
PLANNING FOR THE FUTURE

John Orcutt: Chair, MSROC



HAROLD SVERDRUP & WALTER MUNK

In creating a UCLA branch of the Institute of Geophysics at Scripps, the directions were broad: “Geophysics is used here in its broadest meaning as a term to comprise the sciences of meteorology, including the general physics of the atmosphere; physical oceanography; hydrology; seismology; vulcanology, and certain aspects of geology.”

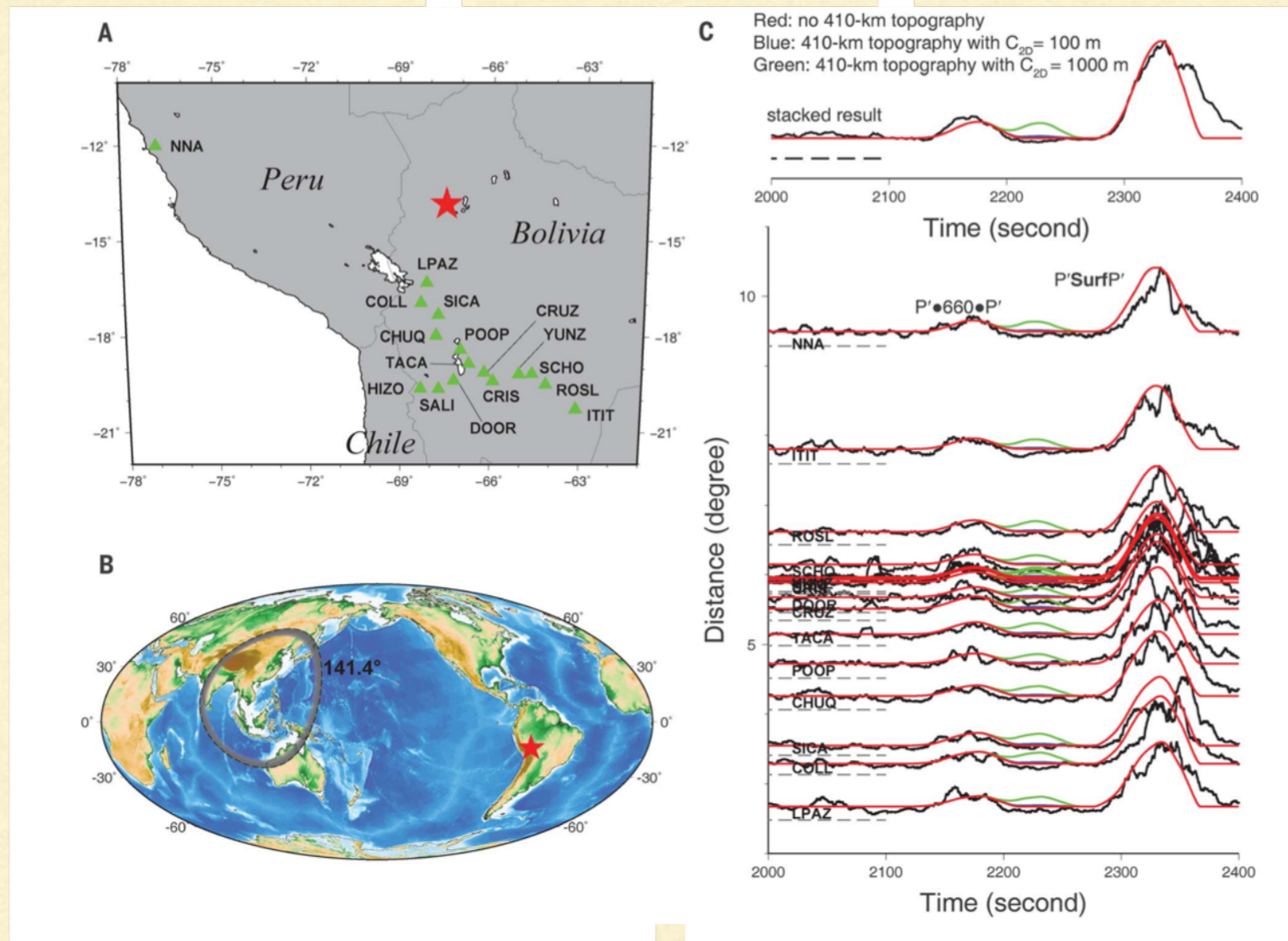
CARL WUNSCH MIT/HARVARD

QUOTE FROM WALTER

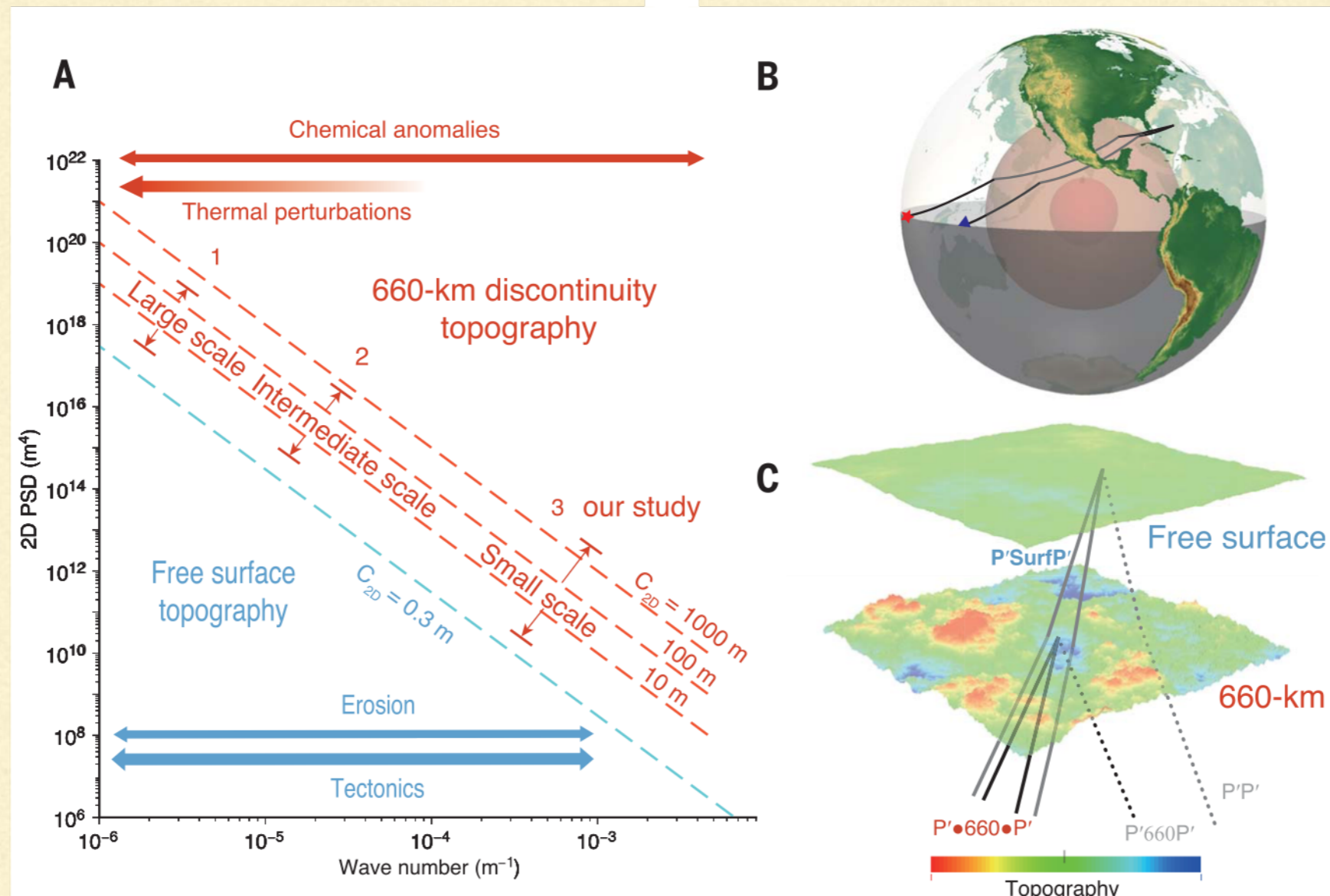
“I had never been a good experimentalist, but I do have a firm belief that nearly all the good things that happened in geophysics and oceanography really followed rather than led the development of new methods or measurements. You know, the idea about somebody having a theory and then building a piece of gear to check it, and then find out that it was right, sort of never happened in my experience. “

Carl Wunsch (MIT/Harvard): *And consider how the technology changed in both geophysics and physical oceanography between 1939 and 2019. He rode the tiger!*

INFERRING EARTH'S DISCONTINUOUS CHEMICAL LAYERING FROM THE 660-KM BOUNDARY TOPOGRAPHY; WINBOW WU; SCIENCE, 2019



WU, WENBOW; SIDAO, NE; IRVING, JESSICA



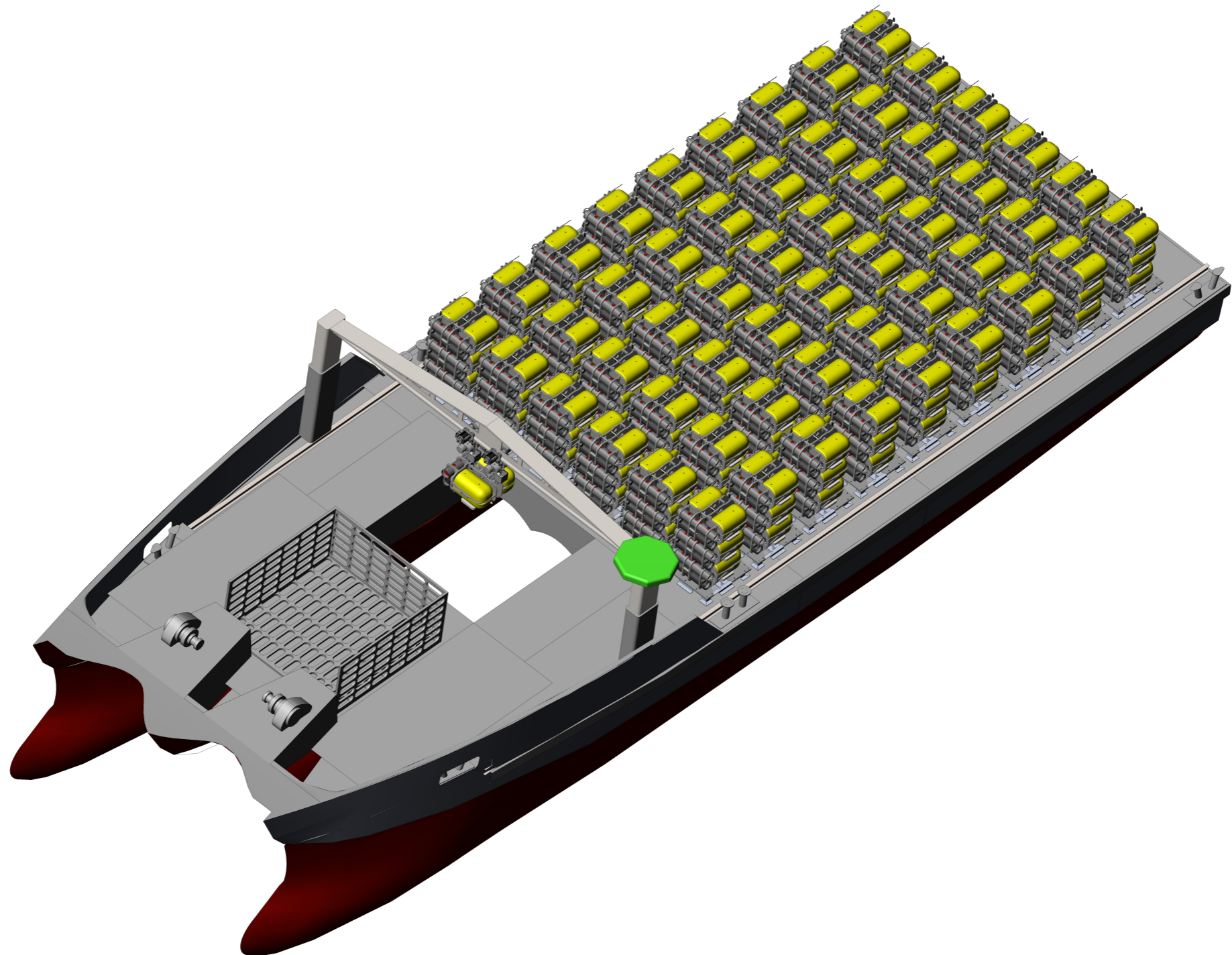


SEA
HUNTER

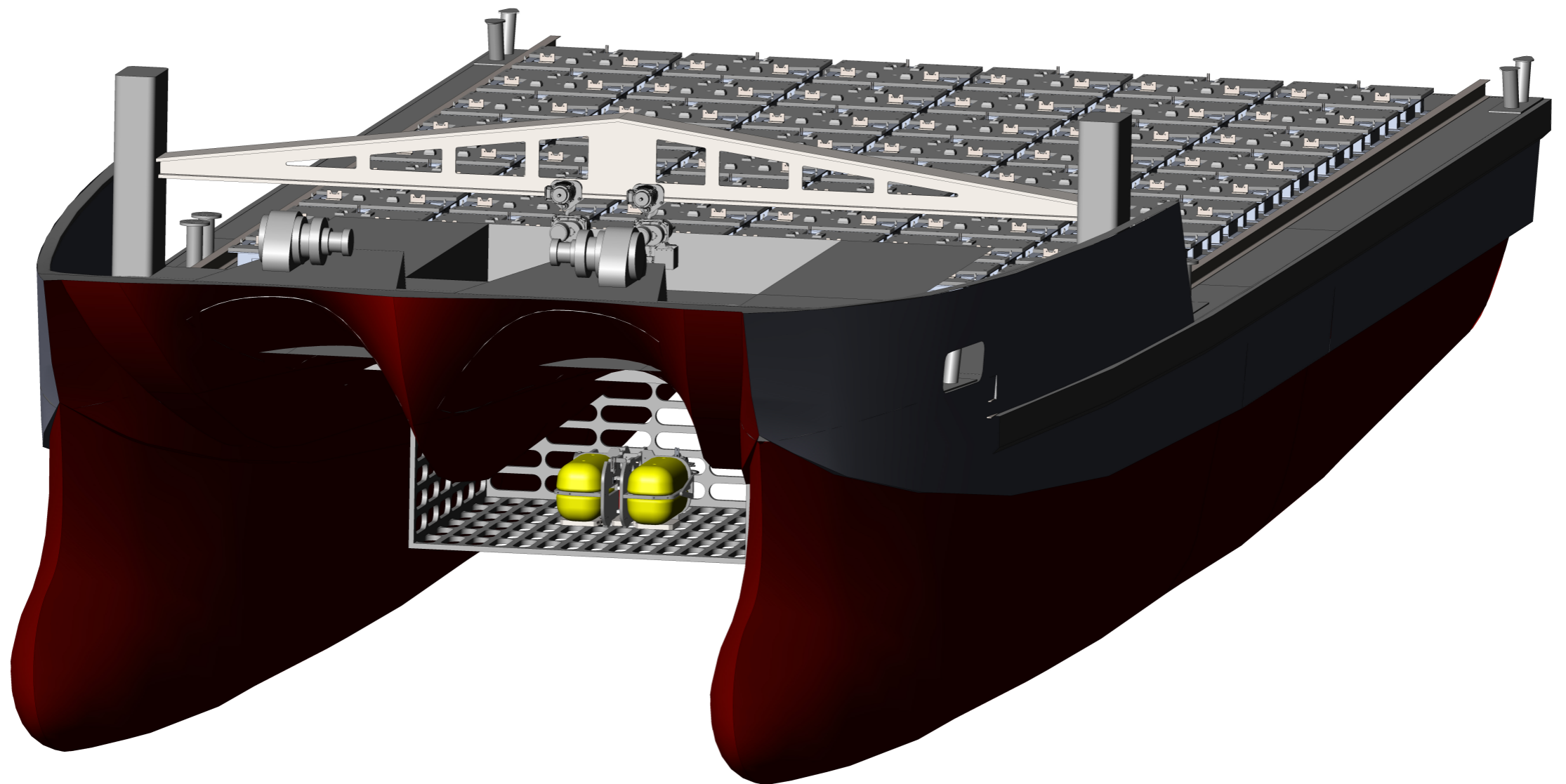
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AUTONOMOUS DEPLOYMENT



AUTONOMOUS RECOVERY

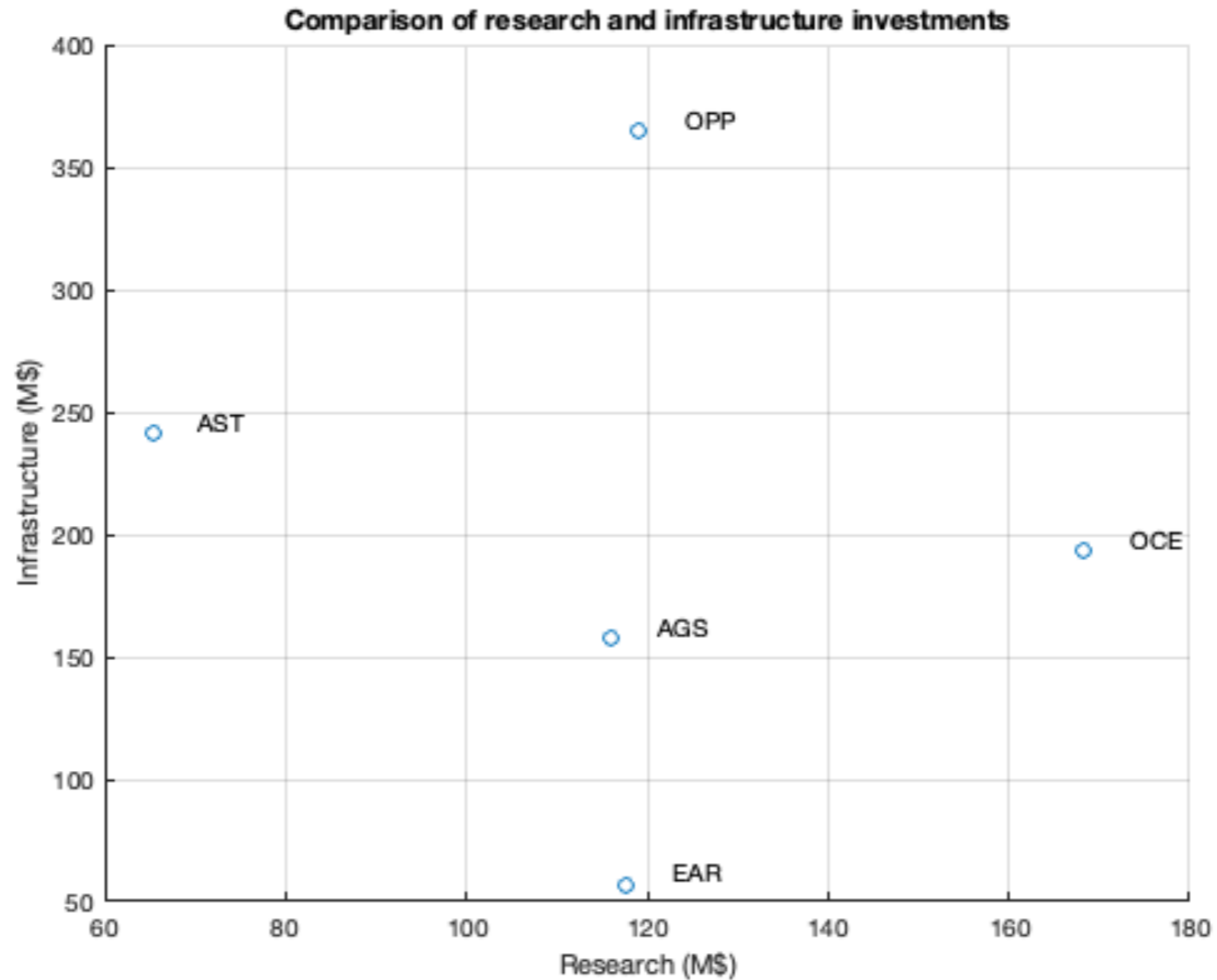




PIÑÓN FLAT OBSERVATORY

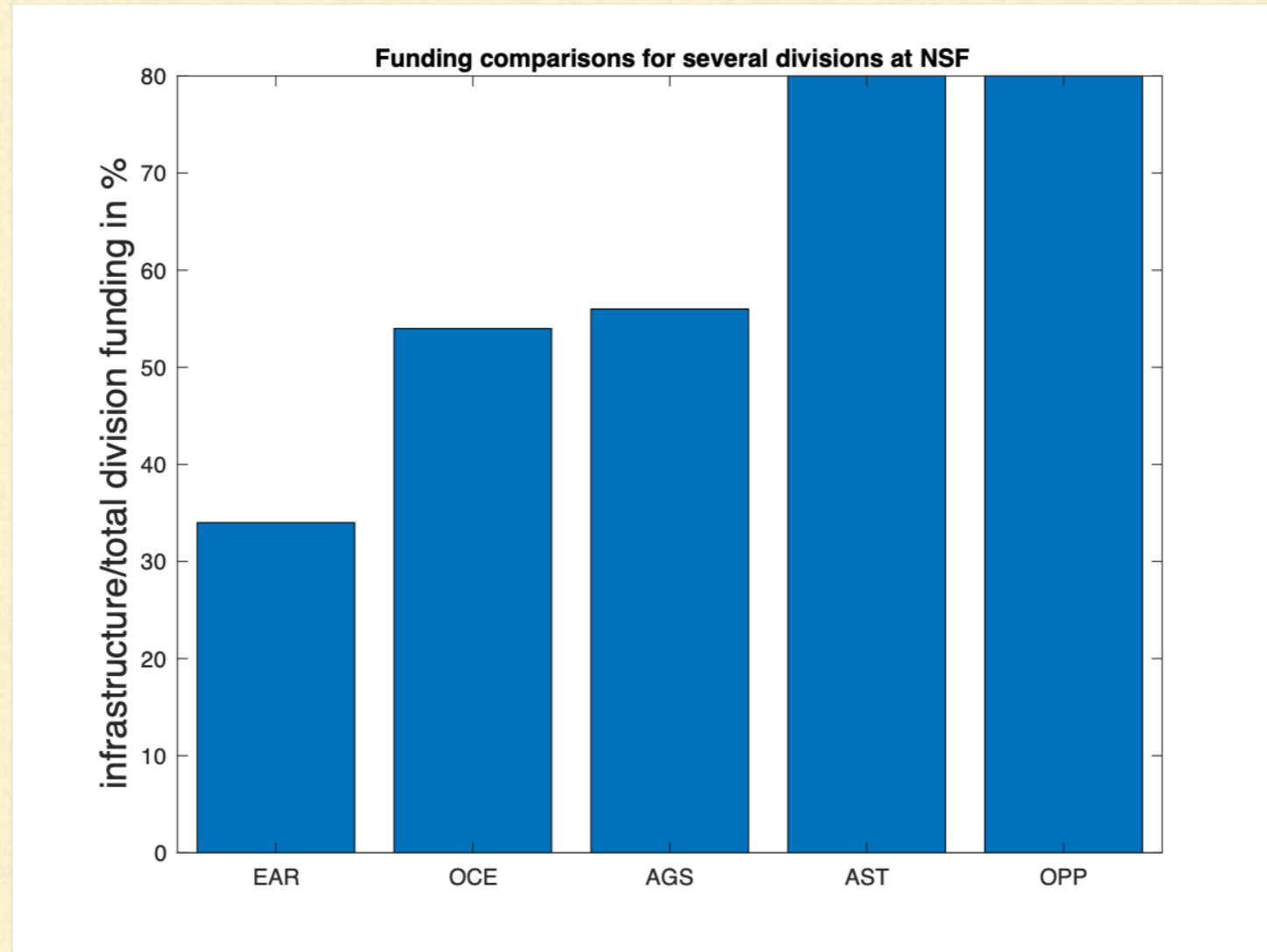
Laser strain meter looking north showing the EW strain meter (2 others not shown). Prof Rod Driver visited Piñon in the early 80's as LIGO was being planned. Frank Wyatt and Jon Berger were there installing optical anchors. Like the later LIGO this uses a laser in an evacuated tube & an interferometer. Had Rod lived a bit longer, he would have won a Nobel Prize with his colleagues.

The rig in the photo is drilling, lining and grouting four new boreholes to install new seismometers including an optical seismometer to reduce the noise levels for the associated global network.



INFRASTRUCTURE VS. RESEARCH-2018

AST: Astronomy, OPP: Office of Polar Programs; AGS: Atmospheric and Geospace Sciences



INFRASTRUCTURE/TOTAL IN %

NSF OCE Budget - 2019