



ANTARCTIC RESEARCH VESSEL

<https://future.usap.gov/arv/>



Calendar

Conceptual Design Review (CDR)

September 2021

Design Review 1

April 2022

Design Review 2

August 2022

Design Review 3

October 2022

Design Review 4

December 2022

Preliminary Design Review (PDR)

February 2023

Final Design Review (FDR)

March 2025

Construction starts

January 2027

Vessel Delivered to NSF

June 2030

Points of Contact / References

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Preliminary Design

Classification

ABS ✕ A1

Oceanographic

AMS

ILM

ACCU

BWT+

Unrestricted service

CCO-Polar

HAB++(WB)

ENVIRO

ESS-LIBATTERY

HYBRID IEPS

ILM

UWILD

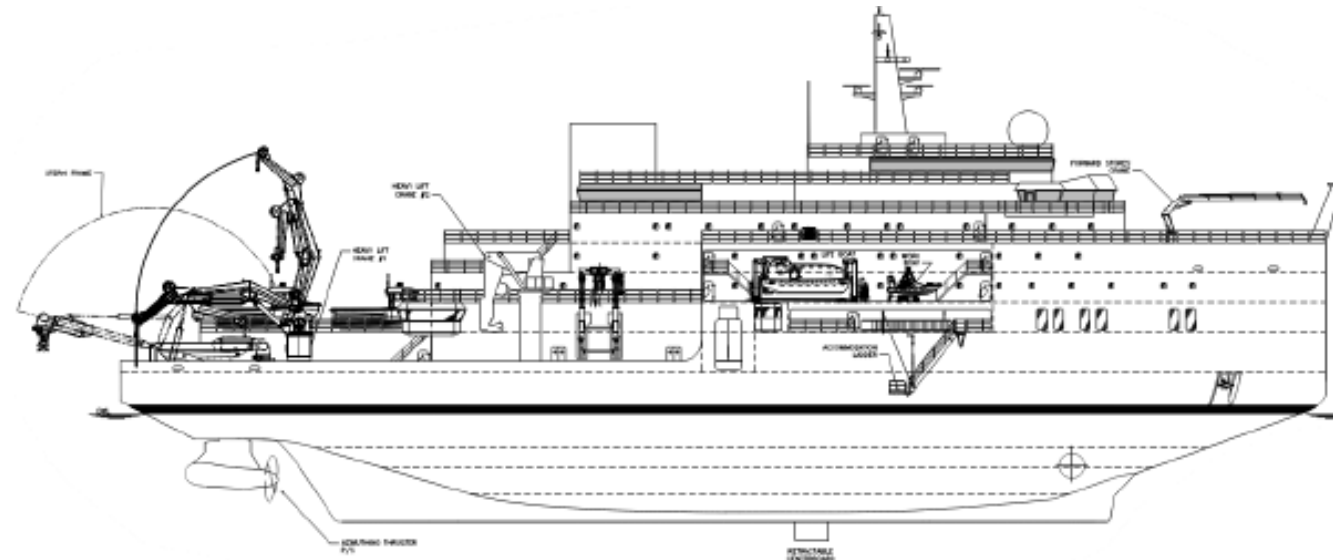
Ice Class

PC3

NIBS

DPS 1

CS 2



Dimensions

Length, Overall

365.0 ft

Beam, Overall

80.0 ft

Accommodations

Ship's Crew

Crew: 29

Science Party

Scientists: 55 with ADA accommodations

Performance

Open Water

Cruise 11kt T / 12kt O

Range

17,000 nm

ARV Key Performance Parameters (KPPs)

- Polar Class 3, 4.5 ft ice @ 3 kts
- 90 Day Endurance
- 55 Science/Technical Personnel

Capability

- 40m – 50m Piston Coring System
- Coring and Oceanographic Traction Winches
- Primary and Secondary Hydrographic Winches
- CTD Launch and Recovery System (LARS)
- 20 ton Stern and Starboard A-Frames
- 7,000+ sq ft Aft Working Deck
- 170 ft open Starboard Deck
- 8,000+ sq ft Main Deck Lab space

Characteristics

- Large Configurable Labs
- Science Sea Water System
- Baltic Room – CTD Operations
- Science Staging Bay – Back Deck Operations
- UAV/Aviation Deck and forward Hanger
- Marine Mammal and Sea Bird Observation Area (enclosed)
- Science Container Hold (8ea 20' ISO containers)
- Box Keel sonars w/ Ice Windows
- Retractable Center Board (Drop Keel) sonars w/o Ice Windows
- Science Support Small Boats (4)

Rendering



Vessel Size Comparison

