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# NEWSLETTER

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WOODS HOLE  
OCEANOGRAPHIC INSTITUTION



MAY 1990

## JASON Project focuses on War of 1812

WHOI's Remotely Operated Vehicle (ROV), JASON, began its long-awaited expedition in Lake Ontario this year as an almost completely new vehicle.

With new robotics equipment, fiber optics, and sonar capabilities, JASON dove 300 feet beneath Lake Ontario to examine the wrecks of two War of 1812 battleships, the HAMILTON and SCOURGE.

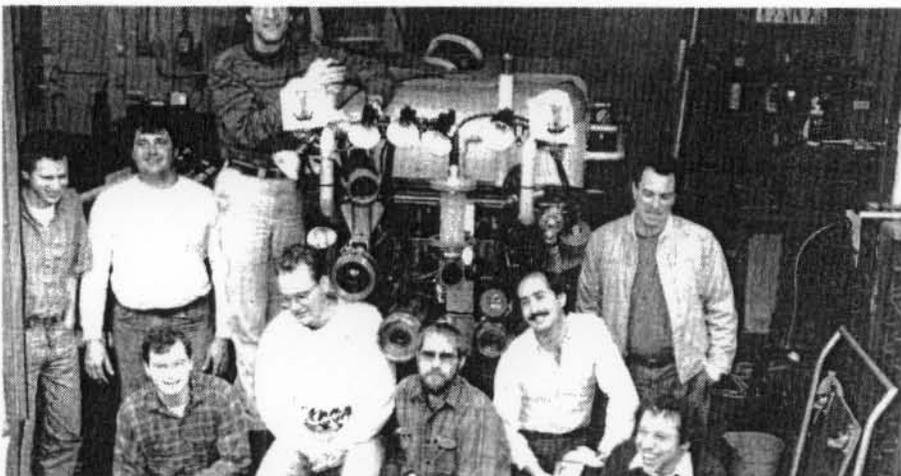
Last year, when JASON explored an underwater volcano and an ancient shipwreck site off Italy in the first JASON Project, the ROV was mainly an optical creature, according to Dave Gallo, a visiting investigator at WHOI. This year, scanning sonar was added to enable JASON to locate objects 100 feet ahead.

Also new to JASON this year is laser, which allows the vehicle to determine the distance and shape of underwater objects and produce a preservable image.

The new equipment got its first underwater test only two days before live broadcasting of the HAMILTON and SCOURGE expeditions began April 30.

Over 250,000 students in grades 4 through 12 were able to watch the broadcasts this year through satellite hook-ups at 14 sites, including WHOI, across the country and in Canada.

WHOI hosted 800-1,000 people a



Members of the Deep Submergence Laboratory who worked on the JASON Project: (Standing) Marty Marra, Steve Gegg, Andy Bowen, Martin Bowen. (Sitting) Dave Mindell, Hagen Schempf, Bob Elder, Bob Weiman, Dana Yoerger. (Photo by Shelley Lauzon)

day at Redfield Auditorium and the Exhibit Center during the two-weeks of live broadcasts April 30-May 12. Eighty volunteers, most of them associates and employees, served as ushers and answered questions during the five daily one-hour live shows.

Response from the students who viewed the broadcasts was very positive, although some students were especially enthusiastic.

Katie Lynch, a student from Cotuit, saw five broadcasts of the expedition, and was one of the students who was able to ask expedition leader Bob Ballard of WHOI a question through a satellite link to the site on Lake Ontario.

Katie also participated in the JASON

Project several times last year, and wrote a paper on it for school. She sent a copy of the paper to Ballard, and has corresponded with him since.

This year's expedition included a week of imaging and documenting on each of the sunken battleships. Although nothing was recovered from the wrecks, one of the goals of the project was to provide information to Canadian officials on whether recovery was a viable option.

JASON has made four cruises each year, including two for the Navy, one as an educational program and one for scientific investigation.

A special program was hosted by

*Please turn to next page*

# WHOI sponsors two Junior Argonauts

WHOI sent two Cape Cod students to Canada this month to observe firsthand the operations of the JASON Project.

Margaret Bothner, 13, of Falmouth, and Jason Amaru, 15, of Orleans, spent three days in Canada, and both said they came back from the trip with a broader knowledge of the many different scientific fields available.

"I'm very interested in science," Bothner said. "This helped. I'm more interested now."

The students, who were two of 34 "Junior Argonauts" sent by the organizations associated with the JASON Project, were given a tour of the operation aboard the ERIE WEST barge, and spent time in the different control rooms set up there.

Amaru said he sat in the control room and spoke with Bob Ballard before one of his live broadcasts, and was also interviewed by several journalists about his experiences.

Amaru said he was also able to talk to Margaret Rule, chief archaeologist on the JASON Project, about her son's college and studies in science.

"Everyone was busy, but they were



Junior Argonauts observe the inner workings of the JASON Project. (Photo by Shelleyt Lauzon)

nice enough to find time to talk," he said.

Amaru is interested in going into either marine biology or oceanography. He said he gets his interest in the ocean from his father, a commercial fisherman.

Bothner said she was most interested in the computer imaging room, where the various images JASON sent up were edited and incorporated into

the live broadcast. She said she also appreciated hearing from the archaeologists about the events that led to the sinking of the HAMILTON and SCOURGE in 1813.

In addition to observing the JASON Project at work, the students viewed Niagara Falls from both the American and Canadian sides and toured Fort Niagara and the Flatrock Tunnels in Canada.

## JASON Project

*Continued from front page*

WHOI May 7 for congressmen and other invited guests at the National Geographic Society in Washington.

Two of the guests, Senators Edward Kennedy and Barbara Mikulski, watched a student broadcast and then had an opportunity to speak with Ballard live.

Ballard told the senators he hoped the JASON Project could be expanded to reach many more students than it currently does.

"It's not a technological problem," Ballard said. "It's just getting the word out."

He said the cost of the project is only

a few dollars per student.

Ballard and head archaeologist Margaret Rule also discussed the idea of underwater historic parks that could allow patrons to view underwater sites through satellite hook-ups.

Such a proposal would probably need to be international, Rule said, although North America could set an example for the rest of the world at sites in the United States and Canada.

Ballard said such a park would cost under \$1 million to set up, making it comparable to other national parks.

"I'm sure it will happen in our lifetime," Ballard said.

## Special Thanks

Showings of the JASON Project broadcasts could not have happened without the help of the 80 dedicated volunteers who handled reservations, seating and question and answer periods.

Special thanks go out to the following volunteers, who contributed an extraordinary amount of their time:

Rueben Baker Jr.	Marga McElroy
Lee Campbell	Laurie Murphy
Ernie Charette	William O'Brien
Dave Gallo	Barbara Peri
Rosemary Hoskins	Barrie Walden

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# Commencement weekend at WHOI

John Knauss, administrator of the National Oceanic and Atmospheric Administration, will be the guest speaker at the WHOI/MIT Joint Program graduation ceremony June 15 on the dock.

Twenty students will be eligible to receive their degrees in the ceremony.

WHOI holds a commencement ceremony once every 10 years. Students who graduated in the past 10 years will be invited to participate in the procession and will be recognized. Only those graduating this year will receive diplomas.

Members of the Joint Program faculty at the Massachusetts Institute of Technology and the staff at WHOI will also be invited.

After a Commencement Reception, also to be held on the dock, the Joint Program graduates, their advisors and families will be invited to join the Trus-

tees and Corporation members for the Associates Dinner Dance, which follows the Annual Meeting of the Trustees and Corporation, to be held June 14 and 15.

## Symposiums

A "Health of the Oceans" symposium is planned for Saturday, June 16 from 9 a.m. to 1 p.m. at Redfield Auditorium.

Speakers and topics will include:

Derek Spencer, Introduction to the Oceans;

Judy McDowell, Ocean pollution and marine ecosystems;

John Farrington, Chemical perturbations in the ocean; the influence of man;

Fred Sayles, Radioactivity in the oceans;

John Stegeman, The Health of marine organisms;

Jim Broadus, Ocean pollution, soci-

ety and the law.

A light lunch will be served for symposium attendees.

The symposium and Commencement will kick off this summer's 60th Anniversary celebration series. Other events will include an Open House on Meteor House grounds on July 18, a Global Climate Change Panel on July 27, and a summer "Cool-off" series featuring WHOI research in the Arctic and Antarctic on August 2 and 30.

Look for more information on these in next month's Newsletter.

## Ship Notes

### RV ATLANTIS/ALVIN

On April 30, RV ATLANTIS and DSV ALVIN departed Puntarenas, Costa Rica on Leg VI of Voyage #125. This leg will carry the vessels to Academy Bay, Galapagos Islands, where it was scheduled to arrive May 19 for a stay until May 22.

The purpose of the cruise is to undertake geological studies of major fault scarps at the Hess Deep on the East Pacific Rise. A total of 12 dives by DSV ALVIN will be made in the vicinity.

### RV OCEANUS

RV OCEANUS departed May 22 on Voyage #220. It will be conducting remote sensing research and will return to Woods Hole June 13.

### RV KNORR

Work continues on the final upgrade of RV KNORR. The vessel has been undergoing lengthening and rehaul in Amelia, Louisiana.

## Update on WHOI retreat

More than 30 members of WHOI's scientific and management staff attended a workshop at the Ocean Edge Conference Center in Brewster May 8-10. The agenda focused on creating and Institutional Mission Statement for WHOI and examining several of the year's internal studies and initiatives so that complementary internal and external Institutional strategies could be created. The retreat provided a positive, interactive forum during which a commitment to the Institution as the world leader in ocean science was always evident.

Members of the Institution's committees on Science Strategy, Sea-Going Facilities, Campus Master Building Plan and Technology Transfer reviewed the recommendations and highlights of their work. John Farrington, WHOI's new Associate Director for

Education, effective in August, gave a presentation on WHOI's potential educational initiatives, and Judy McDowell gave a review of the Assembly's recent working climate questionnaire.

With this information as background, the group was divided into three working groups which focused on Science Strategy (chaired by Bob Gagorian), External Strategy (chaired by Charley Hollister) and Internal Strategy (chaired by George Grice). Each attendee had an opportunity to participate in more than one issue, providing continuity and breadth to the discussions. A full meeting was held on the last day to summarize each working group and to outline specific plans of action.

More information will be forthcoming in a D.Gram and in future issues of the Newsletter.

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## Purdy named G&G Chairman

Senior Scientist Mike Purdy has been appointed Department Chair of the Geology and Geophysics Department. He will assume the post in January 1991.

Mike is a marine geophysicist and has received international recognition for his research on the crustal structure of the deep ocean, the structure and evolution of the oceanic lithosphere, and the use of seismic methods to study the formation and evolution of the oceanic crust.

He came to WHOI in 1974 as a

postdoctoral scholar and was appointed to senior scientist in 1987.

Purdy will be succeeding Dave Ross, who will return to full-time science and continue as Coordinator of the WHOI Sea Grant Program.

Because of a busy field program, Mike cannot assume the Chair for several months. Senior Scientist John Ewing will serve as acting chairman from now until October. Dave Ross will return from October to January to assist with budgeting and salary review.

## Luyten to head P.O. Dept.

Jim Luyten will take over as Physical Oceanography Dept. Chair July 1.

Jim came to WHOI from Harvard University in 1971. He has served as an observationalist, scientific manager for the Moored Array Project, and theoretician interested in low frequency variability and the general circulation of the ocean.

He will be succeeding Bob Beardsley, who plans to return to full-time science after five years as Department Chair.

## Olmstead named ASTERIUS master

Dave Olmstead, former second mate of the OCEANUS, was named master of the ASTERIUS last week.

Olmstead has worked for WHOI since 1981, on the OCEANUS since 1984, and on the LULU prior to that.

He succeeds Dick Colburn as master of the ASTERIUS. Colburn retired in

December.

The 40-foot ASTERIUS can be rented to researchers by the hour. Olmstead said it has been used for collecting water samples, doing bottom grabs and SCUBA diving.

He said use of the ship has been up this year.

## Researchers attend AGU conference

Fourteen WHOI researchers will present papers at the spring meeting of the American Geophysical Union May 29 to June 1 in Baltimore.

The conference will include discussions on carbon dating techniques, new findings about climate change, how ice volcanos work on Triton (Neptune's moon), and other current

research topics.

WHOI researchers who will present papers include: Pat Lohman, Jian Lin, Mike Purdy, J.P. Manning, T.O. O'Brien, G.M. Raisbeck, Mike Bacon, Steven Holbrook, Mark D. Kurz, Deborah K. Smith, Peter R. Shaw, E.T. Sundquist, Jim Churchill, Dave Gallo and Bob Ballard.

## DeLong wins Young Investigator award

Edward F. DeLong, Assistant Scientist in the Biology Department, has been awarded a Young Investigator Award from the Office of Naval Re-

search.

His project title is "Phylogenetic Analysis of Bacterial Assemblages Associated with Marine Macroaggregates."

## Dorman visits Soviet Union

WHOI Director Craig Dorman left Woods Hole on May 14 for a three-week trip to the Soviet Union.

The purpose of Craig's trip is to find out what opportunities may exist for collaborative research efforts.

Craig met with WHOI investigators before leaving to find out what issues and problems they wanted him to address during his visit.

While visiting the country, Craig will participate in lectures and discussions at several research institutions.

Among his stops will be the Shirshov Institute of Oceanology, the USSR Academy of Science, the Marine Hydrophysical Institute, and the Arctic and Antarctic Research Institute.

Talks will include a meeting with the Commission on World Ocean Problems, a seminar at the Institute of World Economy and International Relations, and Craig's lecture at the State Oceanography Institute, "The WHOI - Now and in the Future."

Craig is travelling with his wife Cynthia, WHOI scientist Terrence Joyce, and his wife Karen.

## BABY BOOM

Assistant Scientist Marty Kleinrock and his wife, Cindy, have announced the birth of their second child.

Jennifer Evelyn was born April 30 at Jordan Hospital in Plymouth. She weighed 8 lbs., 14 oz., and was 22 inches long.

Jennifer has one brother, Jacob, age 17 months.

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# New housing unveiled at Quissett

Twelve new units of Institution housing on Oyster Pond Road were unveiled at an open house May 4.

About 200 people came out to see the housing, which is the first to be built by the Institution on the Quissett Campus.

It consists of 11 two-bedroom units and one handicapped-accessible three-bedroom unit.

The furnished units will rent for \$550 a month including utilities. They will be available only to students during the summer months, and to students, employees and investigators during the off-season.

Only joint program students are able to rent the units year-round.

Housing Coordinator Many Jane Tucci says there is currently no waiting list for the housing, but she expects them to be filled for the summer.

The apartments consist of a living room, dining area and kitchen on the first floor, and two bedrooms and a bath on the second. Each unit also has a deck.

The units were designed by Jacobs



The Carolyn B. Miller Housing on Oyster Pond Road was unveiled at an Open House May 4. (Photo by Tom Kleindinst)

and Greenberg of Falmouth, who also designed the addition to the Clark Laboratory.

Construction was done by Chapman

Construction of Mashpee.

The housing is named for Carolyn B. Miller, who served as WHOI's housing director for many years.

## Paper recycling project gets underway

The newly-formed recycling committee is urging WHOI employees to put boxes next to their trash cans to collect recyclable paper.

The committee has worked out an agreement with South Shore Recycling, which will pick up the paper from two central locations and pay WHOI about \$80 a ton, depending on market fluctuations.

Money raised may be used to fund future recycling projects such as a plastics recycling program, establishing a collection station or increasing awareness.

Volunteers have been recruited to collect paper from each building on the campus and deliver it to one of the pick-up points. Employees should have received notices telling them who their building volunteers are.

The paper collected can be a mix of computer paper, printed, white paper and copier paper. Staples are okay.

Do not recycle colored paper, chemically treated paper from fax machines or thermal printers, or envelopes with cellophane windows.

The quality of the recycled paper influences its value.

In addition to earning money for other recycling committee projects, recycling paper will help the environment. The Recycling Committee points out that each ton of recycled paper saves more than three cubic yards of landfill space, and saves 380 gallons of oil.

For more information on recycling, or to offer suggestions, contact one of the following committee members: Dave Dubois, ext. 2586; Sheila Griffin, 2884; Susan Kadar, 2329; John Molongoski, 2735; Eric Spenser, 2242; Bob Weiman, 2606; or Chris Wooding, 2722.

## NEW FACES



Jane A. Caruso  
Staff Assistant III  
Director's Office  
Smith 206, x2723  
C. Innis



Megan J. Clark  
Accounting Asst.  
Controller's Office  
Challenger, x3253  
M. Tavares



Daniel A. Cohen  
Editorial Assistant  
Oceanus Magazine  
9 Maury Ln., x2386  
P. Ryan/T. Hawley



Charles E. Corry  
Research Specialist  
Physical Oceanography  
Clark Ad., x3306  
T. Joyce



Calvert F. Eck  
Research Engineer  
AOPE  
Smith 301L, x3361  
H. Berteaux



Ruth E. Goldsmith  
Staff Assistant II  
External Affairs  
Bell House, x4804  
P. Dudley Hart



Peter B. Landry  
Research Asst. III-elec.  
Physical Oceanography  
Smith 201, x2246  
G. Bond



Elizabeth Oliver  
Accts. Payable Spvsr.  
Controller's Office  
Challenger, x2335  
P. Duffy



Robert S. Pickart  
Assistant Scientist  
Physical Oceanography  
Clark 340A, x2858  
R. Beardsley



Ellen Prihodko  
PIO Writer  
Public Info. Office  
Co-op, x2271  
S. Lauzon



Bo Qiu  
Postdoctoral Investig.  
Physical Oceanography  
Clark 340B, x2845  
T. Joyce



Lesley M. Helly  
Staff Assistant III  
Director's Office  
Fenno House, x2202  
Pam Hart



Sarah B. Wheeler  
Clerk Typist  
Education  
Clark 2, x3379  
A. Peirson

## Promotions

- Mark A. Altabet (Chemistry)  
to Associate Scientist 3/25/90  
Martin F. Bowen (AOP&E)  
to Senior Research Assistant 3/7/90  
Lee Anne Campbell (G&G)  
to Research Assistant III 4/9/90  
Arthur G. Gaines, Jr. (MPOM)  
to Research Specialist 4/8/90  
James F. Lynch (AOP&E)  
to Associate Scientist 3/25/90  
Nanci A. Pacheco (Personnel)  
to Staff Assistant III 4/8/90

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# Woods Hole during peacetime

## WHOI history 1945-1955

In 1946, WHOI began its post-war program, propelled by former staff members returning from the Armed Forces and the addition of new staff.

The main reason for the Institution's continued activity after World War II was the opportunity presented by the atomic bomb tests at Bikini Atoll for conducting oceanographic investigations.

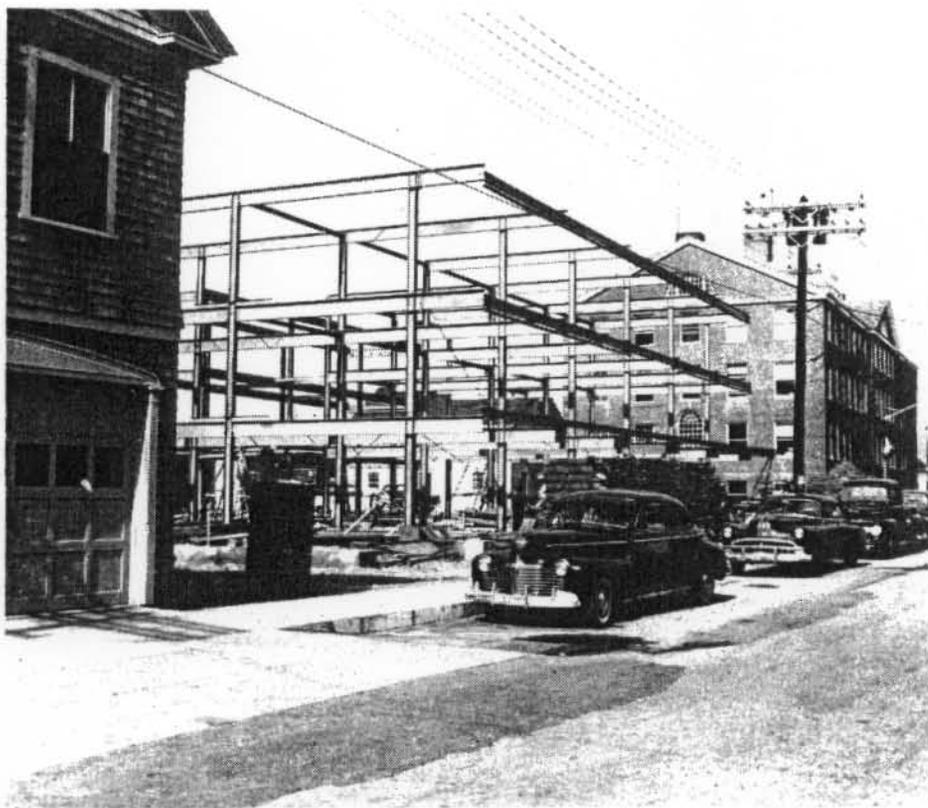
Although much of WHOI's equipment and over 40 staff members were diverted to the Pacific Ocean for this investigation, field work was also done in the Atlantic through contracts with the Government.

The director's report from 1946 stated that the cost of offshore research almost doubled from the period just before the war. Without Government subsidy, the Institution would not have been able to afford field work, except for a small program in local waters.

In 1950, WHOI continued peacetime research and took part in a survey of the Gulf Stream with the U.S. Navy, the Fish and Wildlife Service and the Royal Canadian Navy. The course and other features of the stream were charted from Cape Hatteras to Grand Banks, making it the largest scaled survey of the Gulf Stream ever done.

WHOI's leadership changed in 1950. Dr. Edward H. Smith took the reins from Columbus O'D. Iselin, who stepped down after a 10-year term as Director to devote more of his time to science.

Research space was tight throughout the late 1940s at Woods Hole. Some space was rented from the Marine Biological Laboratory, and in 1950,



CONSTRUCTION on the Laboratory of Oceanography, now called the Smith Building, was completed in 1954. The site was originally owned by the Marine Biological Laboratory, and was acquired by the U.S. Navy in 1952. Smith was owned by the Navy until the late 1970s.

plans began to build new space for both research and housing.

In May 1951, the Navy offered to provide 28,000 square feet of office space to WHOI. That offer led to the construction of the Laboratory of Oceanography, now the Smith Building, in 1954. Smith was built on land originally owned by the Marine Biological Laboratory, which the Navy acquired in 1952.

Although WHOI has operated the building since its construction, Smith was owned by the Navy until the late

1970s.

The Institution attempted to broaden its base of support after the war, and began receiving funding from the National Science Foundation and Commonwealth of Massachusetts in addition to the U.S. Department of Defense.

The Associates Program began in 1952 to encourage private sponsorship. In the first year, WHOI attracted 50 Associates, most of them summer neighbors interested in the work underway at the Institution.

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# New discount cards at benefits office

## Discount cards

Discount club cards for Universal Studios Florida Fan Club are now available at the Benefits Office. The office also continues to offer club cards for Sea World and the Magic Kingdom, including Epcot Center and MGM Studios. Call the Benefits Office at x2295 for more information.

During the 1990 summer months, Sea World of Florida is offering \$5.25 off adult admission and \$3.20 off child admissions to cardholders.

The old Magic Kingdom card expired in March, 1990. New cards, good until 1992, can be picked up at the Benefits Office. In addition to Magic Kingdom discounts, club card members can receive up to 23 percent off daily car rentals at participating National Car Rental locations.

## Health club memberships

Blue Cross and Blue Shield is offer-

## Arctic researchers meet in Woods Hole

About 25 members of the US Arctic Research Commission met in Woods Hole April 10-11 to discuss defense, environmental research and international relations in the Arctic Ocean.

WHOI President John H. Steele is Vice Chairman of the Presidential Commission, founded in 1984 to develop and assist in implementing a national arctic research policy. Steele was appointed to the commission by former President Ronald Reagan.

Other commissioners attending the WHOI meeting included representatives of the National Science Foundation and the US Coast Guard.

The commission will meet again next August in Greenland.

ing discounts on health club memberships.

Local clubs offering discounts are: The Body Shopp and Tara Hyannis Hotel in Hyannis; Island Health and Raquet Club in Oak Bluffs; Fitness First in Plymouth; Sports Site in Sandwich; Gold's Gym in New Bedford; and Mid Cape Raquet Club in South Yarmouth.

## Eyeware discounts

Blue Cross/Blue Shield is now also offering a discount on eyeware.

Show your BC/BS card at specified retailers for a discount of 10 percent or

more off frames, lenses and eyeware supplies. Eye exams are not included.

The following retailers are participating:

In Falmouth: Falmouth Vision Center.

In Hyannis: Cape Opticians, Inc.; Donald P. Snyder and Mark F. Snyder; Robert L. Pratt; Jilson-Thoren Opticians; Pearl Vision Center.

In Mashpee: Robert L. Pratt; Pearl Vision Center.

Others are located in Plymouth, Sandwich, South Yarmouth, South Dennis and New Bedford. Call the Benefits Office at x2295 or x2706 for a complete listing.

## Exhibit center reopens June 4

After a two-week opening for the JASON Project, the Exhibit Center closed down for renovations on May 13.

When it re-opens on June 4, the Center will have handicapped access on both floors and a wider stairwell. Asbestos will also be removed.

A new display in honor of WHOI's 60th anniversary will be featured this summer.

The exhibit center will be open 10 a.m. to 4 p.m. Monday through Saturday through mid-October. Many new gift items, some available only at the Exhibit Center, will be on sale.

## IN MEMORIAM

### Alwyn L. Carter

Alwyn L. Carter, 77, a retired electronics technician for the Woods Hole Oceanographic Institution and the National Marine Fisheries Service, died at Falmouth Hospital on April 23.

Carter was born and raised in Maine, and moved to Woods Hole in the early 1950s. He worked at WHOI and later at the Fisheries until retiring in 1975.

Carter was a Navy veteran of World War II, serving England aboard a destroyer tender from 1943 to 1945. He

was a member of the Falmouth Veterans of Foreign Wars, and was a ham radio operator from the early 1930s, holding the call letters W1KCL.

He is survived by his wife, Bernice (Thurston) Carter of Falmouth; two daughters, Gloria Moore of Franconia, N.H., and Lorraine Carter of Acton; a son, Richard Carter of North Falmouth; eight grandchildren and four great grandchildren.

Following a private service, burial took place at the Massachusetts National Cemetery in Bourne.