

# ROV Teacher Workshop Jan. 7, 2006

Sponsored by: Stellwagen Bank National Marine Sanctuary



Become familiar with the concepts and tools needed for ROV building



Learn about real-life deployments of ROVs in our national marine sanctuaries



Receive tips for competing in regional and national student ROV competitions

Remotely Operated Vehicles (or ROVs) have become a key tool in underwater exploration. This workshop provides basic information about this important technology, ways to introduce the topic into your HS curriculum, and advice for competing in the regional and national ROV building competitions.

**DATE:** Saturday, January 7, 2006  
**TIME:** 8:30am - 6:00pm  
**COST:** \$25  
**LOCATION:** Mass. Maritime Academy, Buzzards Bay, Electronics Lab, Rm. 212 Science Building

The program fee will cover morning snacks, lunch, textbook, and all handouts and supplies.

Schools may send a single teacher or teams of 2-3 individuals, including a student representative. Teams will be encouraged to work together during the workshop. For schools interested in developing a new ROV program, a team approach is highly recommended. Schools with established robotics programs may be able to easily expand their curriculums to incorporate these types of underwater ROVs.

## SPONSOR:

Stellwagen Bank Nat. Mar. Sanctuary

## CO-SPONSORS:

Marine Technology Society – NE  
Massachusetts Marine Educators  
Massachusetts Maritime Academy

## INSTRUCTORS:

Michael Bastoni – Plymouth North High School  
Paul McGuinness – Cambridge Rindge & Latin  
Matt Naiman – Woods Hole Oceanographic Inst.  
Jim Case – Marine Technology Society-NE  
Anne Smrcina – Stellwagen Bank NMS

ROV building allows students to incorporate key science and technology learning standards into a project that shows real-world applicability.

## MASSACHUSETTS HS SCIENCE AND TECHNOLOGY LEARNING STANDARDS:

Engineering Design  
Construction Technologies  
Motion and Forces  
Conservation of Energy & Momentum

Workshop sponsors are attempting to obtain approval for the granting of 10 PDPs for participation in this workshop.

There are a limited number of spaces for this hands-on workshop. It is recommended that interested educators apply ASAP. For more information, contact Anne Smrcina, SBNMS, at 781-545-8026 x204 or e-mail [anne.smrcina@noaa.gov](mailto:anne.smrcina@noaa.gov).



NATIONAL MARINE  
SANCTUARIES



Stellwagen Bank National Marine Sanctuary researchers use ROVs to explore deep boulder reefs, other natural habitats and shipwreck sites. Painting by Mary Jane Brush.

# Remotely Operated Vehicle Teacher Workshop

January 7, 2006

## Registration Form

Deadline: December 30, 2005

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

\_\_\_\_\_

E-Mail: \_\_\_\_\_

Home Phone: \_\_\_\_\_

School Name: \_\_\_\_\_

School Address: \_\_\_\_\_

\_\_\_\_\_

School Phone: \_\_\_\_\_

Grades/Classes Taught: \_\_\_\_\_

Years of Teaching Experience: \_\_\_\_\_

Are you interested in forming a team for the regional and national ROV competitions?

(circle one) YES NO

Are you interested in starting an afterschool ROV program?

(circle one) YES NO

Will your school be instituting a unit on ROV building within the regular curriculum?

(circle one) YES NO If yes, when? \_\_\_\_\_

If yes, where will the ROV program be placed? \_\_\_\_\_

(e.g., physics, robotics, shop, marine science)

I agree to develop one lesson plan based on the ROV Workshop for use by the Stellwagen Bank National Marine Sanctuary and other sponsors. I understand that the sanctuary is attempting to arrange for PDP credits but cannot promise this feature at this time. If successful, the award of PDPs is contingent upon completion of the post workshop curriculum unit and attendance at the full day program.

Signature: \_\_\_\_\_

Mail this form and a \$25 check (made out to MTS-NE) to:

Anne Smrcina, Stellwagen Bank NMS, 175 Edward Foster Road, Scituate, MA 02066