Advancing the state-of-the-art for scientific discovery at sea

Owned by the United States Office of Naval Research and operated by Scripps Institution of Oceanography, R/V Sally Ride is an Ocean Class Auxiliary General Oceanographic Research (AGOR) vessel designed to perform multidisciplinary oceanographic research worldwide, from littoral environments to the deepest ocean, from the tropics into first-year sea ice. Aboard R/V Sally Ride, new systems will permit improved over-the-side operations, station keeping, trackline maneuvering, and acoustic system performance to support demanding scientific tasks. Designed to be reliable, cost effective and flexible, the Ocean Class AGOR will capably support the evolving needs of U.S. scientists for decades to come.

http://scripps.ucsd.edu/ships

R/V Sally Ride Specifications
Length: 238 feet    Beam: 50 feet    Draft: 15 feet
Gross tonnage: 3,043 long tons
Transit speed (for planning): 10.5 kts    Maximum speed: 12.8 kts
Dynamic positioning & trackline following: ± 5m in SS5
Endurance: 42 days at 10.5 knots (fuel)    Range: 10,545 nm
Ice strengthening: independent ops in first-year ice (ABS Ice Class D0)
Superior maneuverability and reliability from variable-speed controllable pitch propellers and bow and stern thrusters

Room on Board
Accommodation: 20 crew, 25 scientists
Laboratory space: 2,035 ft²    Main deck working area: 3,036 ft²
Science storage volume: 5,017 ft³    Science payload: 250 long tons
Portable vans: 3 20-foot containers aft, 1 container forward

Scientific Equipment
Deep Water Multibeam Survey System: Kongsberg EM122
Shallow Water Multibeam Survey System: Kongsberg EM712
Acoustic Doppler Current Profilers:
Teledyne RDI Ocean Surveyor 38 kHz and 150 kHz
Teledyne RDI Mariner Workhorse 300 kHz
Sub-Bottom Profiler: Knudsen 3260, 16-element Massa 3.5 kHz Array
Echosounder: Knudsen 3260 with 12 kHz single-beam transducer
Fisheries research sonar: Kongsberg EK80 with five frequencies (split beam transducers at 18, 38, 70, 120 and 200 kHz)
Acoustic synchronization unit: Kongsberg K-Sync, 8 channels
Motion sensors: Kongsberg Seapath 330+, IXSEA PHINS
Underway salinity & temperature: Seabird thermostaligraph
Underway temperature profiling: Turo expendable bathythermograph
Seawater sound speed: Calculated from thermostaligraph (surface) and Turo XBT system (vertical profiles)
Underwater navigation system: Kongsberg HiPAP 501 (30 kHz, range to 4,000 m) and HiPAP 101 (12 kHz, range to 10,000 m)
Long baseline transponder navigation: Kongsberg HiPAP
Supply of submersible transponders: Kongsberg cNODE (12 & 30 kHz)
Scientific wave radar: Rutter WAMOS II-300 Wave Monitoring System measures and displays ocean wave spectra in real time
Flow-through uncontaminated seawater system, instrumented for meteorological and sea surface measurements
Shipboard data system: Wired and wireless shipboard network
Satellite broadband: Redundant satellite internet connectivity

Support Equipment
Main crane: Allied TK70-70 telescoping knuckleboom, 10,000 lbs at 70 feet extension (sea state 4), 22,000 lbs at 70 feet (sheltered ops)
CTD handling system: Allied CTD-LARS
Starboard overboard handling system: Allied Handling systems reach to waterline for improved safety and load control
Portable crane: Allied TK10-40 telescoping knuckleboom, 2,000 lbs at 30 feet extension
A-Frame: Allied, 30,000 lbs dynamic working load
A-Frame lowers forward to deck for access to sheaves at sea
CTD/hydro winches: Dual Markey CAST6 with motion compensation and rend & recover modes, each with rated full drum capacity of 14,000 m 0.322" electro-mechanical (EM) cable, 12,000 m 0.375" 3x19 torque-balanced wire rope, or 10,000 m 0.393" EOM (electro-optical-mechanical) cable
Main winch: Markey traction winch with rated line pull 25,000 lbs at 45 m/min and dual storage drums, each with rated full capacity of 12,000 m 9/16" 3x19 torque-balanced wire rope, 10,000 m 0.680" EM cable, or 10,000 m 0.681" EOM cable.