HYDROGRAPHY

RESPONDING TO A CRISIS

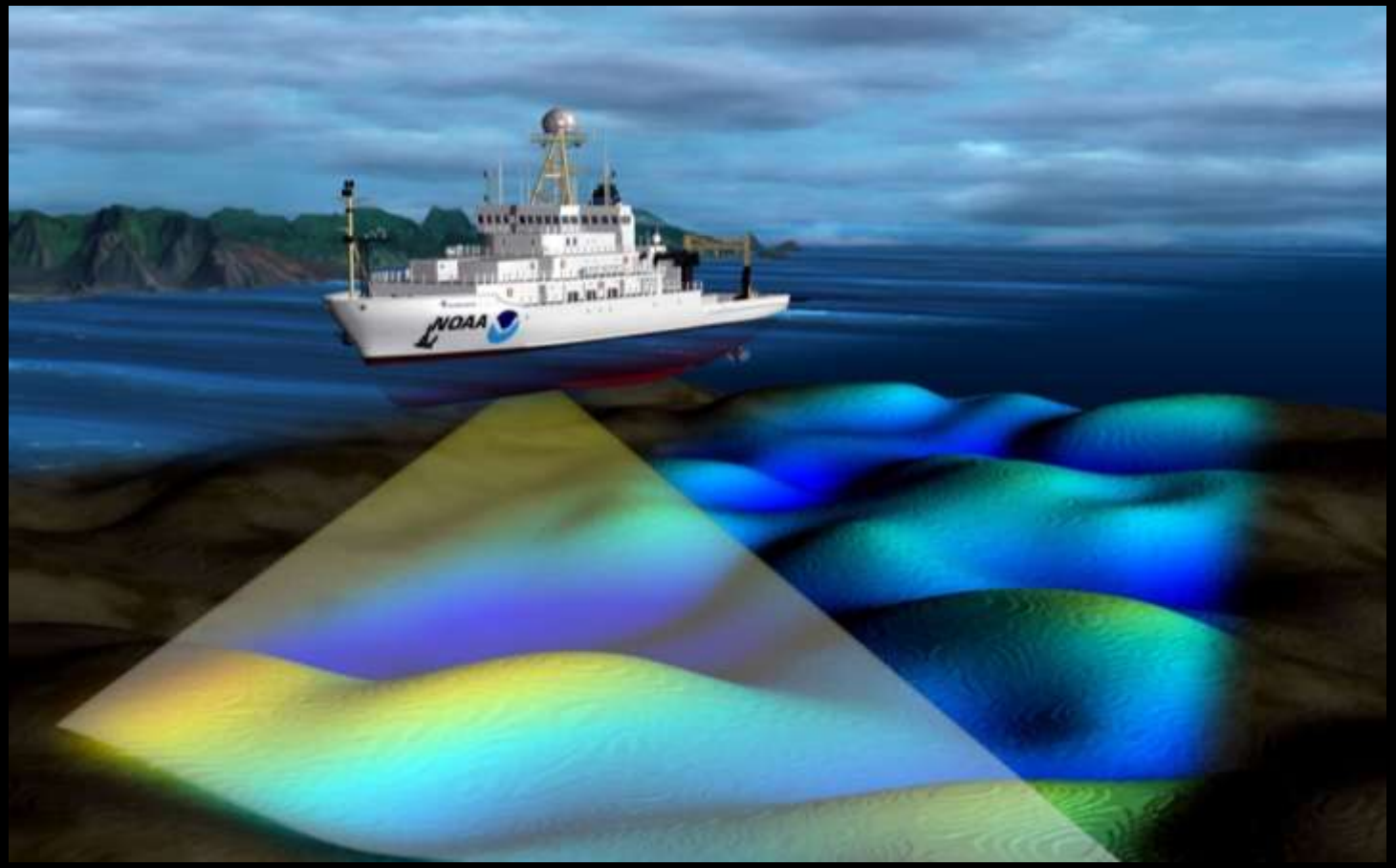
Captain John Lowell

U.S. Hydrographer

NOAA Office of Coast Survey

MODIS image of Gulf oil spill, June 9, 2010

Office of Coast Survey



Hydrography is known for its contribution to mapping the depths and configurations of the seafloor. In a crisis that **isn't** necessarily a navigational hazard, can hydrography rise to the challenge? Can we use hydrography to bring more reliable data to the many questions swirling around this environmental catastrophe?

When a crisis hits, what contribution can hydrography make? How do we help protect our coastal shorelines?

What role can hydrography play in the fight to protect against the destruction of life?

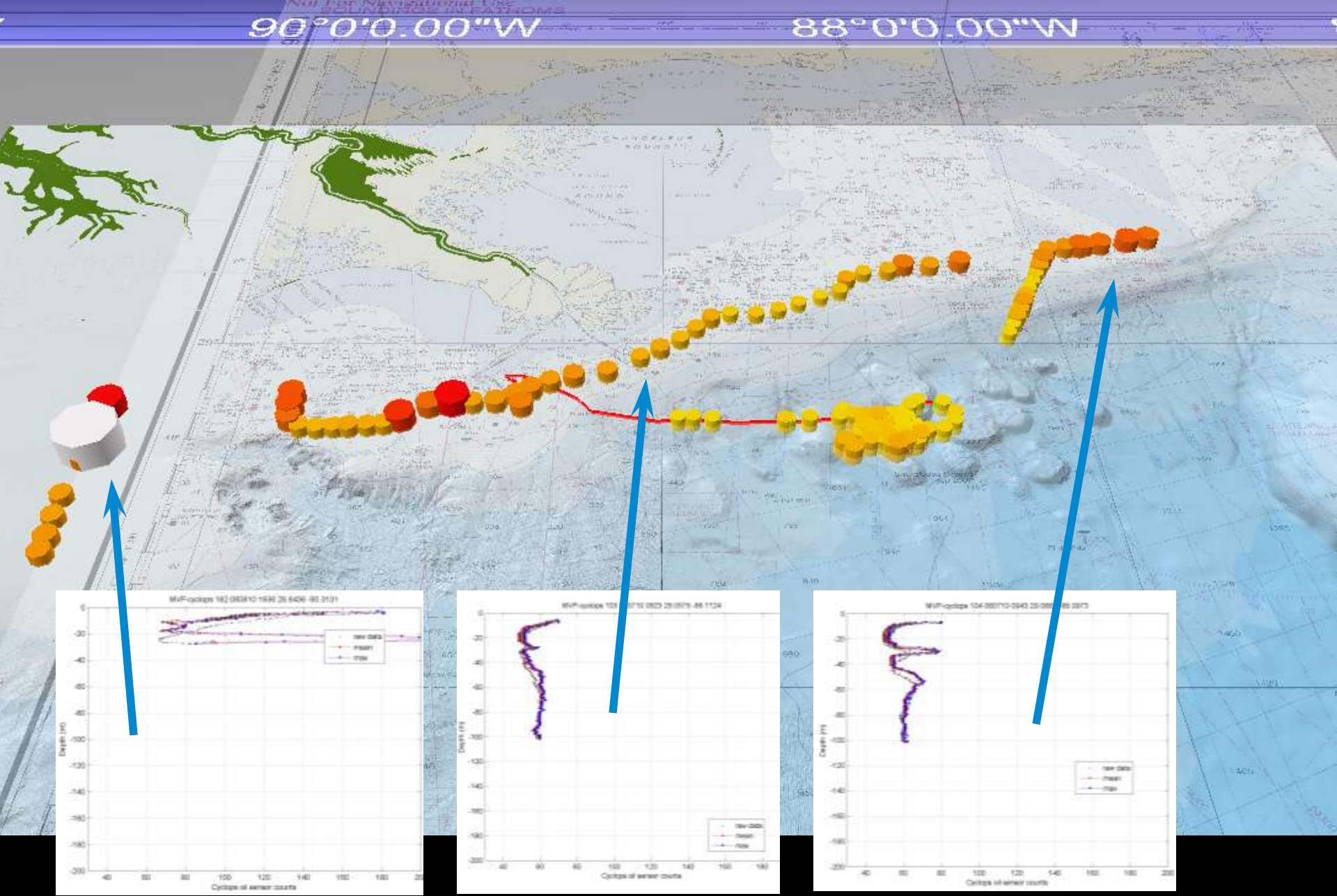
TJ, Leg 1: May 17-27 Enhanced capabilities to assist with spill: deployed gliders, collected fisheries acoustic data on spill site.

TJ, Leg 2 Objectives:

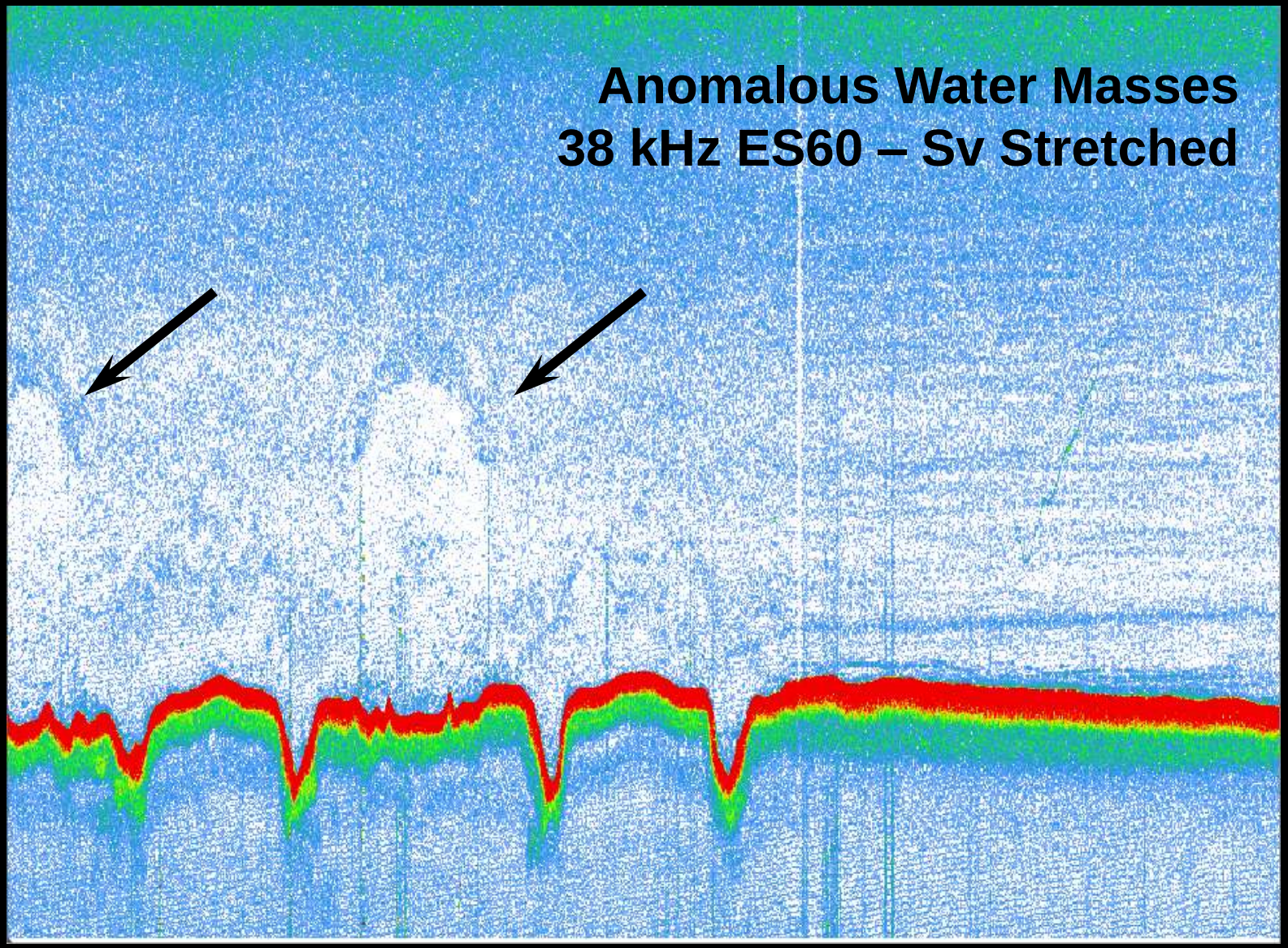
Establish a methodology for detection of oil plumes with sonar and in-situ measurements.

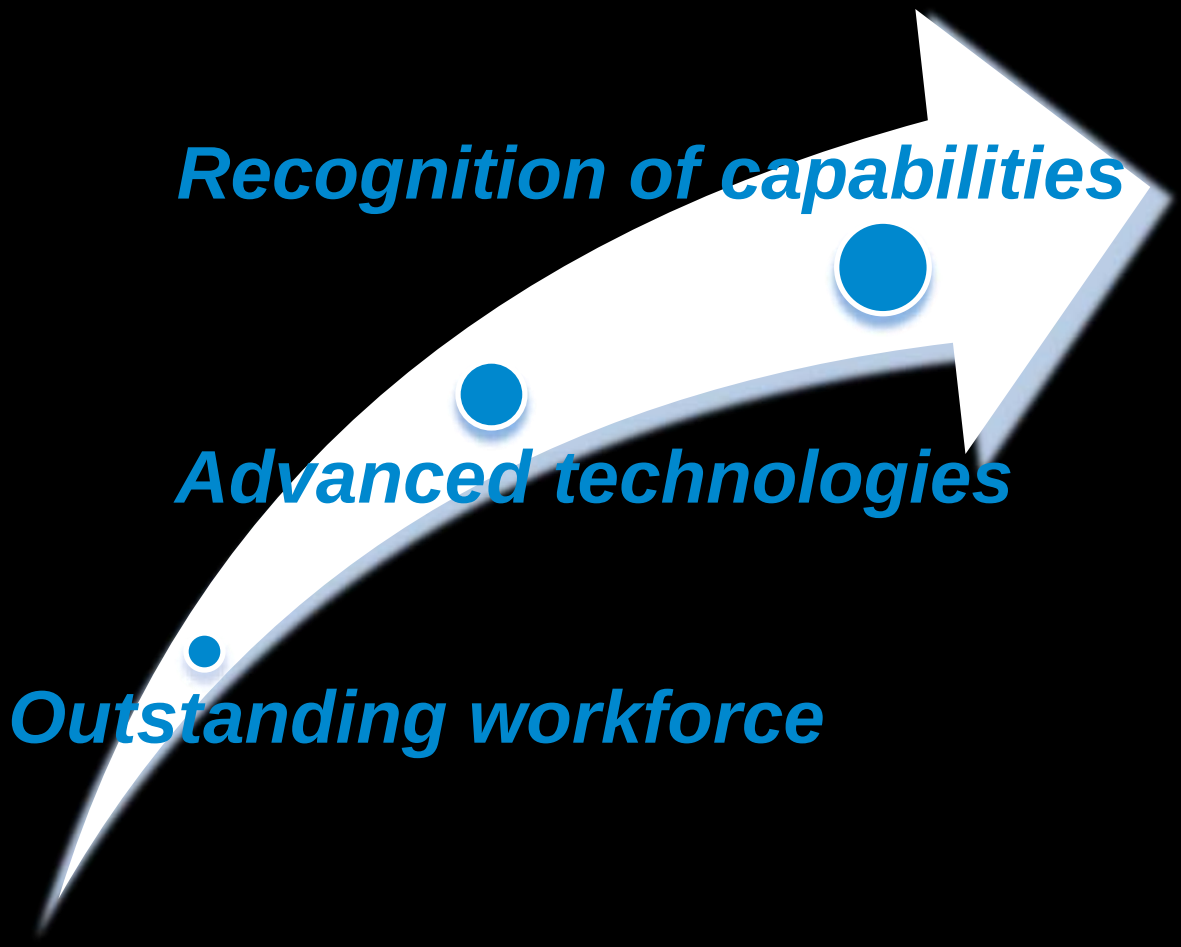
Study the plume movement in the vicinity of the DWH site.

Monitor oil flux moving west.



MVP Exploratory Transect
(colored by max fluorescence below 20m)


Anomalous Water Masses
38 kHz ES60 – Sv Stretched

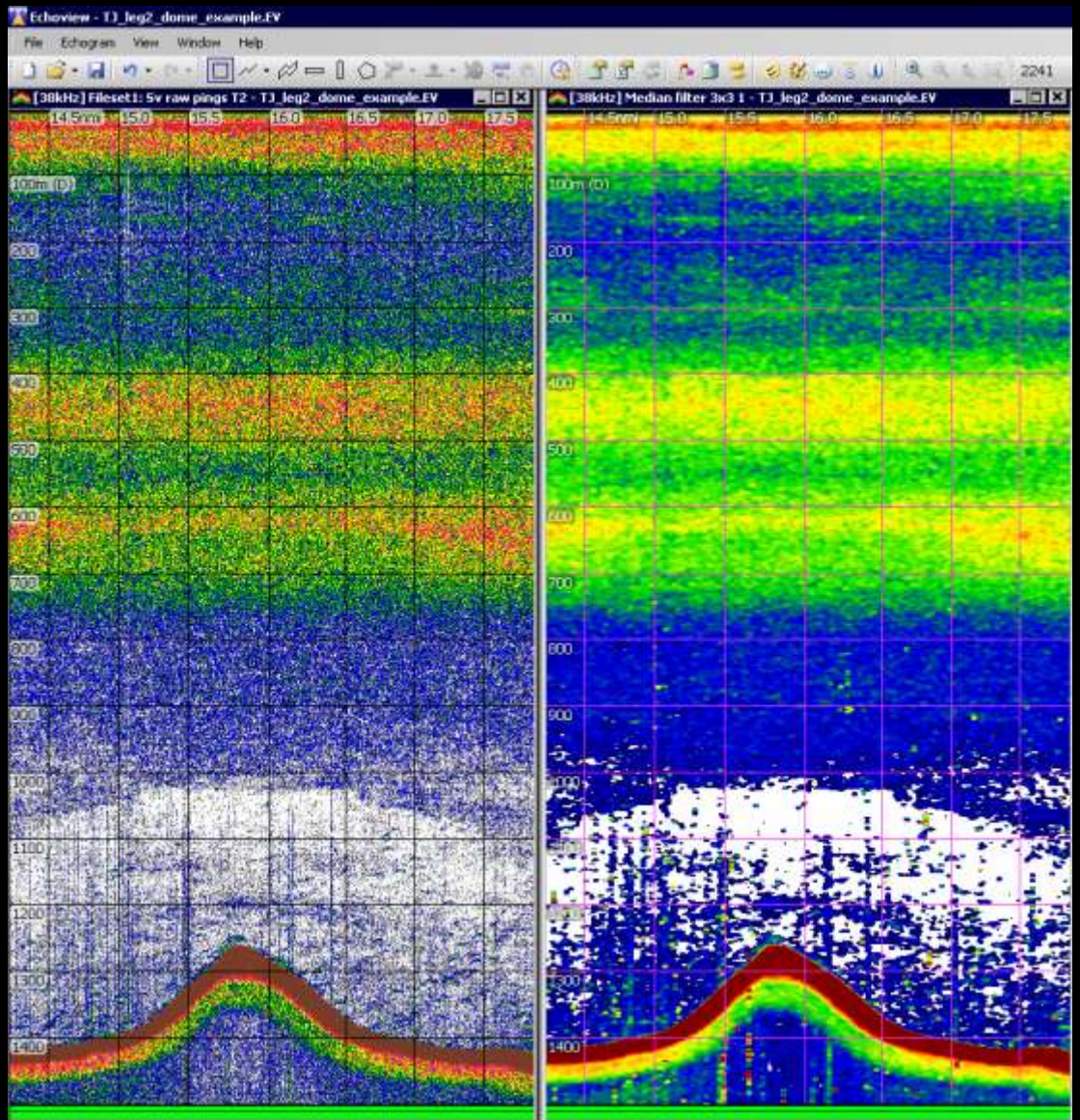


Hydrography is the difference in crisis situations

Outstanding workforce responds to crises, thinks collaboratively and creatively

Office of Coast Survey

Advanced technologies provide capability for acting on workforce creativity



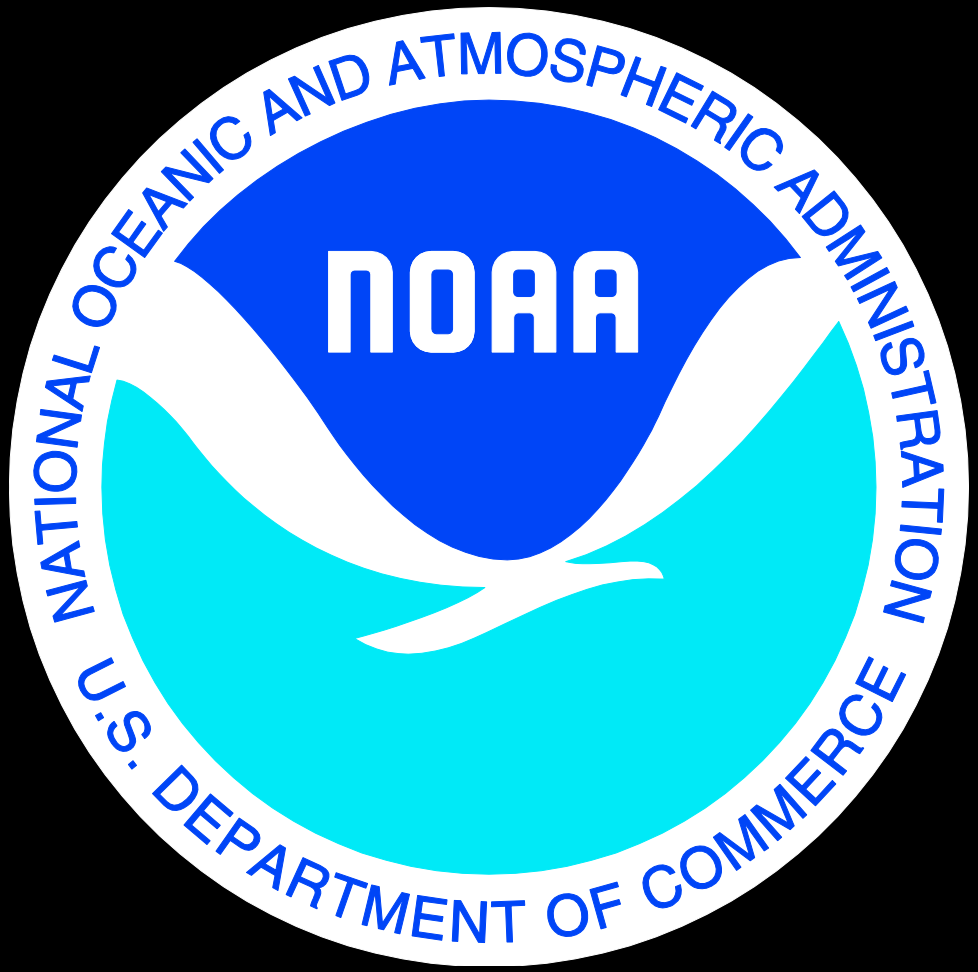
Deep scattering layer

Low backscatter

Informed leadership recognizes the capabilities and possibilities

Hydrography has the people,
the knowledge,
and the wherewithal
to meet
today's challenges

and tomorrow's opportunities.



Several of the images were obtained from a report issued by CDR Smith and Dr. Mayer. on the NOAA Hydrographic Vessel, the THOMAS JEFFERSON. Their report is now available online at: http://www.noaa.gov/sciencemissions/PDFs/tj_deepwaterhorizon_responsemissionreport_june3_11_2010final.pdf