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- ▶ Oceanic International
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- ▶ Memorial University's Marine Institute
- ▶ MIT Center for Ocean Engineering
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- ▶ Monterey Peninsula College
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- ▶ National Undersea Research Center for the North Atlantic & Great Lakes
- ▶ National Undersea Research Center at the University of North Carolina Wilmington
- ▶ Naval Undersea Museum
- ▶ NAVSEA
- ▶ NetBox
- ▶ Newfoundland and Labrador Department of Innovation, Trade and Rural Development
- ▶ Nuytco Research Ltd.
- ▶ Ocean Innovations
- ▶ *Ocean News & Technology*
- ▶ Ocean Way
- ▶ Oceanic Imaging Consultants, Inc.
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- ▶ University of Hawaii Seafloor Mapping Lab
- ▶ West Coast & Polar Regions Undersea Research Center
- ▶ VANTEC
- ▶ Vecolia Environmental Services
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ROVs in Treacherous Terrain: Science Erupts on Loihi, Hawaii's Undersea Volcano
A competition that challenges students to design and build ROVs that explore the Loihi seamount off the coast of Hawaii's Big Island



Courtesy of Steve Van Meter/VideoRay

Members of the 2009 EXPLORER class champion team from Long Beach City College (California) demonstrate good safety practices - and good attitudes!

An exciting and educational competition for high school and college students that:

- ▶ facilitates connections among employers, technical professionals, students, and educators
- ▶ promotes the development of technical, problem solving, and teamwork skills
- ▶ increases the awareness of marine-related technical fields, employers, and careers
- ▶ highlights undersea volcanoes and the role that ROVs play in their science and exploration

For more information on how you can participate, contact:

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Web site: www.marinetech.org/rov_competition/index.php
 Front Cover Photo: *The MATE competition puts students up to their elbows in ROVs.*



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9th Annual International Student ROV Competition
ROVs in Treacherous Terrain: Science Erupts on Loihi, Hawaii's Undersea Volcano



University of Hawaii at Hilo
Hawaii's Big Island
June 24 - 26, 2010



MATE
 MARINE
 ADVANCED
 TECHNOLOGY
 EDUCATION
 CENTER



MTS
 marine technology society



UNIVERSITY OF HAWAII
HILO



Department of Research & Development

Courtesy of the MATE Center

Using ROVs to Teach Technical Skills

What?

The Marine Advanced Technology Education (MATE) Center and the Marine Technology Society's (MTS) ROV Committee are organizing the 9th annual international student remotely operated vehicle (ROV) design and building competition. The competition will take place in June 24-26 at the University of Hawaii at Hilo on Hawaii's Big Island.

Why?

With the scientific exploration of underwater volcanoes as the theme, the competition goals are to increase the awareness of marine technical fields, help students develop the skills necessary for careers in marine technology, and connect students and educators with employers and technical professionals.

Who?

Middle and high school, community college, and university students compete. Employers (including marine industries, research institutions, professional societies, and government organizations) and working professionals support the teams with funds, facilities, equipment, materials, and technical expertise.

Promote Your Company, Develop Your Workforce

- ▶ Help to support the development of your future workforce
- ▶ Increase your company's visibility through the MATE web site and conference presentations
- ▶ Gain publicity via advertisements and articles published in industry journals
- ▶ Include your company's logo on the contest materials, including banners at the event
- ▶ Attend the competition and display company materials and products, and meet potential employees at the **Ocean Career Expo**, a regularly scheduled part of the international event
- ▶ Post your job announcements on the MATE Center's online job board
- ▶ Connect with skilled interns through MATE Technical Internship Program
- ▶ Gain access to graduates from technical programs of MATE partner colleges

Support for Competing Teams

- ▶ **Team Support**
You can help teams by contributing:
 - Funds for travel, housing, and meals
 - Building materials and equipment
 - Access to workshop facilities
 - Time and technical expertise as mentors
- ▶ **Team Support**
High-profile sponsorship opportunities include:
 - Kick-off reception
 - Technical workshops and seminars
 - Lunches
 - Event venue
 - Awards banquet and ceremony
- ▶ **Awards and Prizes**
Supporting organizations can help recognize teams by providing:
 - Trophies, plaques, and event t-shirts and patches
 - Company products, such as cameras, thrusters, tethers, tools
 - Trips to subsea facilities or on board vessels
 - Cash awards



2009 was the M.A.T.E. Robotics team from Waltrip High School's (Texas) first trip to the MATE international competition.

About the Organizers

The **Marine Advanced Technology Education (MATE) Center**, headquartered at **Monterey Peninsula College** in Monterey, California, is a national partnership of community colleges and other educational organizations, research institutions, professional societies, government organizations, marine industries, and working professionals. Established in 1997 with funding from the **National Science Foundation**, the Center's mission is to improve marine technical education in the U.S. and thereby prepare individuals for ocean occupations.

www.marinetech.org

The **Marine Technology Society's (MTS) ROV Committee** was created in 1978. The Committee's mission is to promote interchange of technical information among industrial, academic, defense, and other organizations in the areas of ROVs, undersea robotics, and artificial intelligence; provide speakers to academic institutions to increase the participation of students in the society and areas of ROV and undersea technology; and produce technical publications related to ROV technology.

www.mtsociety.org
www.rov.org

About the University of Hawaii at Hilo

The **University of Hawaii at Hilo**, with approximately 4,000 students, is located on the island of Hawaii. One of ten branches of the state-supported University of Hawaii System, UH Hilo offers 36 undergraduate, six master's and two doctoral degree programs. With the finest astronomical viewing site in the world, 266 miles of coastline, 11 of the world's 13 climate zones, abundant agricultural lands in diverse growing areas, active volcanoes, and unique species, the island of Hawaii serves as a natural learning laboratory for such programs as marine studies, astronomy, biology, environmental studies, geology, and Hawaiian studies.

www.uhh.hawaii.edu



Courtesy of Steve Van Meter/Videoray

Good concentration and attention to detail helped Heritage Collegiate (Newfoundland and Labrador, Canada) students pilot their team to second place in the 2009 RANGER class.