R/V Marcus G. Langseth
Replacement Planning
LDEO Future Ship Planning

**Langseth Replacement**

1) In 2020, the Columbia University Purchase of the Langseth, LDEO proposed that ship to be retired in Fall 2024.

2) Rationale behind retirement date was driven by potential additional ship investment being prohibitive for a full mid-life and end-of-life issues on critical systems.

3) CU-LDEO goal is still targeting ~2025 for a replacement global class vessel that maintains a significant seismic capability but is more general purpose oriented to support a broader array of oceanographic projects more easily.
PROJECT STATUS

1) Working with LDEO Directorate, Climate School and University on funding for various ship planning phases.
2) Starting work with Glosten on developing concept model now
3) Talking with ship brokers worldwide on possible vessels of interest
4) Talking with potential shipyards

**General Vessel Characteristics:**
- 80-90m in length
- ~60+ berths
- < ~10 years in age
- Either conversion of an existing seismic vessel (ala Langseth) or Conversion of SOV, PSV, OSV workboat to support seismic and other General Purpose work.
OSV/PSV Conversion of Existing Vessel

Why an OSV or PSV for Conversion?

Current Ship Market has effectively no seismic vessels available. During period of 2013 to now, ~100 vessels left that market with downturn of O&G. Only recent rebound of prices has more ships active but only 15-25 are working.

Overall workboat market is tight as well due to windfarm construction all over the world being a big driver. Big change in this part of market over the last 2-3 years but OSV/PSV the most likely, if not only option, for existing vessels.
Seismic Conversion of Existing PSV

Can it be done?

- PSV –REM Andes converted to seismic vessel by BGP in ~6 months
- Capabilities are fairly comparable to *Langseth*.

~88m vessel, 65 berths, 2010 build -
Another Example: R/V Karmei-JAMSTEC

JAMSTEC’s R/V Karmei – 100m vessel with 2D/3D seismic capabilities, coring, ROV support, 65 berths, 2016 build.
New Vessel Planning

**Concept Model Purpose:**
Merging seismic and general purpose capabilities for global class research vessel.