

Planning for a new California Coastal Research Vessel

Presentation to UNOLS
Fleet Improvement Committee
29 November 2016

Bruce Appelgate (SIO)
Mike Prince (MLML)



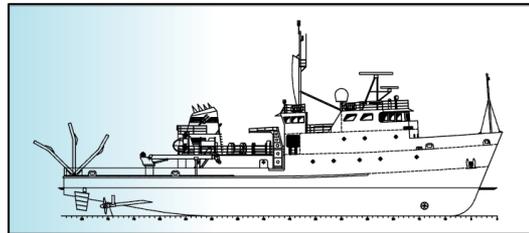
California needs a dedicated research vessel

- California society and economy depend on the ocean for resources, commerce, defense, infrastructure, and quality of life.
- Growing need for undergraduate and graduate education involving instruction, research and practical training at sea.
- California economy, 6th largest in world, is strongly tied to the ocean and drives a growing demand for maritime research & development.
 - *Roger Revelle* and *Sally Ride* have worldwide research portfolios, and will not predictably be available in California waters
 - Universities throughout California require an accessible, affordable, capable research vessel for classes and student research projects, operating on time frames tailored to academic calendars.
 - California needs the ability to mount rapid response missions to ephemeral events, with quick access to a capable, well-outfitted, professionally-staffed vessel



California-based Intermediate Class & smaller ships

Research vessels able to carry out California's local research and education needs have decreased from 3 to 1, with the last remaining ship approaching the end of its service life. **A new vessel is needed.**

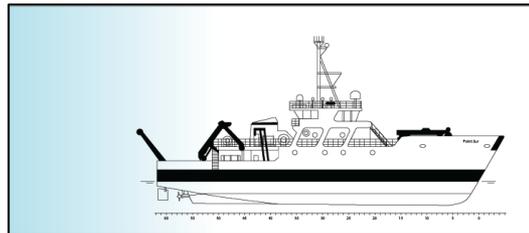


INTERMEDIATE

R/V *New Horizon*

170 feet / 40-day endurance

12 crew / 19 scientists

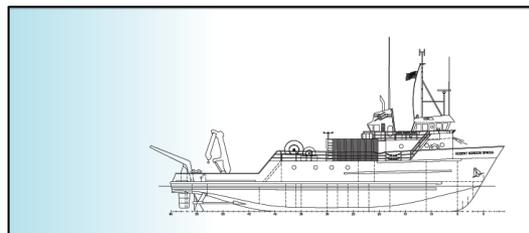


REGIONAL

R/V *Pt Sur*

135 feet / 21-day endurance

8 crew / 12 scientists

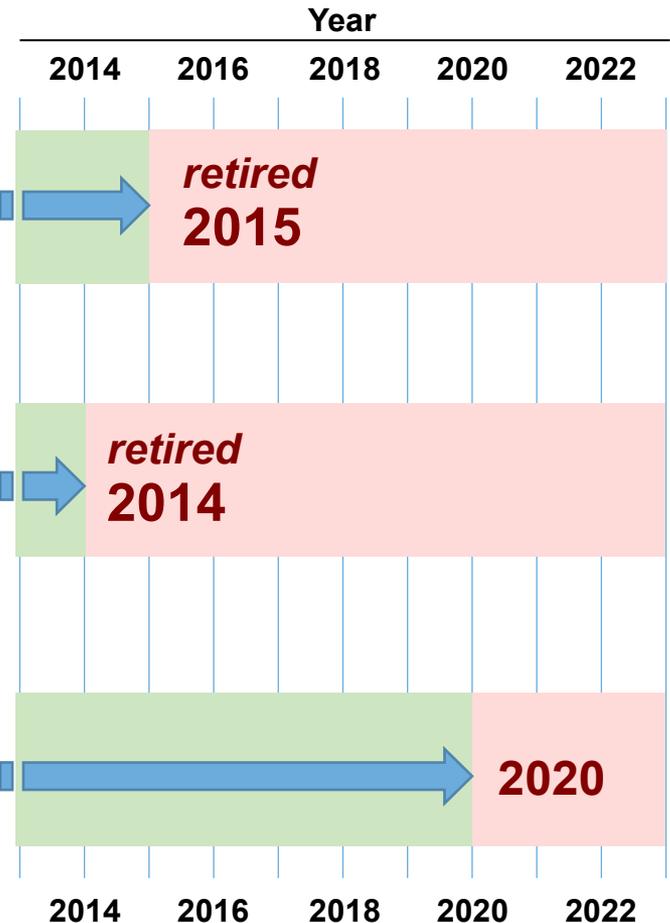


LOCAL / COASTAL

R/V *Robert Gordon Sproul*

125 feet / 14-day endurance

5 crew / 12 scientists



Needed
2020 onward

Collaborating on a shared research vessel



Vision: establish a new kind of partnership within California, involving public and private universities, research institutions, state agencies and non-governmental organizations to support a new **California Coastal Research Vessel (CCRV)** for seagoing education and research.

Efforts to date:

- **Moss Landing Marine Laboratories** (California State University) and the **Scripps Institution of Oceanography** (University of California) have agreed to collaborate jointly on this effort.
- Committed significant seed funding from each institution
- Assembled Scripps *Small Ship Task Force* to define institutional needs
- Sent *Dear Colleague* letter to 100+ ship users statewide to solicit input
- Scripps began a DOT-sponsored feasibility study (with Sandia National Labs) of a zero-emission research vessel (ZERo/V), including conceptual design

CCRV: Goals for 2017

Science mission requirements: Consult with likely ship users and sponsors to develop SMRs, building on existing UNOLS products

Develop management plan: How will a single vessel be managed and operated such that it is able to support multiple institutions? This should be resolved in 2017.

State and local government: Engage, educate, and build support.

Conceptual vessel design: Based on the foregoing, develop CCRV concept.

Correspondence to:

Bruce Appelgate <tba@ucsd.edu>

Mike Prince <prince@mml.calstate.edu>

