MESSAGE FROM THE DIRECTOR

I AM PLEASED TO REPORT THAT SCRIPPS SCIENCE IS THRIVING. Our scientists remain leaders in their fields and continue to garner impressive levels of federal funding. This fiscal year, Scripps saw a healthy increase in federal awards over last year.

Because state funding from the University of California system has not kept pace with the need, Scripps has examined its expenditures and begun to restructure its financial model. Federal, state, and private funds will all play a role. Grant and contract awards increased by approximately $12 million in 2006-2007 to $118,391,000; however, even an 11 percent increase last fiscal year in the sum of these categories of income has not covered increasing costs. Despite this challenge, our commitment to fulfill the Scripps mission remains as strong as ever.

Scripps has made significant strides in securing private gifts this year. We have reached enough of our fundraising goal to complete construction of the Robert Paine Scripps Forum for Science, Society, and the Environment, and we are in the “home stretch” to complete its state-of-the-art conference capabilities, with audio-visual and catering facilities to match its stunning exterior. We also received two generous endowments enabling Scripps to establish the Roger Revelle Chair in Environmental Science and the Benedek Chair in Ocean Sensor Science—gifts that will bring additional world-class faculty to our campus and enhance our ability to seek answers to today’s scientific questions.

Scripps also has reached milestones in teaching this year. Our faculty members have taught a variety of UCSD undergraduate courses for years, but for the first time, Scripps is assuming full responsibility of UCSD’s earth sciences program. The launch of a popular new marine science minor also marks an important success for Scripps. Incorporation of these programs emphasizes Scripps’s commitment to undergraduate education and affords even more opportunities to involve undergraduate students in research.

As the institution changes, so do the methods we use to communicate our scientific findings for the benefit of society. This year we launched the very successful explorations electronic-magazine, which has more than 14,000 subscribers and is enjoyed by readers in 144 countries. It has recently won a gold award from the Council for the Advancement and Support of Education (CASE). We also celebrated the opening of Birch Aquarium at Scripps’s newest exhibit, Feeling the Heat: The Climate Challenge, which translates the complex science of global warming to the public. The exhibit won a design award from Event Design Magazine this summer.

Seek, teach, communicate—all to benefit our community. Our science has always been valuable, but world events over the last year have emphasized the value of what we do for our community. Scripps continues to evolve and grow, but our course stays true. Thank you for your interest in Scripps, and for your support.

Tony Haymet
Director
Scripps Institution of Oceanography
University of California, San Diego

THE SCRIPPS MISSION:
To seek, teach, and communicate scientific understanding of the oceans, atmosphere, Earth, and other planets for the benefit of society and the environment.
Scripps Research

RESEARCH ACTIVITIES

Air-sea interactions
High-altitude aircraft, research ships, and computer models are used to measure the exchange of energy and matter among the atmosphere, clouds, and oceans.

Climate change
Historical climate records and evidence found in samples from such diverse areas as glacial ice packs and tropical coral reefs are critical to interpreting long-range global climate changes, improving seasonal forecasting, and predicting El Niño events.

Coastal processes
Conducting coastal surveys, deploying instrument networks, and designing new technologies are among the approaches used to conserve seashore habitats, manage beach erosion, and forecast coastal conditions.

Earthquakes
The strength, causes, and locations of earthquakes are investigated by exploring the mechanics of the earth and monitoring seismic activity with local, regional, and global instrument networks.

Geology
Observational, experimental, and theoretical methods of the basic sciences are used to understand the processes that alter Earth’s crust and to determine the long-term history of the lithosphere, hydrosphere, atmosphere, and biosphere.

Geophysics
New techniques of seafloor mapping, geological sampling, and remote sensing are yielding a better understanding of the processes involved in seafloor spreading, volcanism, and the formation of minerals.

Marine biodiversity and conservation
The diversity, distribution, and protection of marine life in the world’s oceans are studied through field and lab research and the use of historical data and museum specimens.

Marine biology
The molecular, biochemical, and ecological characteristics of marine bacteria, plants, and animals are examined from the shore to the deep sea.

Marine chemistry
Investigations range from analyzing human impacts on the oceans to finding natural marine chemicals that fight disease.

Marine food web
The cycling of nutrients in the oceans from plankton to large fish is examined to understand how species interrelate and to assess what causes populations to vary over years and decades.

Marine genomics
Genetic analysis of marine life is increasing our understanding of how organisms have evolved and the roles they play in ecosystems, helping scientists analyze the health of the oceans and discover potential pharmaceuticals from the sea.

Ocean engineering
The development of new technologies and instrumentation for underwater research, including laser-based and sound-imaging devices, is greatly extending capabilities to work and gather data in the oceans and on the seafloor.

Physical oceanography
Measurements of currents and ocean mixing from the sea surface to great depths are giving a clearer account of the cycling of nutrients, chemicals, and heat in the oceans, factors that affect many global environmental systems.
FUNDING PRIORITIES: SHAPING THE FUTURE OF SCRIPPS

PRIVATE SUPPORT IS ESSENTIAL in helping Scripps address these challenges. Emerging from its most successful year in gifts and grants, Scripps is laying the foundation for maintaining leadership as a world authority on ocean, earth, and climate science. Private support will be directed toward three critical areas as we embark on Scripps’s second century:

• Attracting the best and brightest minds to lead the world in ocean, climate, and earth sciences;
• Pursuing the scientific knowledge and discoveries needed to address the most significant environmental challenges;
• Going beyond the science to educate policymakers, business leaders, and ordinary citizens about the discoveries made at Scripps, so informed decisions can be made in shaping the planet’s environmental destiny.

We can achieve these institutional goals with endowed chairs, graduate and post-doctoral fellowships, seed funding for research, an endowment for the Scripps Collections, and funds to expand Birch Aquarium at Scripps. These all require private support. Friends such as you can make a difference by helping Scripps address the growing environmental challenges facing society. Please join us.

WEB: supportscripps.ucsd.edu
**SUSTAINING A CLIMATE SCIENCE LEGACY**

The family of famed former Scripps Institution of Oceanography Director Roger Revelle made a $2.5 million gift this year to establish the Roger Revelle Chair in Environmental Science at Scripps. The endowed chair honors Revelle, one of the world’s most highly regarded oceanographers, and the founder of UC San Diego.

The generous gift from Revelle’s wife, Ellen, and her family represents the largest single donation ever made for an endowed chair in the 104-year history of Scripps. “Roger loved being at Scripps. It was always near and dear to his heart,” said Ellen Revelle. “Endowing a chair here in his honor seemed like a very appropriate thing to do.”

Funds for the endowed chair will initially be used to recruit outstanding climate scientists to Scripps, one of the world’s foremost climate change research institutions.

---

**Private Support in Fiscal Year 2006-2007**

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endowed Chairs</td>
<td>$3,500,100</td>
</tr>
<tr>
<td>Scripps Forum</td>
<td>$2,331,430</td>
</tr>
<tr>
<td>Fellowships/Student Support</td>
<td>$1,335,072</td>
</tr>
<tr>
<td>Research</td>
<td>$4,016,709</td>
</tr>
<tr>
<td>Birch Aquarium at Scripps</td>
<td>$1,673,330</td>
</tr>
<tr>
<td>Other</td>
<td>$2,102,393</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$14,963,034</strong></td>
</tr>
</tbody>
</table>

Above amounts reflect booked gifts, grants, and pledges.

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**Scripps Oceanography Endowment**

* (market value as of June 30, 2007)

<table>
<thead>
<tr>
<th>Endowment Type</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>UC San Diego Foundation Endowments</td>
<td>$13,943,371</td>
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<tr>
<td>UC Regents Endowments</td>
<td>$50,091,729</td>
</tr>
<tr>
<td><strong>TOTAL Endowments</strong></td>
<td><strong>$64,035,100</strong></td>
</tr>
</tbody>
</table>

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**50 YEARS OF CLIMATE CHANGE SCIENCE**

“Global warming” has become a household phrase only in recent years, but Scripps Oceanography has been a pioneer in the science of climate change for half a century. In 1956, Scripps Director Roger Revelle hired Charles David Keeling to establish the first atmospheric carbon dioxide monitoring program, an initiative that has produced the iconic graphic known today as the “Keeling Curve.” In March 2008, Scripps will celebrate the 50th anniversary of this ongoing dataset, marking its importance to our understanding of climate change and for our future discoveries.

In October 2007, it was announced that former Vice President Al Gore and the United Nations’ Intergovernmental Panel on Climate Change (IPCC), whose roster of researchers and experts includes scientists from Scripps, received the Nobel Peace Prize. Five researchers at Scripps have played lead roles in the panel’s reports, and more than a dozen other Scripps scientists have been involved in the IPCC process since its inception in 1988.
Financial Support

FEDERAL, STATE, AND CITY/COUNTY AGENCIES

FEDERAL

Commerce, Department of
National Oceanic and Atmospheric Administration

Defense, Department of
Air Force Office of Scientific Research
Army Space and Missile Defense Command
Miscellaneous Air Force Bases and Agencies

Energy, Department of
Department of Energy, Washington, D.C.

Health and Human Services, Department of
National Cancer Institute
National Institute of Allergy and Infectious Diseases
National Institute of General Medical Sciences
National Institute of Neurological Disorders and Stroke

Navy, Department of
Office of Naval Research
Space and Naval Warfare Systems Command
Miscellaneous Bases and Agencies

National Aeronautics and Space Administration
Goddard Space Flight Center
Shared Services Center

National Science Foundation

Other Federal
USDI Geological Survey

CALIFORNIA, STATE OF
Boating and Waterways, Department of
Coastal Commission
Coastal Conservancy
Environmental Protection Agency Air Resources Board
Miscellaneous Agencies

CITIES AND COUNTIES
City of San Diego
County of San Diego

PRIVATE SUPPORT

$1,000,000+
Andrew Benedek +
Revelle Family + #
The SFS Foundation

$500,000-$999,999
Stephen & Mary Birch Foundation, Inc.
Devendra Lal +
Alfred P. Sloan Foundation +
The G. Unger Vetlesen Foundation +

$250,000 - $499,999
Carol and Russell Penniman +
Christy and Ed Scripps +

$100,000-$294,999
Anonymous (2)
American Chemical Society
The BAWD Foundation +
The Legler Benbough Foundation +
Tascha Chow Trust +
The Gerber Science and Education Foundation +
The Henry L. & Grace Doherty Charitable Foundation Inc. +
Susan and Sheldon Engelhorn +
Audrey Giesev
c
The San Diego Foundation - Dr. Seuss Fund
The Cecil H. and Ida M. Green Foundation for Earth Sciences +
Elaine and Bob Hallday +
Hours Trust - Ted J. Niccolades, Successor Trustee

Imperial Capital Bank +
Life Sciences Research Foundation
Miranmars, Inc.
Moore Family Foundation +
Gordan and Betty Moore +
Caroline and Nicholas C. Nierenberg +
The Nierenberg Foundation
Mrs. Edward W. Scripps II +
Kathryn and William H. Scripps +
Ellis Wyer +

$50,000 - $99,999
Anonymous
The Agouran Institute+
The ARCS Foundation Inc. - Los Angeles Chapter +
Canvaste, SCPS, SA / Luis da Silva +
Conservation International Foundation
Joan Eichen +
Elan Pharmaceuticals, Inc.
Craig and Cindy Emmerson +
Extrameasures, LLC
The Groover Foundation +
Cinda and Thomas O. Hicks +
Elizabeth Knode
The March of Dimes Birth Defects Foundation
Elizabeth Hamman Oliver and Morgan Dene Oliver +

The David and Lucile Packard Foundation +
Jane and Arthur Riggs
Suzanne and Robert Robotti
Cindy Scripps +
Joseph S. and Diane H. Steinberg Charitable Trust
Patricia and Bill Todd +

$10,000 - $49,999
Anonymous (7)
AGO/Schlumberger Corporation
Arthur L. and Joan A. Funk Foundation

$5,000 - $9,999
Anonymous
The ArCS Foundation Inc. - Los Angeles
Extrameasures, LLC
Craig and Cindy Emmerson *

Joan Eichen +
Conservation International Foundation
Joan Eichen +

$2,500 - $4,999
Anonymous

Arthur L. and Joan A. Funk Foundation

From July 1, 2006
to June 30, 2007
<table>
<thead>
<tr>
<th>Revenue</th>
<th>UNRESTRICTED</th>
<th>FY 05-06</th>
<th>FY 06-07</th>
<th>RESTRICTED</th>
<th>DESIGNATED</th>
<th>UNDESIGNATED</th>
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<tbody>
<tr>
<td>Sponsored Research (expensed in this period, not awarded)</td>
<td>$100,857,000</td>
<td>$107,082,428</td>
<td>$107,082,428</td>
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<tr>
<td><strong>Government - Federal</strong></td>
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<tr>
<td>National Science Foundation</td>
<td>93,746,652</td>
<td>36,079,397</td>
<td>36,079,397</td>
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<tr>
<td>Department of the Navy</td>
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<td>19,030,098</td>
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<tr>
<td>National Aeronautics and Space Administration</td>
<td>16,378,749</td>
<td>16,378,749</td>
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<tr>
<td>Department of Energy</td>
<td>1,249,590</td>
<td>1,249,590</td>
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<tr>
<td>Other Departments of Defense</td>
<td>1,171,542</td>
<td>1,171,542</td>
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<tr>
<td>Other Federal Departments</td>
<td>2,944,395</td>
<td>2,944,395</td>
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<tr>
<td>Federal “flow thru” subcontracted research with non-state institutions</td>
<td>12,785,797</td>
<td>12,785,797</td>
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<tr>
<td><strong>Government - State</strong></td>
<td>7,909,146</td>
<td>7,909,146</td>
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<tr>
<td>Intercampus Sponsored Research</td>
<td>360,326</td>
<td>360,326</td>
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<tr>
<td><strong>Government - Local</strong></td>
<td>286,639</td>
<td>286,639</td>
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<tr>
<td>Private Contracts</td>
<td>4,779,666</td>
<td>4,779,666</td>
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<tr>
<td>University of California Support</td>
<td>8,162,667</td>
<td>28,793,392</td>
<td>230,978</td>
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<tr>
<td>General Funds from the State that flow through UCSD</td>
<td>17,264,892</td>
<td>1,244,553</td>
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<tr>
<td>Student Fees</td>
<td>48,564</td>
<td>48,564</td>
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</tr>
<tr>
<td>Allocation of Benefits for UCSD FTE’s</td>
<td>3,077,028</td>
<td>9,265</td>
<td></td>
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<tr>
<td><strong>ICR Allocation from Prior Yr F&amp;A fees from UCSD</strong></td>
<td>6,018,114</td>
<td>6,018,114</td>
<td></td>
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<tr>
<td>Earned Revenue</td>
<td>167,775</td>
<td>1,757,308</td>
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<td></td>
</tr>
<tr>
<td>Birch Aquarium at Scripps (BAS) excluding recharge revenue</td>
<td>3,469,948</td>
<td>3,469,948</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recharge Unit Revenues</td>
<td>5,655,264</td>
<td>5,655,264</td>
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<td></td>
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<tr>
<td>Intellectual Property &amp; Royalty Income</td>
<td>49,064</td>
<td>110</td>
<td></td>
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</tr>
<tr>
<td>Other Revenue</td>
<td>27,613</td>
<td>27,613</td>
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<td></td>
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</tr>
<tr>
<td>Private Gifts and Grants</td>
<td>4,740,750</td>
<td>1,757,308</td>
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<tr>
<td>Private Gifts</td>
<td>1,366,001</td>
<td>1,366,001</td>
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<tr>
<td>Private Grants</td>
<td>1,366,001</td>
<td>1,366,001</td>
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<tr>
<td><strong>Interest Income</strong></td>
<td>1,238,616</td>
<td>979,588</td>
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<tr>
<td><strong>Total Revenue</strong></td>
<td>11,326,366</td>
<td>11,326,366</td>
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</tr>
<tr>
<td><strong>Expenses</strong></td>
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<tr>
<td>6.7 Research Programs - SEEK</td>
<td>130,343,365</td>
<td>130,343,365</td>
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<tr>
<td>8 Instruction Programs - TEACH</td>
<td>6,275,237</td>
<td>6,275,237</td>
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<td></td>
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<tr>
<td>Outreach - COMMUNICATE</td>
<td>5,291,221</td>
<td>5,291,221</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Birch Aquarium at Scripps (BAS)</td>
<td>5,493,114</td>
<td>5,493,114</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scripps Oceanography Society (SOS)</td>
<td>7,222</td>
<td>7,222</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Communications &amp; Publications</td>
<td>799,295</td>
<td>799,295</td>
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<tr>
<td><strong>Institutional Support</strong></td>
<td>979,588</td>
<td>979,588</td>
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<tr>
<td>9 Director’s Office</td>
<td>1,835,086</td>
<td>1,835,086</td>
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<tr>
<td>10 Development - Direct Costs</td>
<td>612,372</td>
<td>612,372</td>
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<tr>
<td>11 Director’s Business Office</td>
<td>890,530</td>
<td>890,530</td>
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<tr>
<td>12 Academic and Research Investments</td>
<td>910,386</td>
<td>910,386</td>
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<tr>
<td>13 Facility Expenses</td>
<td>801,745</td>
<td>801,745</td>
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<tr>
<td>14 Support Services</td>
<td>683,184</td>
<td>683,184</td>
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<td></td>
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</tr>
<tr>
<td><strong>6 Total Expenses</strong></td>
<td>148,871,722</td>
<td>148,871,722</td>
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<td></td>
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</tr>
<tr>
<td>15 Net carry forward/(Deficit) from Current Activities</td>
<td>4,781,262</td>
<td>4,781,262</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Revenue & Expenditures**

**Sources of Revenue**  
**FY 06/07**  
$153,652,984

- **Earned Revenue** $9,348,826  
- **Private Gifts & Grants** $6,498,058  
- **Interest Income** $1,930,278  
- **Indirect Cost Recovery** $6,018,114  
- **Sponsored Research** $107,082,430  

---

**Expenditures by Function**  
**FY 06/07**  
$148,871,722

- **Salaries & Benefits** 42%  
- **Supplies & Expenses** 37%  
- **Equipment** 8%  
- **Travel** 3%  
- **Overhead** 10%  

---

**Argo has the Oceans Covered**

The Argo array of ocean-observing instruments, many built at Scripps Institution of Oceanography at UC San Diego, reached full observational capacity this year. The level of coverage translates to an average of one float per every three degrees latitude and longitude. Scientists behind Argo hope to see it provide a comprehensive view of the basic physical state of the oceans for decades to come.
Scripps is a world-class oceanographic institution because of its ability to attract and retain the best students, faculty, and staff.

**GRADUATE STUDENT STATISTICS**

**Fall 2006 enrollment**

Male: 120
Female: 122
Total: 242

**Field of Study / Number of Students**

Applied Ocean Sciences: 20
Biological Oceanography: 27
Climate Science: 26
Geophysics: 32
Geological Science: 26
Marine Biology: 51
Marine Chemistry/Geochemistry: 38
Physical Oceanography: 22
The Scripps Fleet

**R/V ROGER REVELLE**
- Built: 1996
- Length: 273 feet
- Gross Tonnage: 3,180 tons
- Crew: 22
- Scientific berthing: 37

**R/V MELVILLE**
- Built: 1969
- Mid-Life: 1992
- Length: 279 feet
- Gross Tonnage: 2,516 tons
- Crew: 23
- Scientific berthing: 38

**R/V NEW HORIZON**
- Built: 1978
- Mid-Life: 1996
- Length: 170 feet
- Gross Tonnage: 297 tons
- Crew: 12
- Scientific berthing: 19

**R/V ROBERT GORDON SPROUL**
- Built: 1981
- Length: 125 feet
- Gross Tonnage: 84 tons
- Crew: 5
- Scientific berthing: 12

**R/P FLIP**
- Built: 1962
- Length: 355 feet
- Gross Tonnage: 700 tons
- Crew: 4 in port, 5 underway
- Scientific berthing: 11