

Alaska Marine Safety  
Education Association

A community-based  
information & training network

Volume 17, Number 3  
Fall 2001



# MARINE SAFETY UPDATE

## Instructors Sought for Alaska Recreational Boating Safety Course



AMSEA, in cooperation with the State Office of Boating Safety, has completed an Alaska-relevant, hands-on boating safety curriculum entitled *Alaska Water Wise*. The eight-hour course is approved by the National Association of State Boating Law Administrators (NASBLA) and is often valid for a reduction in insurance rates. NASBLA-approved courses have reciprocity in other states.

The basic course includes segments on preparing for a safe boat trip, emergency signals, boating operations, boating emergencies, cold-water survival skills, navigation/rules of the road and boating requirements. The curriculum is expandable so that other non-NASBLA approved topics specific to Alaska can be included. The curriculum includes a course outline, Power Point™ presentations, skills sheets and a 50-question test.

Beginning in January, AMSEA will offer 1<sup>st</sup>- to three-day *Alaska Water Wise* instructor courses in Alaska. In 2002, four instructor-training courses will take place in Southeastern Alaska, the Anchorage/Fairbanks area, Bethel, and Kotzebue. In addition, the six-day AMSEA Marine Safety Instructor Training courses will include an optional seventh day for those who want to add the *Alaska Water Wise* course to their personal training arsenal.

Current AMSEA instructors are encouraged to use the *Alaska Water Wise* curriculum. Trained AMSEA instructors are eligible to take a short 1<sup>st</sup>-day *Alaska Water Wise* instructor class that will introduce the curriculum and the policies of the Alaska State Boating Office that administers this program. Those with no AMSEA instructor training may take the three-day *Alaska Water Wise* instructor course.

Anyone interested in teaching this course is requested to contact AMSEA as soon as possible!

### INSIDE THIS ISSUE:

Marine Safety Training Opportunities....	2-3
GPIRBS Explained .....	4-5
Borrowing AMSEA Equipment .....	6
AMSEA Instructors Keep Busy .....	7
Navigational Charts on the Web .....	10

## *Marine Safety Training Available*

### **DRILL INSTRUCTION COURSES IN ALASKA**

Bristol Bay area — BBEDC, (800) 478-4370  
 Homer — Ocean Safety Services, (907) 235-7908  
 Kodiak — Joycrafts, (907) 486-6293  
 Naknek — Debby Robertson, University of Alaska, (907) 246-4292  
 Prince of Wales Island — Pete Willburn, (907) 828-3924  
 Seward — AVTEC, (800) 478-5389  
 Sitka & other communities — AMSEA, (907) 747-3287

### **OUT-OF-ALASKA DRILL INSTRUCTION**

Bellingham & Seattle, WA — Fremont Maritime Services, (206) 522-5377 or Washington Sea Grant, (206) 543-1224  
 California — Coastwise Marine Safety, (707) 464-2934  
 Florida — Florida Marine Career Institute, Frank Myers, (727) 937-5924  
 New Jersey — Thompson Maritime, (908) 899-7990  
 Oregon — Clatsop Community College, (503) 325-0910 or, in Newport, Ginny Goblirsch (503) 265-3463  
 Rhode Island — Vessel Safety Corp., Paul Helland, (401) 641-6598  
 Texas — Israel Linarte, (956) 943-7935  
 Westport, WA — Washington Sea Grant, (360) 875-9331

### **Symposium to Feature Survival Experts**

AMSEA and S.E.Region EMS Council will hold a Cold Emergencies Conference as part of the annual EMS symposium in Sitka on April 10-13, 2002. AMSEA will bring in Dr. Martin Nemiroff to discuss hypothermia and Prof. John Leach from the U.K. to discuss survival psychology. On April 10 and 11, a panel will convene to review the State of Alaska hypothermia guidelines.

This symposium provides an excellent opportunity for AMSEA instructors to update and refresh their knowledge! For more information, contact SEREMS at (907) 747-8005.

*Marine Safety Update* is published quarterly by the Alaska Marine Safety Education Association to provide information that furthers the safety of everyone who spends time on the water. Subscriptions are free with paid memberships in AMSEA, or can be purchased for \$10.00 per year (\$20.00 outside the U.S.). Sustaining, supporting and donor memberships receive recognition in this publication.

Funding for this publication is provided by the members of AMSEA. Memberships and all contributions to AMSEA are tax-deductible. Membership runs from January 1 through December 31. Dues received after October 1 are credited to the following year.

Contributions to this publication and letters to the editor are most welcome. Please submit them to: Editor

#### ***Marine Safety Update***

P.O. Box 2592  
 Sitka, AK 99835  
 or fax (907) 747-3259  
 or e-mail [amsea@alaska.com](mailto:amsea@alaska.com)

Articles printed in *Marine Safety Update* are © 2001, by the Alaska Marine Safety Education Association, and may be reprinted only with prior permission from AMSEA.

Editing, layout and design of *Marine Safety Update* provided by Kristie Sherrodd of Sound Strategies, Sitka.

## **Seward to Host Marine Safety Instructor Training Course**

AMSEA's next scheduled Marine Safety Instructor Training (MSIT) course will take place at the AVTEC Facility in Seward April 1-7, 2002. In conjunction with the MSIT class, AMSEA will also offer an STCW Train-the-Trainer endorsement for those training professional mariners, as well as a 1°-day *Alaska Water Wise* Instructor course for recreational boaters. For more information contact AMSEA at 907-747-3287 or [amsea@alaska.com](mailto:amsea@alaska.com)

## Marine Safety Instructor Training Heads Down East

Thanks to a supplemental appropriation from NIOSH, AMSEA will hold a Marine Safety Instructor Training (MSIT) class in Maine. This class is the first step in creating an instructor network in New England.

Maine has experienced an increase in fishing fatalities in the past few years. Thus, safety advocates there are interested in creating a community outreach education program based on the AMSEA model.

AMSEA staff attended a fishing safety forum in Augusta, Maine in late October. Other recruitment for potential instructors will take place in the next few months. Plans are to hold the Maine MSIT class before June 30, 2002.

In the past, AMSEA MSIT classes have been held in Washington, Oregon, New Jersey and Virginia in addition to the customary Alaska courses.

## USMSA Safety Seminar Scheduled in Sitka

The U.S. Marine Safety Association (USMSA) is considering holding a three-day safety seminar in Sitka early next summer. *Sitka III* would mark the third time that USMSA has held its safety seminar in Sitka.

The seminar allows safety equipment manufacturers to test their equipment in Alaska and to practice survival procedures. Part of the mission statement of USMSA is to "promote the development and implementation of the highest possible performance, manufacturing, maintenance, service and training standards for all lifesaving, survival, fire safety and emergency rescue equipment." More on USMSA can be found on their website at [www.usmsa.org](http://www.usmsa.org). Dates for this seminar will be available soon.

**You Depend On It...**  
**The Best Equipment, The Best Crew and The Best Information**

**Attend the largest West Coast event for the entire commercial marine industry.**



**FISH EXPO**



**WorkBoat**  
NORTHWEST

For more information and FREE online registration visit:

**[www.fishexposeattle.com](http://www.fishexposeattle.com)**

November 15-17, 2001  
Washington State Convention & Trade Center  
Seattle, WA  
**800-454-3005**

## FUNCTION OF GPIRBS EXPLAINED

By Charlie Bond, Ralston Cunningham Assoc., Inc.

The mating of the 406 MHz EPIRB with the GPS system — called GPIRBS — has created many misunderstandings. To incorporate a GPS receiver into the EPIRB entails several major engineering challenges.

The first is how to turn on the GPS and perform a satellite initialization (cold start) using the same battery as that which runs the EPIRB. The GPS is a heavy battery drain. The initialization normally takes six to seven minutes, but can take longer under rough sea conditions.

The second is how to install the GPS antenna where interference from the 121.5 homing signal and the 406 microburst will not affect the operation of the GPS antenna.

To solve the first problem, one way to save power is to limit how long the GPS is turned on to look for and download a position. Adding the GPS to an existing standard 406 requires a real compromise in how long the GPS can be turned on. The battery that runs the EPIRB still needs to meet the minimum requirements of COSPAS SARSAT (the polar orbiting Search And Rescue SATellite system), which is operational for 48 hours at -40 degrees C. The only way to meet the requirement is to limit the effectiveness of the GPS engine by limiting how long it turns on.

Let's take a hypothetical GPS addition to an existing EPIRB. Using the same case and battery as their standard 406 EPIRB, they might turn on the GPS for only two minutes then turn it off for 20 minutes. Then it turns back on for 2 minutes and off for twenty. It would repeat this mode of operation, thereby saving most of the battery for the 406-signal burst. Is two minutes quick enough to capture a position? In average sea conditions, most literature says it takes six or seven minutes to acquire a position. Only under ideal laboratory conditions would this hypothetical EPIRB have any chance of acquiring a position. Two minutes in the real world simply is not long enough.

GPIRBS such as the ACR Global-Fix, which is

built around a slightly larger case to incorporate more battery, allows the GPS to turn on for a full 15 minutes to give the unit a real chance of initializing and acquiring a position. Then after a 20-minute wait, it turns on for another 10 minutes to update the position. After another 20 minutes, it updates on a five-minute power up and twenty-minute rest period. Only by adding slightly more battery can a GPIRBS have a real chance to initialize and provide the GPS position in a timely manner. In addition, the 121.5 creates a harmonic that can interfere with the reception of the GPS signal. Some manufacturers such as ACR have gone to great lengths to isolate and reduce this harmonic.

To further complicate the GPS-EPIRB mating, there are many myths as to how the system operates.

### **Are GPS/EPIRBS instantaneous?**

Actually, the 406 ID alert is nearly instantaneous. The 1997 GEOSAR (GEOstationary Search And Rescue) satellite system relays your ID number to the Rescue Coordination system in two to six minutes. The GPS signal is added to that signal as soon as it is available. There are two ways to add the GPS position to your signal — put a GPS inside the EPIRB or interface the EPIRB with your vessel's GPS.

When you build the GPS inside the EPIRB it has to do what is called a "cold start," trying to locate itself in the world. Often this will be in the hostile environment of a storm. In poor sea conditions, this can take up to 12 minutes, losing most if not all of the advantage of the "GPS" feature. The interface method updates from your vessel's onboard GPS regularly, instantly adding it to your very first ID alert signal.

### **Do rescue forces use the GPS/EPIRB to follow my drift?**

No. Rescue forces already get regular position updates from the COSPAS-SARSAT satellite system. Think of the GPS position as a "first strike"

*continued on page 5 . . .*

... continued from page 4

## FUNCTION OF GPIRBS EXPLAINED

capability, providing a position to initiate your rescue even before the COSPAS-SARSAT satellites can relay their position information. Your position confirmation and drift calculation come from the COSPAS-SARSAT satellites. Since these six satellites are polar orbiting, gaps in coverage increase as one approaches the equator. NOAA estimates that if the GPS signal is immediate, it will save on the average 46 minutes in your rescue.

### What is the main benefit of adding the GPS position to my ID alert?

Your ID information and initial position are routed to the Search & Rescue Coordination Center that will be handling your rescue. While it is nice that they have your GPS position and while it is true, your rescue starts with a position, the real benefit of the GPS signal added to the 406 Alert is that the Rescue Coordination Center (RCC) responsible for your rescue gets the first alert.

Let me put it this way: Your vessel is home-ported in Puget Sound (or San Francisco) and you cruise out to the Straits of Juan de Fuca (or the potato patch) and you sink. Your EPIRB without the GPS goes up to GOES 9 and about two minutes later, the Rescue Coordination Center in Seattle (or San Francisco) has your ID number, your name, address, phone numbers, and vessel type. They start checking what resources they have available and your position comes in ten minutes later from the COSPAS-SARSAT satellites. They direct their resources to rescue you immediately.

Now, comfortable that the 406 works, you sail off to New Zealand. Again misfortune strikes and you turn on your EPIRB. In about two minutes the signal goes to the satellite and to mission control. Where do they send your alert? They send it to Seattle (or San Francisco), because the GEOSAR system watches the entire Pacific and cannot by itself provide your position. Seattle starts calling your contact phone numbers and then the COSPAS-SARSAT satellite informs the world that you are in New Zealand

waters. Your rescue must now be reassigned to the New Zealand Rescue Coordination Center and they basically have to start over. Had you had an instant GPS position with your 406 Alert, New Zealand would have been handling your rescue from the very first instant.

## FCC RADIO LICENSE: WHO NEEDS ONE?

If you have a vessel used for commercial purposes and you answer YES to any one of the following questions, you need an FCC license:

Do you have single side band equipment on your vessel?

Do you talk to foreign coast stations, such as those in Canada?

Are you required by regulation to carry radio communication equipment?

If you need a license, contact the FCC via the internet at [www.fcc.gov](http://www.fcc.gov) or by calling toll-free 888-225-5322

*The above information courtesy of the U.S. Coast Guard District 17 newsletter **Lifering**. To receive the informative commercial fishing vessel newsletter **Lifering** contact Commander (moc), Seventeenth Coast Guard District, P.O. Box 25517 Juneau, AK 99802-5517 or email [sjorgensen@cgalaska.uscg.mil](mailto:sjorgensen@cgalaska.uscg.mil)*

## Warning About Defective Hydrostatic Release Issued

The company Song Zhu is making a hydrostatic release for life rafts that is defective, and failing to release a raft when a vessel sinks. Unfortunately, this hydrostatic release unit is very similar in appearance to the popular Swedish-made Hammer® hydrostatic release. Both are yellow and of the same size and design. The Song Zhu device has the model name HR.R. It is manufactured in the People's Republic of China.

---

## **Information for AMSEA Instructors**

# ***Guidelines for Borrowing AMSEA Equipment***

Recently, there has been an increase in training equipment returned to AMSEA late and in poor condition. AMSEA has trained over 220 schoolteachers as well as 535 Marine Safety Instructors since 1985. These educators, in turn, train at least 7,000 people each year with hands-on marine safety courses. To support this training, AMSEA maintains an extensive inventory of equipment. AMSEA now requires two staff members solely to handle training equipment.

AMSEA purchases, maintains and inventories equipment and sends it to instructors for training. Instructors are responsible for using the equipment appropriately, drying it and sending it back to AMSEA. With over 150 immersion suits, hundreds of PFDs and scores of other items, maintaining equipment in a condition useful for training is a labor-intensive job. And, despite a large inventory, there are times when insufficient gear is on hand and we cannot supply instructors with needed equipment.

We are happy to make equipment available for training — it is one of the services we provide. However, we ask that anyone borrowing equipment abide by the following rules.

1. Return training equipment as soon as it is dry so others can use it. There is probably someone waiting to use it for their classes.
2. Please, **DO NOT** delegate the care and return of AMSEA equipment to a third party. We have seen

several instances where instructors did not return gear for months after it was due back. When it finally was returned, it was in deplorable condition with some gear missing. This happened because instructors gave the gear to someone else to dry and return, and it was not promptly and properly cared for. It took staff hours to repair only some of the damage. New equipment will have to be purchased to replace some of this equipment. **YOU**, as an AMSEA instructor, are responsible for the equipment you borrow — from the time you receive it until it is back in our office.

3. Insure that immersion suits and PFDs are rinsed in fresh water and **DRIED** before shipped. It is expensive to ship water, it ruins equipment, and after several days wet neoprene smells like a primordial swamp that no one wants to get into.

4. If equipment will be returned late, please notify us. Sometimes we are expecting to receive your gear so we can turn it around and send it right out to another.

We work very hard to provide important hands-on training gear to instructors. Much of this gear is expensive to purchase and to maintain. Please help your fellow instructors by doing your part. We appreciate all the instructors who make this network work. Let us know your needs but also think about the next instructor who will use the equipment.

---

## **Fishing Vessel Safety Tips Sought for AMSEA Publication**

AMSEA wants to pay you for safety tips! In the next year, AMSEA will produce a booklet of commercial fishing safety practices and tips solicited from those in the industry.

Tips used will earn \$50, plus credit in the publication. Awards will be based on originality and usefulness. Tips may include ideas of what to do in various emergencies (e.g. using stabilizers to steer if your normal steering goes out), emergency prevention (e.g. how to prevent deck injuries), or safety precautions (e.g. use of fuel shut-off temperature sensors on diesel stove fuel lines).

AMSEA is particularly interested in safety ideas specific to a fishery. So give us your ideas! AMSEA will let the rest of the fleet know and send you a check to boot!

---

## HRSA GRANT FUNDS CURRICULUM AND AMSEA TRAINING FOR SCHOOLTEACHERS

*By Marian Allen, AMSEA Schools Coordinator*

The last workshops for schoolteachers in Alaska funded by a Health Resource and Service Administration (HRSA) grant were held this past summer. A small but enthusiastic class met June 18 – 22 in Seward at AVTEC’s Applied Learning Summer Academy. Another class was held back-to-back with a drill instructor class in Sand Point September 16 – 19.

This fall we will promote the *Surviving Outdoor Adventures* curriculum at the Alaska School Board meeting in Anchorage on November 10, and on December 13 at a workshop for injury prevention specialists during their annual meeting in Anchorage.

In a cooperative effort with SEARHC, we are working on a workshop for Kake teachers during this academic year. Plans are progressing for a series of workshops in Maine at the end of the academic year that will complete the workshops funded by HRSA.

And, AMSEA’s all-consuming project – the re-write of the curriculum – is off to Alaska Sea Grant, who will publish it under its new title, *Surviving Outdoor Adventures!* The decision to rename the K – 12 curriculum was made to reduce confusion with our draft, *Outdoor Adventures*. The final curriculum is organized into four volumes. Volume 1 is for kindergarten through second grade. The other three volumes are by topic — *Cold Water Survival*, *Small Boat Safety* and *Survival and Land* — and are for grades three through 12. It promises to be user-friendly and full of great information and activities! We hope to see it on bookshop shelves by late spring, 2002. We also hope to have it available in CD format. All teachers that have been through the workshop will receive the new series in either CD or book form.

---

## *AMSEA Instructors Spread Marine Safety Message*

Dennis Murphy has been busy teaching Basic Safety Training and other courses for professional mariners with Jim Herbert at AVTEC in Seward. Pete Willburn taught cold water survival skills to all the students at Naukati school on Prince of Wales Island. In Sitka, Marian Allen, Julie Butler, Mary Chambers, Bri Crowley, Jason Shepard and Mike Morris have been teaching marine safety to home-schooled children as well as the second through fifth graders in Sitka schools. Teacher Theresa Zabala taught second graders survival tech-



*Above: Terry Wilson provides marine safety training to Nome fishermen, June 2001*

niques in Seward. Other schoolteachers are gearing up for marine safety instruction in the schools later this fall.

Scott Feldman, USCG, and Don Lane, fisherman and AMSEA Board member, were key organizers of the Marine Safety Rodeo in Homer that was part of the community’s annual Seafair. Contestants had to assemble a Coast Guard dewatering pump, don immersion suits, swim, board a life raft, and demonstrate other marine skills in a competitive situation. Congratulations to the winners from the local Coast Guard cutter and to the runner-up team

that included Lane (who under pressure admitted that his team was actually the better!).

## Applicants Sought for AMSEA Rail Belt Position

AMSEA is currently recruiting staff to be based in and to serve the Anchorage/Fairbanks area. We will consider staffing either one full-time position or two part-time positions. The duties of the position(s) include workshop coordination, AMSEA promotion and teaching of commercial fishers, recreational boaters, teachers and children. Certified AMSEA instructors are especially encouraged to apply. Contact AMSEA for required qualifications, job description, and application procedures.



## USCG Award to Benefit Fishers and Children

The U.S. Coast Guard has awarded AMSEA a contract to train commercial Alaskan fishermen and children in marine safety. This funding will allow for a great boost in training efforts over the next year, and for the production of an emergency drills video and a booklet of safety tips (see related article on page 6).

In the next 12 months, AMSEA should have the resources to provide training anywhere in Alaska for commercial fishermen. Any community with at least five fishermen who need the Emergency Drill Instructor course, want a Drill Instructor refresher course, or desire another safety workshop on a specific topic, should contact AMSEA.

Give us a call! We provide the training you need!

## WEBSITES OFFER VARIED INFORMATION

Been on the beach too long but dread getting on a queasiness-inducing boat? For a website devoted solely to curing and preventing seasickness, check out [www.curingseasickness.com](http://www.curingseasickness.com). No ads, just information on *enferme del mar*.

Richard Potts, AMSEA instructor from Iowa, informed us of a website on hypothermia at [www.hypothermia.org](http://www.hypothermia.org). Although it is a commercial site, sponsored by a Canadian company that makes rescue products, it has good information and excellent links.

The F/V *Arctic Rose* sinking this year resulted in the greatest loss of life in the U.S. fishing industry since 1951 when the F/V *Gudrun* sank with the loss of 15 lives off the East Coast in "Perfect Storm" conditions. Although the causes of the *Arctic Rose* loss will not be known until the casualty reports are published, the report of the *Gudrun* can be found on the Coast Guard casualty report site at [www.uscg.mil/hq/g-m/moa/boards/gudrun/pdf](http://www.uscg.mil/hq/g-m/moa/boards/gudrun/pdf).

Of historical note, this report on the *Gudrun* resulted in the first recommendations for fishing

vessel safety regulations. Few were ever implemented.

The United Nations International Labor Organization (ILO) has an excellent website on international fishing vessel safety at [www.ilo.org/public/english/dialogue/sector/techmeet/tmfi99/tmfir.htm](http://www.ilo.org/public/english/dialogue/sector/techmeet/tmfi99/tmfir.htm).

For a copy of the National Transportation Safety Board (NTSB) abstract and recommendations regarding the fire on the Alaska Marine Highway ferry M/V *Columbia* last year, go to [www.nts.gov/publictn/2001/MAR0102.htm](http://www.nts.gov/publictn/2001/MAR0102.htm).

Remember, the Alaska Division of Motor Vehicles has taken over registration of undocumented boats in Alaska. If your vessel is not required to be documented (if it is not a commercial vessel over five net tons), you can register it online at [www.state.ak.us/dmv/reg/boat.htm](http://www.state.ak.us/dmv/reg/boat.htm).

Not to be forgotten, check out AMSEA's website for information on our programs and services, as well as links and teacher activities that are updated quarterly. Find us at [www.amsea.org](http://www.amsea.org).



# THANKS!

The following people and organizations help keep AMSEA's marine safety training programs afloat!

Recent Service & Equipment Donations

F/V Myriad, Sitka — immersion suit and life raft  
Kim Johns, USIA, St. Helens, OR — four dry suits

2001 Sustaining Membership

National Institute for Occupational Safety and Health, Anchorage

2001 Supporting Memberships

Educational Training Company, Sitka  
Dan Russel, Seattle  
Southeast Alaska Regional Health Consortium, Sitka

Petersburg Vessel Owners Association  
U. S. Forest Service, Tonagss National Forest, Sitka  
F/V Coral Lee, Sitka  
F/V St. Lazaria, Sitka  
F/V Gretchen S, Anchorage  
Shilshoe Bay Yacht Club, Seattle  
SEAPRO, Ketchikan  
F/V Eyak, Port Alexander  
La Caccia, Anchorage  
Scott Feldmann, Sterling  
Andre Nault, Pacific Environmental & Safety, San Diego, CA

2001 Donor Memberships

S/V Arcos, Sitka  
F/V Rachel Anne, Ketchikan  
Brian Flory, Juneau  
Bruce Dylesky, New Mexico

**Also thanks to the scores of individual members,  
and the many others who teach and contribute to marine safety education!**

- Individual Membership: \$20.00
- Donor Membership: \$50.00
- Supporting Membership: \$100.00
- Sustaining Membership: \$500.00
- Newsletter subscription to the U.S.\$10.00
- Newsletter subscription outside the U.S.\$20.00

- Method of payment:
- Check or money order, payable in U.S. funds, enclosed (Please make check payable to AMSEA)
  - VISA or  MasterCard

Account number: \_\_\_\_\_  
Expires: \_\_\_\_\_

Please check here if this is a renewal

Name: \_\_\_\_\_  
 Company/Organization/Vessel: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City, State & Zip Code: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 E-mail: \_\_\_\_\_

*Thank you!* for becoming a part of the

## **ALASKA MARINE SAFETY EDUCATION ASSOCIATION**

P.O. Box 2592 Sitka, Alaska 99835 Phone: (907) 747-3287 Fax: (907) 747-3259 E-mail: amsea@alaska.com

# Navigational Charts Available On-Line

NOAA's National Ocean Service (NOS) is distributing digital Electronic Navigational Charts (ENC) of U.S. waters on the Internet as of July 16, 2001. NOS posts its ENCs and associated updates on the World Wide Web with the data accessible to all. NOS's goal is to provide maximum availability of this valuable data, that has primary application in navigation and in Geographic Information System (GIS) activities. For users interested in navigational applications, the data is posted at NOAA's Office of Coast Survey Web Site, [www.chartmaker.ncd.noaa.gov](http://www.chartmaker.ncd.noaa.gov).

Initially digital ENCs are prototype products, and the data will not be supported by regular updates. Therefore, these ENCs should not be used for navigation. Rather, during this initial period, the intent is for users to familiarize themselves with downloading procedures. Simultaneously, NOS will evaluate the products and determine the level of support necessary to maintain the distribution service.

Once NOS develops and implements an update process and any problems identified during the initial phase are resolved, ENCs will be made available for use in navigation. Initially, ENCs will be available for the nation's 40 major ports. However, NOS plans to expand coverage as resources become available.

ENC data posted on the Web will not be encrypted, but may have some type of authentication built in, such as a digital watermark, so that users can verify that data issued by NOS has not been corrupted. NOS does not intend to limit access to or restrict use of ENCs available on the Internet. However, NOS does plan to develop procedures for users who wish to incorporate ENCs in products designed to satisfy chart carriage requirements mandated by the International Safety Of Life At Sea Convention (SOLAS) and the U.S. Code of Federal Regulations. This means that users planning to provide value-added navigation products must establish a certifiable process by which NOS ENC data are incorporated in the products without compromise to the data quality or data lineage.

For further information about NOS ENCs, contact Captain Nicholas E. Perugini, NOAA, Chief, Marine Chart Division, Office of Coast Survey, NOS/NOAA 1315 East-West Highway, Silver Spring, Maryland 20910-3282, 301-713-2724, Extension 101, FAX: 301-713-4516.

*The above information is from the **Federal Register** June 14, 2001 Vol. 66, Number 115*



P.O. Box 2592  
Sitka, Alaska 99835

Non-profit Organization U.S. Postage <b>PAID</b> Permit 23 Juneau, AK 99835
---

*Return Service Requested*