Antarctic Research Vessel

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

Anticipated Future Milestones

Final Design Review (FDR) March 2025
Construction starts January 2027
Vessel Delivered to NSF June 2030

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 - 12kt
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)

ARV Website
https://future.usap.gov/arv/