OCEAN INSTITUTE
EXPERIENCE IS THE TEACHER

ABOUT THE OCEAN INSTITUTE:

I. Ocean Institute Mission

To inspire all generations through education to become responsible stewards of our oceans.

II. Brief History of the Ocean Institute

The Ocean Institute, founded in 1977 as the Orange County Marine Institute, is a community-based 501 (c) (3) organization that educates 80,000 students, 8,000 teachers, and 50,000 public visitors annually through over 40 marine science and maritime history programs. Located on 2.4 acres in the Dana Point Harbor, at the edge of the Pacific Ocean and adjacent to a Marine Life Refuge, the site is ideal for hands–on learning about the sea.

The Institute grew steadily from inception to the point that the facilities were at 100% capacity. In 1999, the Board of Directors voted to expand, and initiated a capital fundraising campaign for the design and construction of new facilities. Construction of the six building, 33,800 sq. ft. campus began in early 2001. It took 18 months to build at a cost of $16.5 million, all generously donated by numerous friends from throughout the country. The capstone occasion came in October 2002 when the new Ocean Education Center opened for the people of Southern California and beyond.

III. Ocean Institute Today

Today, students, families and the general public become tallship sailors, research scientists, oceanographers, and explorers while immersed in Ocean Institute school-day and weekend programs.

EDUCATIONAL FACILITIES

Primary Teaching Facilities:

Ecology Learning Center and Children's Theater, primarily for students in grades K-3. Teaching stations include marine life tanks, wet-tables with video-microscopes, and a digital imaging lab. The facility also contains a children's theater that supports virtual or interactive presentations on the marine environment.

Folino Center for Technology and Communications, that uses the most modern technology including videoconferencing equipment for distance learning programs to enhance the education of students nationwide.

Lazy-W Ranch in the Cleveland National Forest, a residential camp where students spend their days and nights experiencing California history or investigating different ecosystems.

Marine Life Refuge, a natural intertidal ecosystem of eight acres adjacent to our site.

Maritime Center, a hands-on teaching facility built in 1997 for exploration of maritime history.

"Ocean in Motion" van, a mobile laboratory for outreach to special needs and underserved students.

Packard At-Sea Learning Center, a teaching laboratory with tanks of local marine life including a jellyfish grow-out station. This facility is used primarily for grades 4-6.

Pilgrim, a 130-ft. historic tallship made famous by Richard Henry Dana in his book *"Two Years Before The Mast."* Since 1981, students have been living as sailors in the 1830s during overnight and daytime dockside programs that bring history to life.

R/V Sea Explorer, a 70-ft. marine science research vessel with state-of-the-art oceanography equipment where students become oceanographers for a day.

Spirit of Dana Point, a 118-ft. topsail schooner used for living history and at-sea maritime adventures that joined our fleet in 2001.

Surfscience Learning Center and Sleeping Deck, capitalizing on California's rich surfing history to interest students in the sciences of the surf zone. Teaching exhibits include an Oceanography Test Tank, Wave Tank, Shark and Ray Pool, and Shipboard Research Station. The second story is a sleeping deck, with a National Weather Service Coastal Observation Station, and expansive views of the open ocean.

Additional Facilities:

Center for Cooperation in Research and Education, the Institute's outreach arm that works to integrate current ocean research into Ocean Institute programs and "translate" that research for students and the general public.

Chambers Gallery Book and Gift Store, carrying the latest educational materials and ocean-themed items with proceeds benefiting Ocean Institute programs.

Samueli Lecture Hall and Conference Center, a unique setting for events with state-of-the-art audio/visual equipment. The center is also used for a variety of educational programs.

Student and Teacher Services Building, the administrative center with an open, two-story lobby housing an interactive Sea Floor Science Exhibit funded in part by the National Science Foundation.

Current Facts: (Fiscal Year 05)

Annual Students Served:	80,000
Annual Public Served:	52,000
Festivals:	18,000
Total Guest Served:	**150,000**

Annual Budgeted Revenue:	$6.1 million
Staff:	110 (48 full-time, 62 part-time)
National Recognition:	2003 National Science Foundation Award (3 years) Inaugural *Walter Cronkite* Award, National Maritime Historical Society Program of the Year, American Sail Training Association
Support Groups:	Ocean Institute Volunteers, 410 Board of Directors, 32 Sand Dollar Guild, 50 Ocean Institute members, 2,400
Key Personnel:	Dan Stetson, President (13 years) Harry Helling, Executive Vice President, Research and Education (21 years) Bill Burger, Vice President Development

IV. Looking Toward the Future

Over the next few years, the Ocean Institute will strive to maximize the investment made in our new state-of-the-art facility to benefit the entire Southern California community. We will take full advantage of the additional available capacity by filling the programs with inquisitive students, expanding our outreach to underserved youth, and educating families and the general public on weekends.

www.ocean-institute.org

National Science Foundation and the Ocean Institute

The Ocean Institute was fortunate to receive funding from the National Science Foundation for ***Sea Floor Science*** to examine the process of science translation in a new way. The three-year project began in 2003 looking at exhibit convertibility and updatability. We wanted to know how an exhibit could be developed to meet both the relatively modest needs of the public and also the rather stringent needs of an 18-hour middle school overnight program. In addition, we were interested in how exhibits and programs might be designed to be more responsive to relevant scientific updates or developed quickly enough to represent current science.

Sea Floor Science creates 4-month intensive explorations of current ocean science topics. The project defines a new process for efficiently recruiting scientists, translating complex science and employing informal science center tools. To date, Sear Floor Science has presented ***Surfscience***,

Explorations! A Focus on Underwater Archaeology, ***Slopes, Slides and Tsunamis*** and ***Lights! Cameras! interActions!*** and is in development of ***Exploring Life in the Extreme***.

Sea Floor Science has helped to push the current definition of exhibit by creating new types of learning spaces that deliver a broader spectrum of visitor experiences and can be more readily updated to reflect changing science. In ***Slopes, Slides and Tsunamis***, science on the potential instability of continental shelves caused by methane hydrates conducted by Scripps Institution of Oceanography, Monterey Bay Aquarium Research Institution and United States Geological Survey was presented in an interesting combination of facilitated and non-facilitated exhibits, family kits, interactive scientist presentations, 60-minute activity tours, take-out science kits, self-guided science explorations and live videoconferences from a research vessel off the coast of Papua New Guinea. Formative evaluations showed that diverse audiences were able to understand key messages when all the informal science education tools worked in synchrony.

Sea Floor Science has developed a new and effective methodology for connecting scientists with informal science education centers. The project began with three partners, Jet Propulsion Lab, Scripps Institution of Oceanography and Texas A&M's Institute of Nautical Archaeology and quickly grew to include over a dozen major research institutions. Sea Floor Science has been successful at developing a sophisticated and efficient tool for busy scientists trying to meet broader impact initiatives. The model has been successfully applied to three recent NSF-funded ocean science projects. In addition, Sea Floor Science has informed NSF-funded Centers for Ocean Sciences Education Excellence and the RIDGE 2000 (group of 200 thermal vent scientists) by demonstrating a working model for building effective collaborations between the education and research communities.