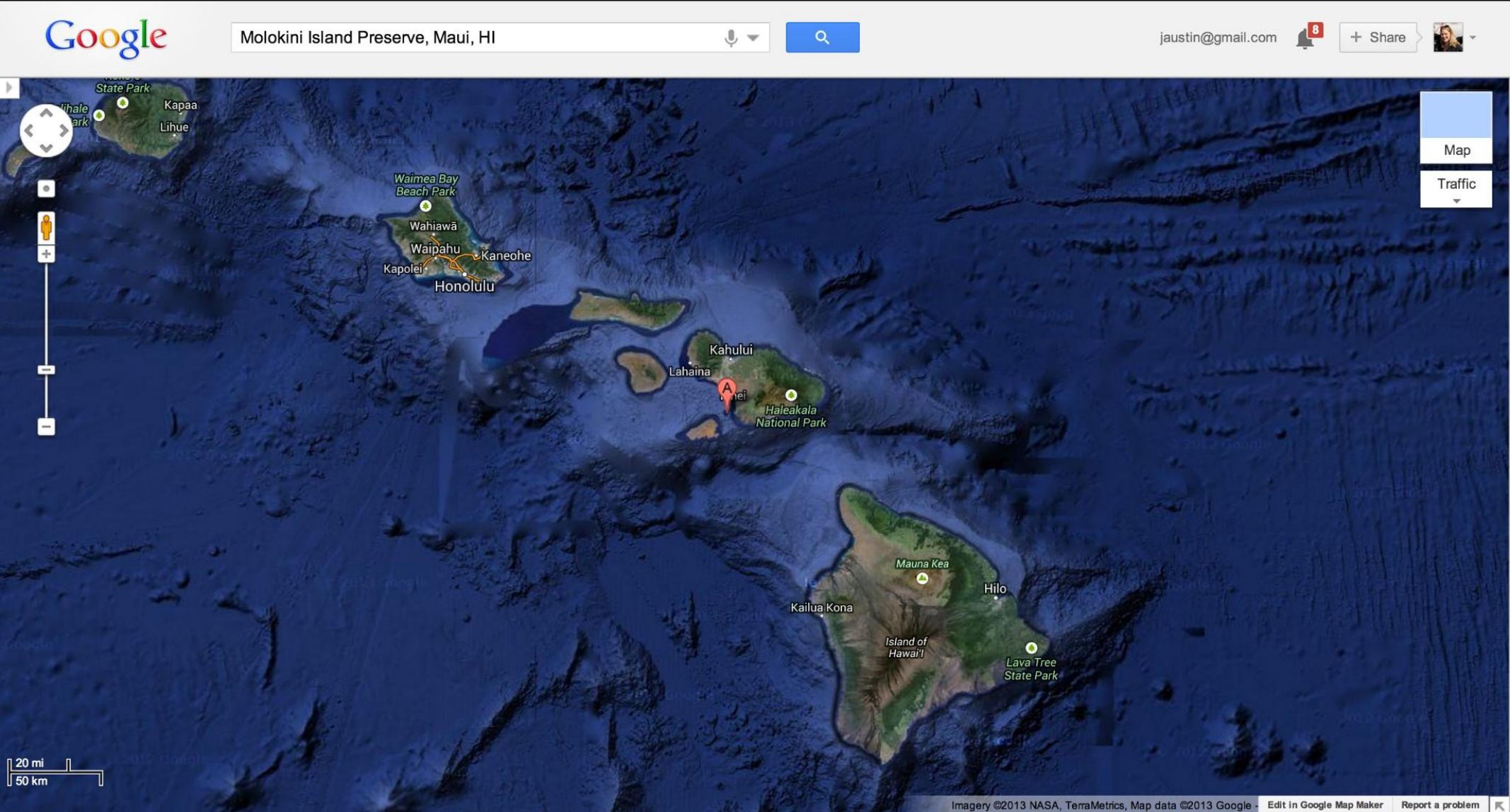
Multi-resolution ocean map in Google Earth



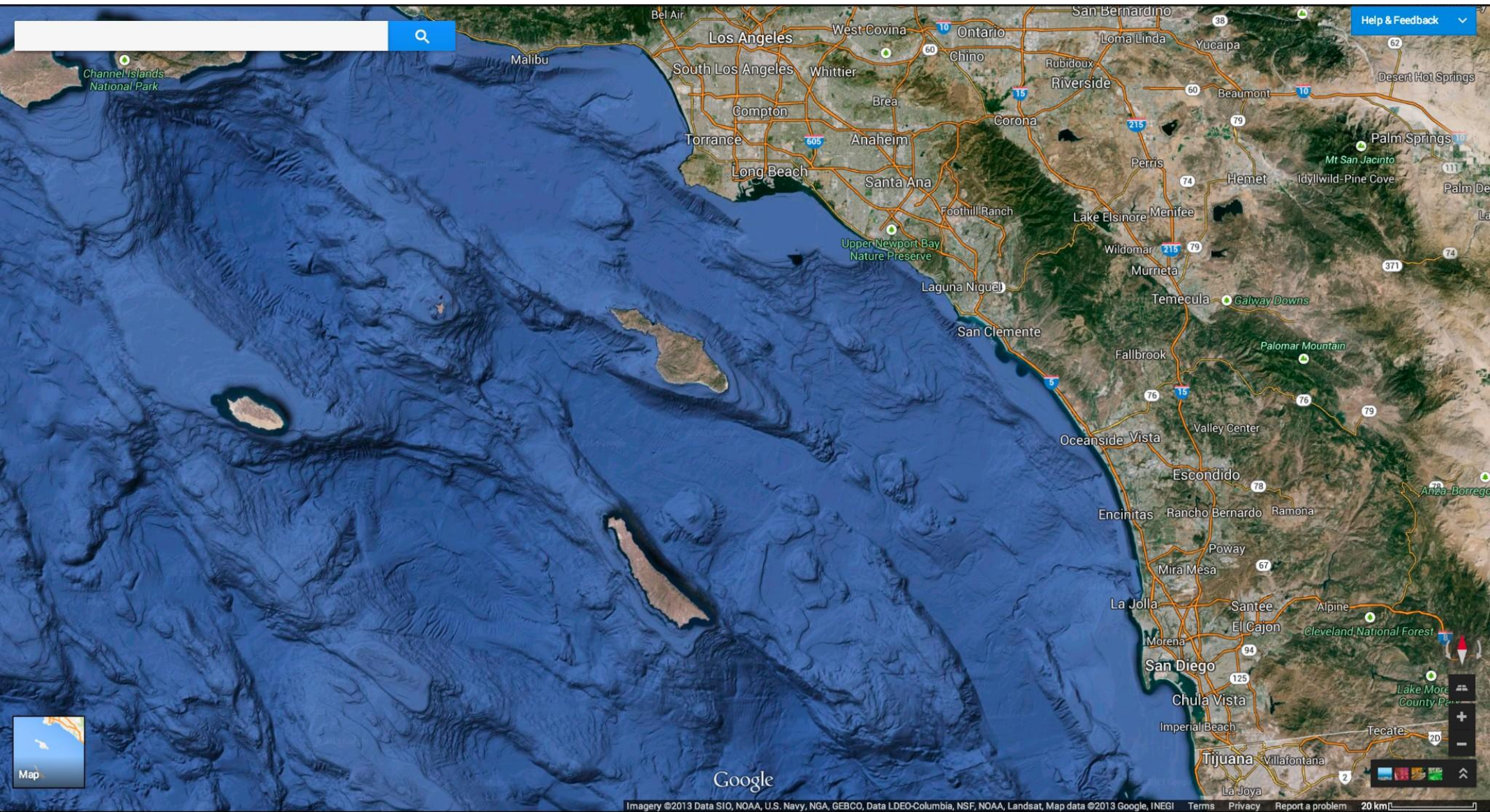
©2010 Google™



Over a billion people use Google Maps every month



New Google Maps



Ocean Map: \$3.5 billion ocean map data synthesis today.

Global 1 km, low resolution grid for the entire ocean from Scripps/UCSD/NOAA/NGA/US Navy/GEBCO. Version 4 published 2/2/2009. +Version 7 published 2/2/2012

100 meter resolution synthesis covering 5% of the ocean from Columbia University/Lamont Doherty.

+Published 6/8/2011, on World Oceans Day.

+3 MILLION miles traveled: An area larger than North America: [~16,524,000 sq km]

+Over 500 ship cruises from 20 organizations: Antarctic Support Associates, Columbia University, The Leibniz Institute of Marine Sciences at the University of Kiel (IFM-GEOMAR), Monterey Bay Aquarium Research Institute (MBARI), SHOA, Hydrographic and Oceanographic Service of the Chilean Navy, University of California at San Diego's Scripps Institute of Oceanography, University of Hawaii, University of Washington, US Coast Guard, US National Oceanographic and Atmospheric Administration (NOAA), US Navy, Woods Hole Oceanographic Institution

Other Bathymetry published in Google Ocean Map:

- University of Hawaii at Manoa 50 meter synthesis
- Japan Hydrographic Association coast 30 meter bathymetry. (Sugua Bay)
- 6 & 10 meter Massachusetts Bay data from USGS Woods Hole center.
- CSU Monterey Bay CA coastal survey out to 3 nautical miles; 1-2 meter.
- UNH/NOAA/University of Stockholm IBCAO arctic synthesis
- MBARI bathymetry- Monterey Bay 1 m, Oregon, Seamounts, Southern California
- Lake Baikal, Russia bathymetry from Universite Gent
- NOAA Great Lakes bathymetry
- Oregon State data for American Samoa & eastern underwater volcanoes and islands in W. Pacific: Tinian Island, Maug Island, Kingman Island, Johnston Atoll, Rose Atoll, Palmyra Atoll, Saipan Island, Alamagan Island (N. Marianas).
- NOAA Pacific Islands benthic bathymetry (from Hawaii)
- NOAA NGDC Gulf of Mexico bathymetry
- IBCAO Arctic Synthesis with University of Stockholm and many others.



World Ocean Day first feature of NOAA NGDC bathymetry pipeline.



Google Maps

1,763,780 people have them in circles



Google Maps

Shared publicly - Jun 8, 2013

#Ocean

On **World Oceans Day**, it's the perfect time to dive in and explore!

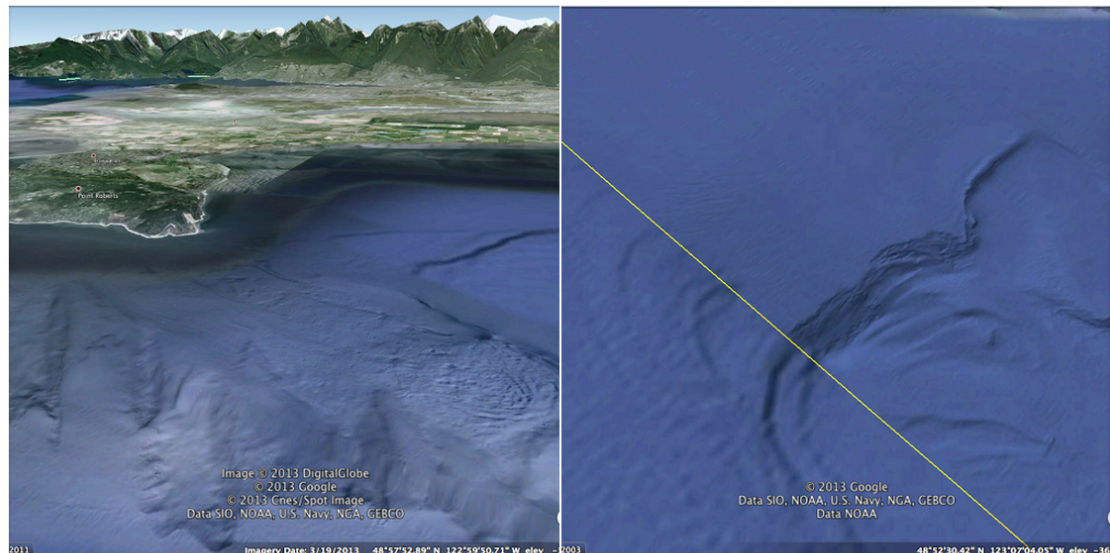
You can download a Google Earth tour list at <http://goo.gl/jyDan> - let us know if you have any favorite spots to share in the comments!

Google Earth originally shared:

Revealing the Ocean on World Oceans Day!

Here's a sneak preview of our work to improve our ocean map in Google Earth and Maps in partnership with NOAA's National Geophysical Data Center (<http://goo.gl/zZpPB>) and the University of Colorado CIRES program (<http://goo.gl/b3dGH>).

Explore more today by downloading this Google Earth tour list <http://goo.gl/jyDan>



+701

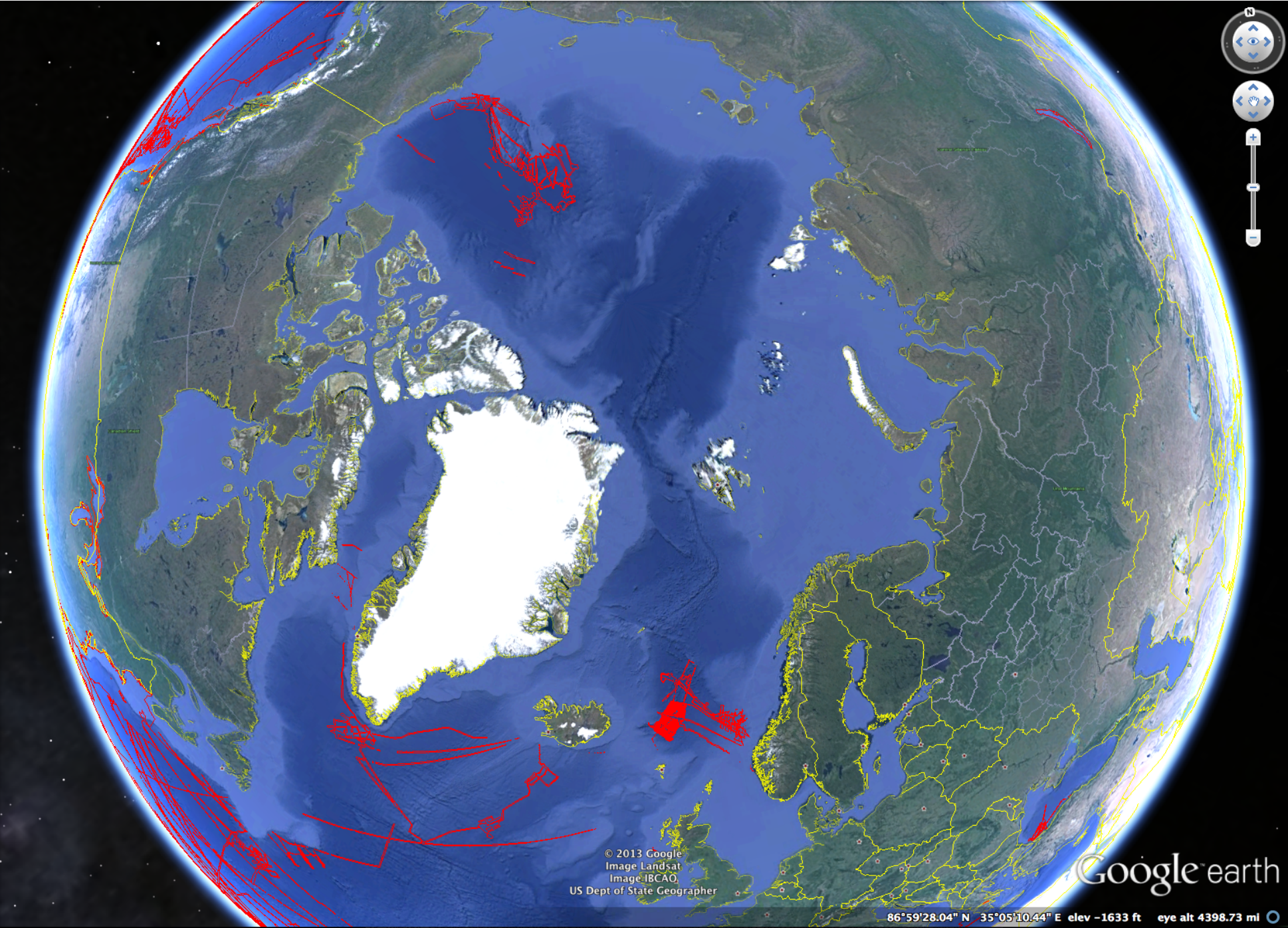
80



In Liquid Galaxy display at Oceanographic Museum in Monaco: Schmidt Ocean Institute MBARI Campache Escarpment.



Need more arctic mapping....

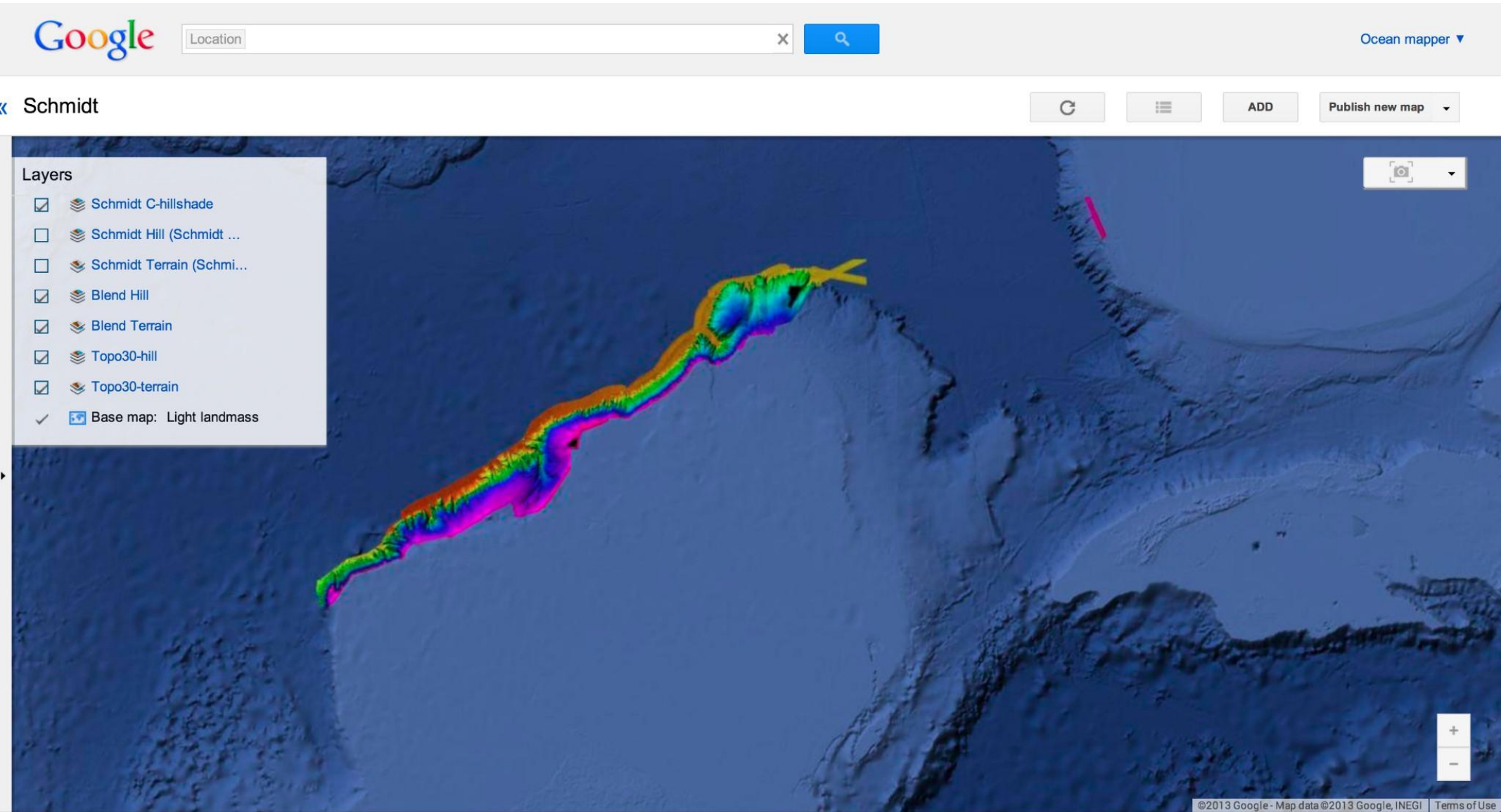


© 2013 Google
Image Landsat
Image IBCAO,
US Dept of State Geographer

Google earth

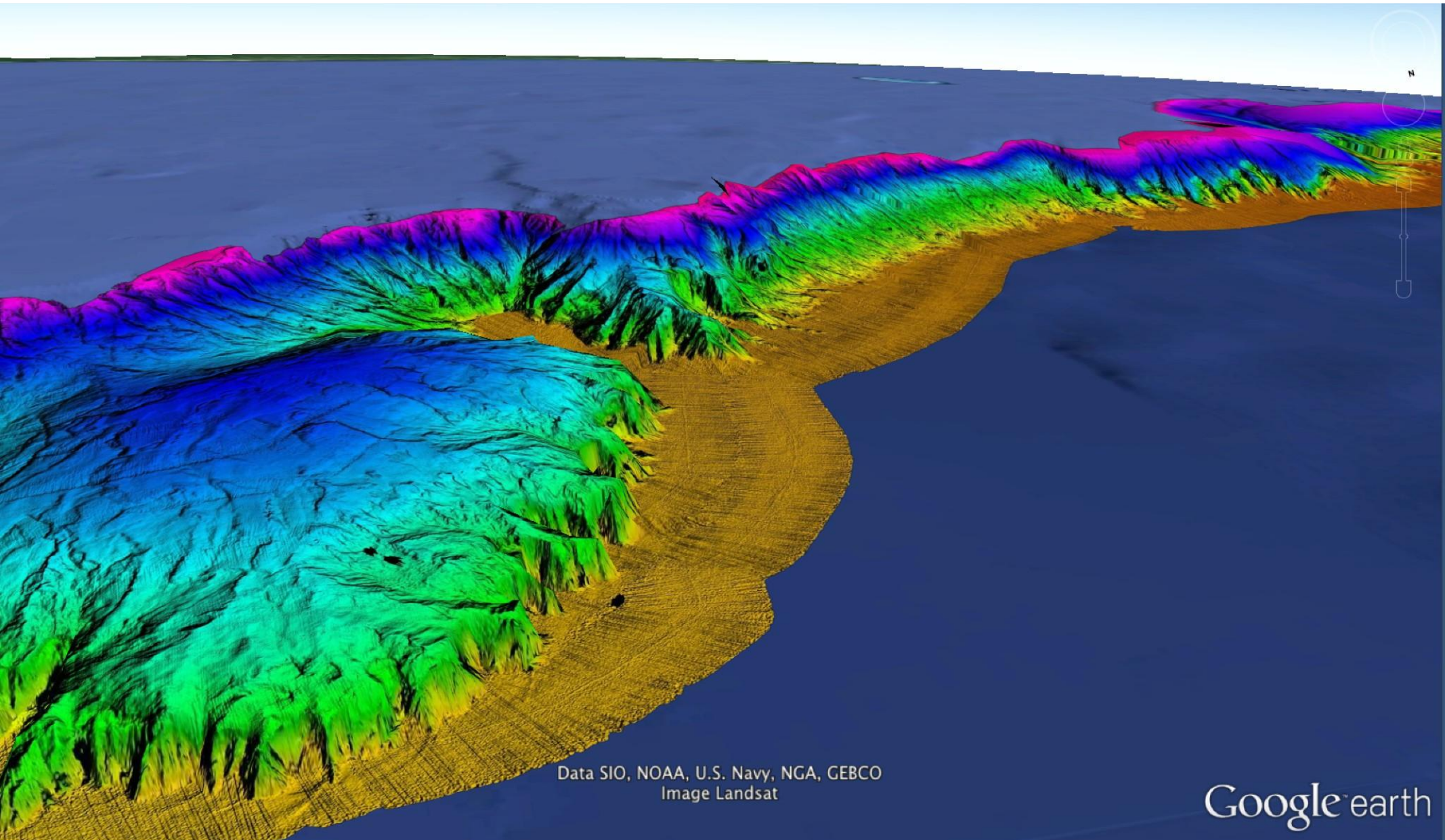
86°59'28.04" N 35°05'10.44" E elev -1633 ft eye alt 4398.73 mi

Build your own maps with Google Maps Engine



Schmidt Ocean Institute- MBARI: KT Boundary Gulf of Mexico Survey: understanding the asteroid impact that wiped out the dinosaurs: <http://www.schmidtocean.org/story/show/1185>.

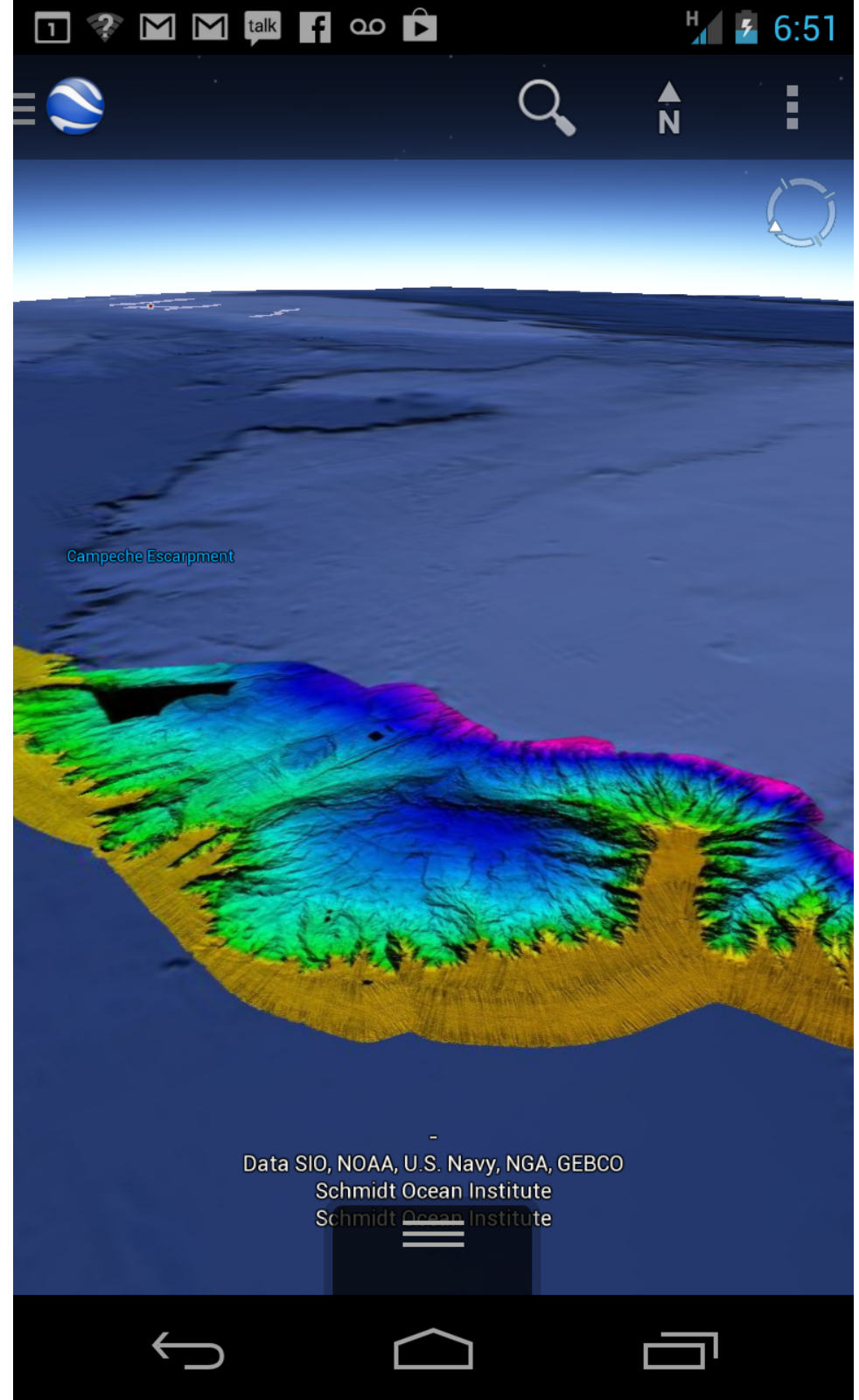
View your own terrain synthesis built with Google Maps Engine in 3d in Google Earth



Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image Landsat

Google earth

Send to a mobile device



Google Maps Engine Grant.



Google Maps Engine for Nonprofits & Researchers

[Google Earth Pro](#)

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[Google Maps Engine](#)

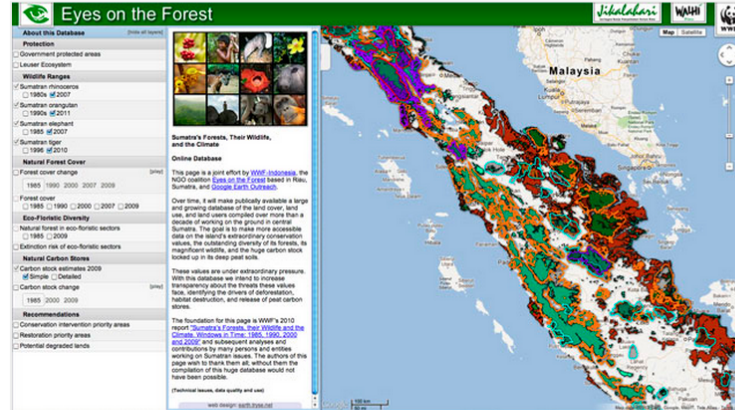
As a part of Google Earth Outreach, we grant Google Maps Engine licenses to qualifying organizations who demonstrate a need to host, style, manage and publish their geospatial data in the cloud. Google Maps Engine has a rich set of capabilities for cloud-hosted spatial data management, cartographic styling, publishing and access control.

Google Maps Engine is for organizations who have lots of raster and vector data and are excited to use the cloud-based infrastructure to store, process and publish this data. Set different access permissions for who can view, edit, or publish your map data.

[Learn more about Google Maps Engine.](#)

[Apply for a Grant](#)

Before applying for a grant, make sure the product will meet your needs! [Learn More](#)



WWF and Eyes on the Forest use Maps Engine to show deforestation in Sumatra

WWF and its Sumatran partner organization, Eyes on the Forest, are using Google Maps Engine to document historical rates of deforestation in Sumatra and how the habitat of endangered tigers, rhinoceros and elephants are literally shrinking before our eyes.

"Google Maps Engine gives us the ability to take all this information that we have crammed into computers all over the world and to get it up on the cloud and to serve it up on a platform where people can ask for the information they want and use it to tell stories that are powerful." - Carter Roberts, CEO of WWF

[Read the full case study](#)

Google Maps Engine Grants accounts include:

- 10GB Storage quota for raster and vector datasets
- 250,000 internal pageviews
- 10 Million external pageviews for publishing data on public-facing websites
- Technical Support (however, the support team will prioritize paying customers over grantees)

Eligibility and How to Apply

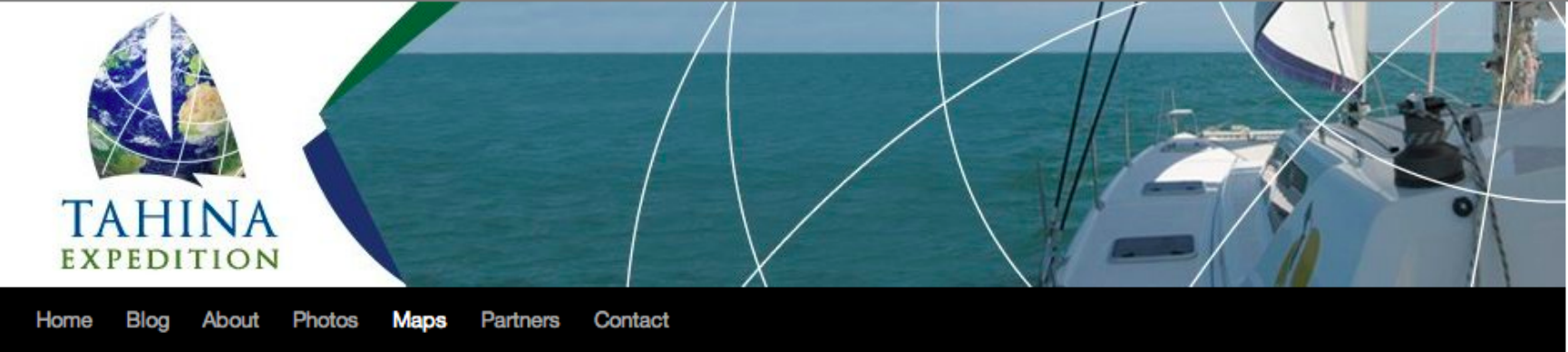
Nonprofits: All organizations must be able to provide proof of charitable tax-exempt status and meet our [Policy Guidelines](#).

In the United States - Click "Apply for a Grant" above to apply for Google Maps Engine. It may take up to 3 months for your Maps Engine grant request to be reviewed.

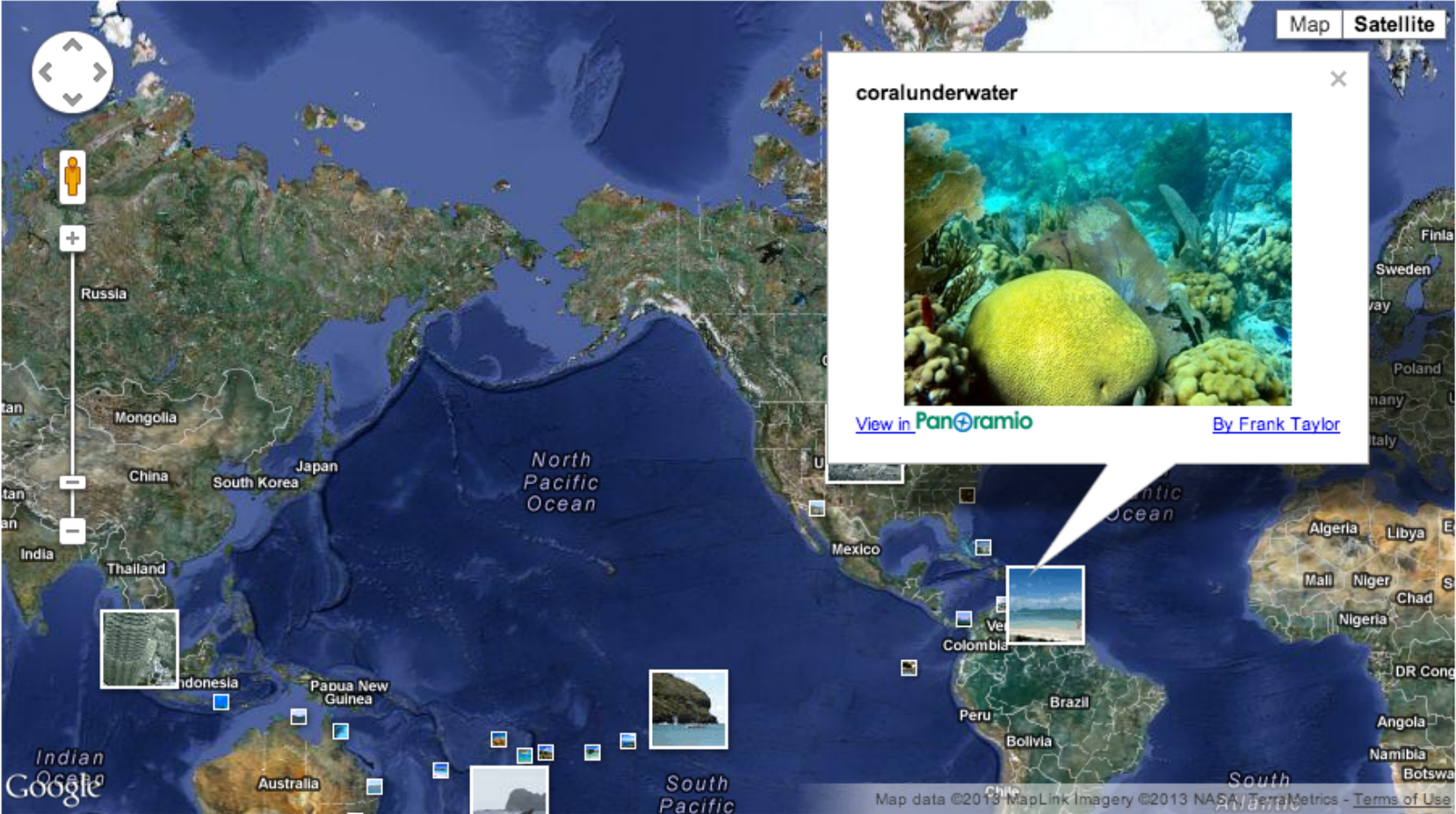
To be eligible for a grant, organizations must have current [501\(c\)\(3\) status](#), as assigned by the Internal Revenue Service and meet the other Google for Nonprofits [eligibility requirements](#). Please click on the "Apply for a Grant" link above to apply.

Academic Research Departments: Academic faculty must be using the product for research purposes (not for teaching or classroom use - we are working on offering a

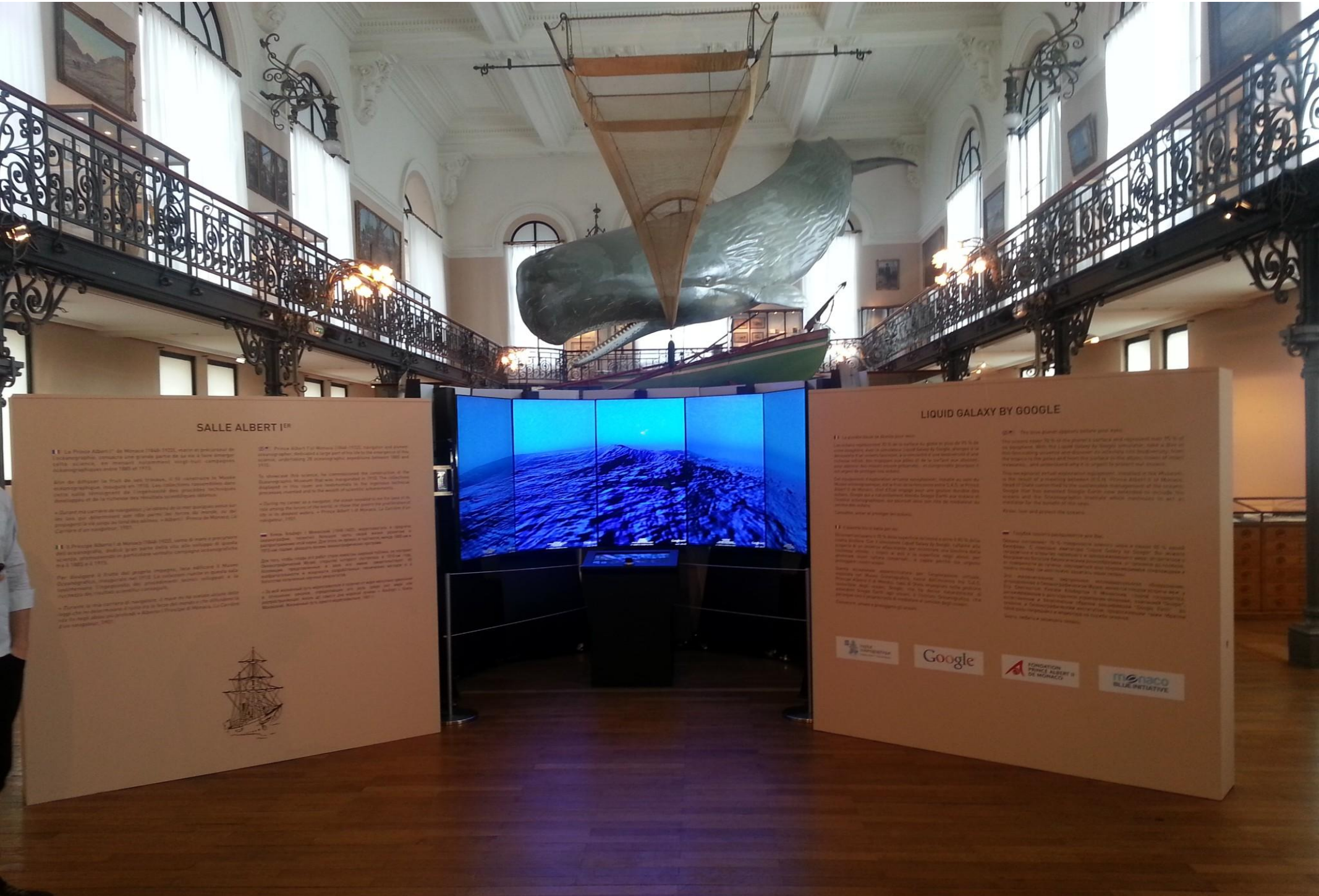
Embed maps api on your site.



Panoramio Map



Liquid Galaxy @ Oceanographic Museum in Monaco



SALLE ALBERT I^{er}

Le Prince Albert I^{er} de Monaco (1848-1922), marin et passionné de géographie, inaugure une grande partie de ce qui à l'époque est le plus grand musée de Monaco, en réunissant notamment deux vastes collections océanographiques entre 1902 et 1910.

Mais des décennies de travail de ses prédécesseurs, le Prince Albert I^{er} de Monaco, ont permis de constituer une collection océanographique d'exception, qui constitue le cœur de ce musée.

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LIQUID GALAXY BY GOOGLE

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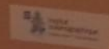
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Liquid Galaxy Google Plus hangouts on Air

YouTube



Upload



GUIDE

Google's Ocean Program Plus Hangouts on Air by Jenifer Austin

4/16

Bob Ballard joins us in Liquid Galaxy Google Ea... by Jenifer Austin


5 Bob Ballard joins us in Liquid Galaxy Google Ea... by Jenifer Austin

6 Bob Ballard joins us in Liquid Galaxy Google Ea... by Jenifer Austin


7 Bob Ballard joins us in Liquid Galaxy Google Ea... by Jenifer Austin

IUCN Google Ocean Storytelling Panel Jeju, Korea 2012 by Jenifer Austin


1/19



1:25 / 3:15



Google+




19:43 / 26:26

<http://goo.gl/biwly>

Explore the Ocean education layer in Google Earth.


The image shows a Google Earth interface with an ocean education layer overlaid on a satellite view of the Venetian lagoon. The layer consists of various colored lines (yellow, green, purple) tracing the coastline and lagoon boundaries. A pop-up window is open over the Venice area, displaying information about the 'Saving Venice' project. The window includes a title, a source link, a photograph of Venice, a descriptive paragraph, a 'Learn More' section with links, and a 'Curated by' logo for MISSIONBLUE. The background map shows labels for cities like Modena, Ferrara, Rovigo, Adria, Chioggia, Mirano, Mestre, Venice, and Treviso, as well as provinces like Province of Rovigo, Province of Venice, and Province of Vicenza. The Google Earth interface includes navigation controls on the right and a status bar at the bottom with coordinates and elevation data.

Saving Venice
[Scripps Institution of Oceanography/UC San Diego](#)



The historic city calls upon Scripps and a multifaceted team of experts to help decipher the mysteries lying beneath its waters. Venice officials must consistently grapple with environmental issues related to sediment processes, as the shallow lagoon must continually be dredged to allow a steady stream of commercial vessels and cruise ships.

Learn More:
[Scripps Institution of Oceanography](#)
[Saving Venice](#)
[Scripps' Explorations E-magazine](#)

Curated by 

Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image Landsat
© 2013 Google
© 2009 GeoBasis-DE/BKG

Google earth

45°18'56.74" N 12°26'00.62" E elev -56 ft eye alt 20.79 mi

Explore the Ocean education: Mission Blue site.

MISSION BLUE
SYLVIA EARLE ALLIANCE

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italy Discover ocean stories around the globe. Search or explore on your own. [ShareThis](#)

Natural Acidification Near Ischia

Mount Vesuvius and the Island of Ischia

Mount Vesuvius is an active volcano that has created a naturally acidified area off the coast of Ischia, Italy that has existed for millennia. Marine ecologist Dr. Jason Hall-Spencer (University of Plymouth, UK) studies this area, saturated in carbon dioxide, as a microcosm of what the future sea might be.

[Learn more about ocean acidification](#)
[Read Dr. Jason Hall-Spencer's bio](#)
[See photographs on location in Ischia, Italy](#)
[Make a One Ocean Pledge to reduce your carbon emissions](#)
[Play games in your own undersea habitat](#)

Credits: [One Ocean Interactive](#) [Canadian Broadcasting Corporation](#) [National Geographic Channel](#) [Science Channel](#)

Image Landsat

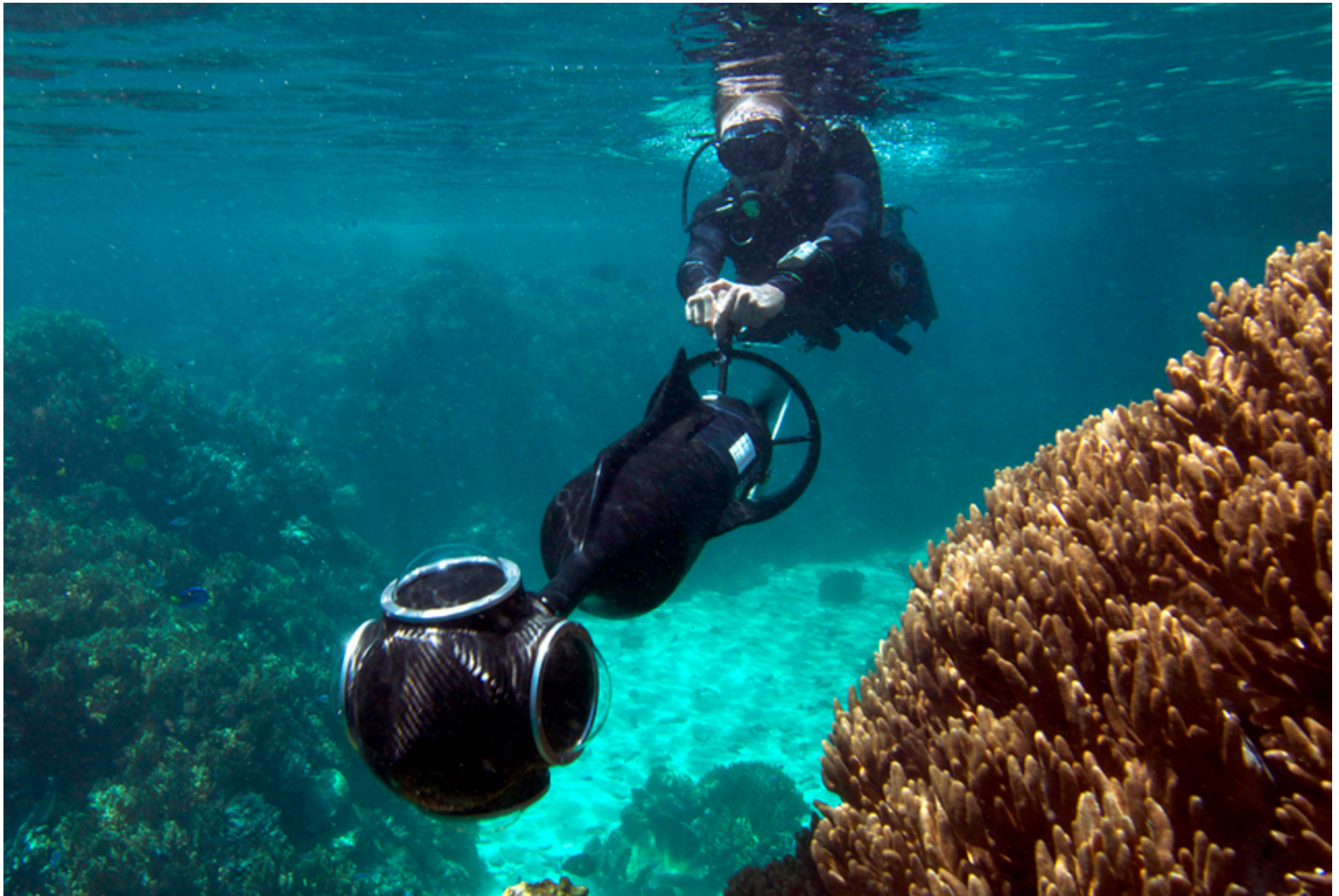
Cloud hosting global satellite AIS ship tracking data.



<http://goo.gl/3kZuk>

Spacequest.

Underwater Earth's Catlin Seaview Survey: Reveal the reefs.






Underwater Streetview

<http://youtu.be/7syWPIZt9B4>


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- More

Catlin Seaview Survey

Following



Catlin Seaview Survey Apr 2, 2013 (edited) - Public


360 Panorama: Philippe Cousteau & CNN at Wilson Island


Pictured here is the host of CNN's "Going Green" program Philippe Cousteau driving a Catlin Seaview Survey scooter in front of a huge 500 year old hard coral.

This image was captured by the SVII camera last year on Wilson Island when CNN came to film our project. You can catch the documentary as part of CNN's 'Going Green Ocean's week'.


Read more about the survey here: <http://www.catlinseaviewsurvey.com/>


[#photosphere](#) [#CNN](#) [#goinggreen](#) [#cousteau](#)








[www.catlinseaviewsurvey....](http://www.catlinseaviewsurvey.com/)

+1  **+3,002,707**

 [View full profile](#)

Mute Catlin Seaview Survey
Report / block Catlin Seaview Survey

+1   **+799**  **171**

Onward and downward.

