

# Alaska Marine Safety Education Association

*A community-based cold water &  
boating safety training network*

Volume 19, Number 1  
Spring 2003



## ***MARINE SAFETY UPDATE***

### ***Sitka to Host Numerous Safety Events in September***

Almost everyone interested in marine safety and survival will find useful training and information in Sitka, Alaska in September. AMSEA has a full slate of events planned for the month beginning with a Marine Safety Instructor Training (MSIT) Refresher course on September 18, 19 and 20. This three-day class is intended for anyone who has completed an AMSEA MSIT course. Participants will gain updated information on a variety of survival topics, and will have an opportunity to share marine safety training experiences, share effective teaching tips, and try out new equipment.

The Second International Fishing Industry Safety & Health (IFISH II) conference will open on Sunday, September 21 with a catered "ice breaker" reception and fishing-themed art exhibit. IFISH II will continue through Wednesday, September 24 with papers and presentations highlighting programs, coalitions, and interventions with proven success in reducing risk to commercial fishermen.

The conference will also include a trade show featuring

products and services that contribute to safety in the fishing industry, an evening cruise, and plenty of food and camaraderie. AMSEA is cohosting the event with the National Institute for Occupational Safety and Health.

Following IFISH II, AMSEA will offer a one-day Alaska Water Wise Instructor course and a six-day MSIT course. The Alaska Water Wise Instructor course on Friday, September 26 is designed for persons interested in teaching boating safety to recreational or subsistence boaters. The one-day, National Association of Boating Law Administrators-approved class is intended for those with teaching experience or education, or who will attend the MSIT that begins the following day.

The MSIT course that begins Saturday, September 27 and concludes Friday, October 3 is a comprehensive, hands-on course designed for anyone interested in teaching marine safety and survival to commercial fishermen, professional mariners, schoolteachers, children, government agency personnel or others. It includes up-to-date safety and survival information, opportunities to use equipment in and out of the water, a complete F/V Drills Instructor course, an overnight survival exercise, and methods of instruction.

For information or to register for any of these great offerings available in Sitka next September, contact AMSEA or visit [www.amsea.org](http://www.amsea.org).

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## Marine Safety Training & Events On Tap

Join AMSEA staff & instructors at any of the locations & events listed below. Contact AMSEA at 907-747-3287 or [amsea@alaska.com](mailto:amsea@alaska.com) for information about courses or events listed, to register to attend, or to set up training elsewhere.

- Apr. dates TBA, **Craig**: F/V Drill Instructor Course  
 Apr. dates TBA, **Metlakatla**: F/V Drill Instructor Course  
 Apr. dates TBA, **Ketchikan**: F/V Drill Instructor Course  
 Apr. 9 - 10, **Wrangell**: F/V Drill Instructor Course  
 Apr. 14 - 16, **Las Vegas**: Exhibit and presentation on *Surviving Outdoor Adventures (SOA)* curriculum at International Boating & Water Safety Summit  
 April 21 -23, **Nome**: F/V Drill Instructor Course  
 Apr. 22, **Juneau**: Exhibit and presentation on *SOA* curriculum at Home School Curriculum Fair  
 Apr. 24, **Soldotna**: Exhibit and presentation on *SOA* curriculum at Home School Curriculum Fair  
 Apr. 25 - 26, **Anchorage**: Exhibit and presentation on *SOA* curriculum at Home School Curriculum Fair  
 Apr. 28 - May 2, **Yakutat**: Cold water survival workshops for children and adults  
 May 2 - 3, **Yakutat**: F/V Drill Instructor Course  
 May dates TBA, **Valdez**: F/V Drill Instructor Course  
 June 2 - 7, **Seward**: *SOA* curriculum workshop for & F/V Drill Instructor Course for teachers  
 Sept. dates TBA **Kalskag**: Alaska Water Wise Instructor course in conjunction with Teachers' Workshop  
 Sept. 18 - 20, **Sitka**: Marine Safety Instructor Training (MSIT) Refresher for those who have taken an MSIT course and want updates on survival topics and an opportunity to share effective teaching tips.  
 Sept. 22 - 24, **Sitka**: Second International Fishing Industry Safety & Health (IFISH II) conference cohosted by AMSEA and NIOSH.  
 Sept. 26, **Sitka**: Alaska Water Wise Instructor course for those interested in teaching safety to recreational and subsistence boaters.  
 Sept. 27 - Oct. 3, **Sitka**: Marine Safety Instructor Training designed for those interested in teaching marine safety and survival to commercial fishermen, professional mariners, teachers, children, government agency personnel or others.

**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:

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**Marine Safety Update**

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## New Weak Link Systems Introduced by Hammar

The Hammar H20<sup>®</sup> hydrostatic release for life rafts has a new weak link system. In order to ensure easy and correct installation, Hammar has designed the Red Weak Link System (breaking strength 2,2 +/- 0,4 kN), which has several advantages over their older system. It is easier to install correctly, has smaller tolerances in the weak link system and has a stronger lower thimble construction. The Hammar H20<sup>®</sup> hydrostatic release with the new Red Weak Link System is available as of January 2003.

The Hammar standard H20<sup>®</sup> is designed for SOLAS life rafts for six or more persons. To ensure correct function, hydrostatic releases for small life rafts (less than four persons) need to have an EXTRA WEAK link. Hammar has designed a model for small rafts outside SOLAS regulations. It has a special weak link identified by a green lower thimble (breaking strength 1,2 +/- 0,4 kN) and a compact installation length to suit smaller rafts. The new Hammar H20<sup>®</sup> Small Raft Model hydrostatic release is scheduled to be available late Spring 2003.

In addition, Hammar now has a Electronic Remote Release System or ERRS that allows for the remote release of rafts, slides, EPIRBs and other safety equipment. ERRS complements their Manual Remote Release System.

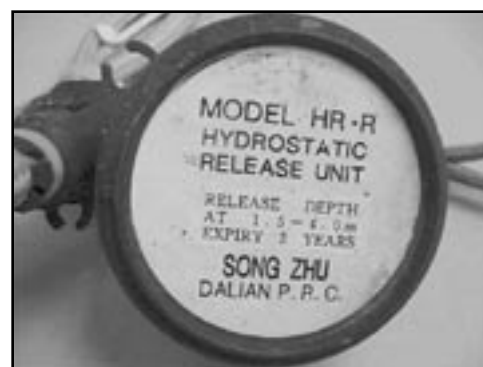
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## *Hydrostatic Release Look-Alikes Fail to Perform*

Recently while in Portland, Oregon the crew of Greek-registered *M/V Talisman* took their life rafts' hydrostatic releases into a supplier because the plastic thimbles had broken and they wanted the units replaced.

The supplier noticed they were not Swedish-made Hammar releases but Hammar look-alikes made in Dalian, China. He was curious about their operation and fired one off. Its knife did not have enough force to cut the rope. He tested a second one to see if the first failure was a fluke. It wasn't.

This was the first time that supplier has seen these Hammar look-alikes. He noted that the units were supposedly less than one year old and their poor condition after such a short period of service is what peaked his curiosity. As illustrated in the accompanying photographs, the blade failed to cut through the painter when fired off. These Chinese-made releases do not indicate any sort of certification. However, anyone taking a cursory look at these units might think they were Hammars. Lesson? Be sure that the hydrostatic releases you buy are approved!



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## Cool Web Sites and Publications Listed

### *Deck Safety for Crab Fishermen*

Jensen Maritime Consultants, Inc., with support from NIOSH, has produced a booklet intended to help prevent common deck injuries in Alaskan crab fisheries. It is the result of a study focused on large-pot crabbers working Alaska waters, although some of the information is useful in other fisheries and regions. Most of the ideas in the booklet come from fishermen themselves. To find an electronic version of *Deck Safety for Crab Fishermen* visit [www.jensenmaritime.com](http://www.jensenmaritime.com) and click on "Articles."

### *Proceedings of IFISH I Conference*

Proceedings of the First International Fishing Industry Safety & Health (IFISH I) conference held in Woods Hole, MA in 2000 are available at [www.cdc.gov/niosh/docs/2003-102/pdfs/2003102.pdf](http://www.cdc.gov/niosh/docs/2003-102/pdfs/2003102.pdf). A link to the publication is also available from the IFISH II website: [www.amsea.org/ifish/](http://www.amsea.org/ifish/)

### *Alaska Boater's Handbook*

The Alaska Office of Boating Safety is pleased to announce that both a print and a PDF version of the 2003 *Alaska Boater's Handbook* are now available. This edition includes new information including a summary of the navigation rules, and homeland security tips. Download a copy of the PDF at [www.alaskaboatingsafety.org](http://www.alaskaboatingsafety.org), or request a print version from the Alaska Office of Boating Safety at 907-269-8705 or [jeffj@dnr.state.ak.us](mailto:jeffj@dnr.state.ak.us)

### *Report on the Fire aboard the Pride of Bath*

U.K.'s Marine Accident Investigation Branch (MAIB) is a great source for casualty reports and lessons learned. Although the focus is on British casualties, the lessons learned have universal implications. The MAIB has just posted the report of a vessel fire on the River Avon in July 2002. It can be viewed at [www.maib.dft.gov.uk/reports/reports-2003.htm](http://www.maib.dft.gov.uk/reports/reports-2003.htm)

### *New Legislation Affects Fishermen*

Senate Bill 482 to reauthorize and amend the Magnuson-Stevens Fishery Conservation and Management Act, and Senate Bill 487 which will amend the Internal Revenue Code of 1986 to provide a business credit against income for the purchase of fishing safety equipment are available at <http://thomas.loc.gov> by using the site's search engine. New bills introduced in the Senate and House can be found at [www.legislative.noaa.gov](http://www.legislative.noaa.gov)



## ***CG Warns of Unapproved Liferaft Servicing Facilities***

The U.S. Coast Guard recently received reports of faulty servicing of inflatable life rafts by facilities operating under the name AMPAK in Baton Rouge, LA, and Panama City, FL. In at least one instance, a liferaft gas cylinder was found empty after servicing, and the raft would not have worked in an emergency. Others were marked as having been subjected to required tests that, in fact, were not performed.

Although it is not known how many liferafts were serviced by AMPAK, it appears that at least several different brands of U.S. Coast Guard-approved rafts as well as some foreign-approved liferafts were serviced, and that the AMPAK facilities were not approved to service *any* of them. Both AMPAK facilities now appear to have ceased operation.

It is recommended that any inflatable liferafts last serviced by AMPAK in Baton Rouge or Panama City be re-serviced at a Coast Guard-approved facility as soon as possible.

This recommendation applies both to U.S.

Coast Guard-approved liferafts on U.S. vessels, and foreign-approved liferafts on SOLAS ships. Any servicing facility that receives a Coast Guard-approved liferaft last serviced by AMPAK should notify the local Coast Guard Officer in Charge, Marine Inspection (OCMI). A Coast Guard inspector may choose to witness the servicing. This notification can be included in the facility's routine required notice to the OCMI of servicing.

Servicing facilities should report any serious problems found in AMPAK-serviced liferafts to Mr. Kurt Heinz of the Lifesaving and Fire Safety Standards Division at (202) 267-1444 or [kheinz@comdt.uscg.mil](mailto:kheinz@comdt.uscg.mil).

Raft owners should make sure that the servicing facilities they use are U.S. Coast Guard-approved! Information and a list of approved liferaft servicing stations is available from the U.S. Marine Safety Association at [www.usmsa.org/db/stations.asp](http://www.usmsa.org/db/stations.asp).

## **Correct Liferaft Installation Is Critical**

Many vessel operators live in communities without liferaft servicing stations. They must send their rafts elsewhere to be serviced once a year, then reinstall them themselves. The U.S. Coast Guard in Dutch Harbor, Alaska notes several mistakes frequently made when operators reinstall rafts. These mistakes can prevent liferafts from deploying as designed. Some common problems:

1. Hydrostatic releases are expired. Vessel operators may assume that hydrostatic releases are always replaced during servicing. However, if the hydrostatic release remains with the cradle onboard the boat when a liferaft is sent elsewhere for servicing, it must be serviced separately. Many owners forget to look at the hydrostatic release expiration date on these rafts.

2. Hydrostatic releases are installed upside-down. When a liferaft is reinstalled after servicing, some boat owners accidentally attached the hydrostatic release upside-down. This could allow the liferaft to float free without inflating.

3. Liferaft painters are incorrectly reinstalled. Never tie a liferaft painter to a frame or place than other the weak link. One liferaft was found actually tied down so that it would not float free if needed.

Extra effort to ensure that a liferaft is reinstalled correctly may pay big safety dividends later!

*Thanks to LT Joe Higgins, USCG MSD, Unalaska, Alaska for pointing out these common errors.*

## Thoughts on Cold Water "Shock" continued from page 10 . . .

(reflex) to the cold. This can eventually lead to a cardiac event and then you can have genuine cardiogenic shock. But not before the person's ticker starts flip-flopping and thereby is unable to supply the brain with oxygen. There are many other types of medical shock (neurogenic, anaphylactic, hypovolemic, insulin, respiratory, septic, etc.) and these are true life threatening situations.

It is understandable that people use the term "shock" when describing falls in cold water. Although not medically correct, the sensation is certainly a jolt. As mentioned, in some cases the profound metabolic changes can increase blood pressure, respiration and cardiac output and result in a cardiac event to those with weak cardio-vascular systems.

One of the biggest immediate dangers in

cold-water immersion is the accidental intake of water while gasping during uncontrolled hyperventilation and the start of the drowning sequence. If you know you have to enter cold water, do so *slowly*, if possible, to control breathing rate. Protect the airway from water as much as possible.

The increase in blood pressure can be caused by anxiety, hydrostatic squeeze (from being in the water) and the effects of cold water itself. To minimize these effects, also immerse yourself slowly, if possible, and keep as high out of the water as you can. Practice with immersion suits in cold water can help you be more comfortable and overcome some anxiety. By all means, keep your face out of cold water to minimize metabolic reactions to the cold that may be triggered by the nerves in the face.

### You Depend On It...

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**Washington State Convention & Trade Center  
Seattle, WA**

**Plan to Visit AMSEA in Seattle at Fish Expo!**

## Automatic Inflation Mechanism Requires Maintenance

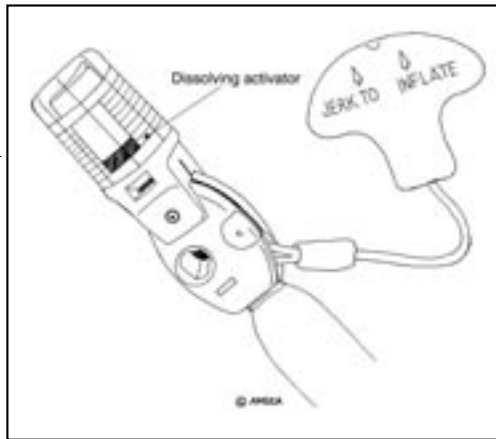
Personal Flotation Devices (PFDs) with automatic inflation mechanisms are increasingly available. These devices are a great addition to a boater's safety gear. The self-inflation mechanism inflates the PFD when the wearer is immersed in water due to a sudden overboard event, without the wearer taking any action. Thus, even if the wearer is unconscious or otherwise unable to manually inflate it, the PFD will provide buoyancy. And, inflatable PFDs generally provide more buoyancy than traditional PFDs.

Because inflatable PFDs only acquire their bulky buoyancy when inflated, they are usually very comfortable to wear; making it more likely they will be worn. This is important because over 90% of people who end up in the water in boating casualties, did not expect to be in the water just moments before they went overboard.

However, inflatable PFDs have maintenance requirements over and above ordinary PFDs with inherent buoyancy.

Inflatable PFDs are usually designed so that water from spray and rain will not inflate the PFD. However, constant exposure to moisture will dissipate the automatic inflation mechanism's catalyst over time. Then, when the PFD is immersed in water, there is not enough catalyst left to inflate the PFD.

Owners of PFDs with automatic inflation mechanisms should examine the mechanisms every few months by unscrewing the spring-loaded mechanism just under the CO<sub>2</sub> cylinder. Inside the mechanism there is a small white dissolving activator, that looks similar to a candy Lifesaver® or a disk with a hole in the middle. If the surface of this disk is smooth with no bumps or holes, it is probably fine. However if the disk



looks pitted (like a Lifesaver® that has been in someone's mouth for awhile), then IT MUST BE REPLACED. No matter what the condition of the activator, it is good practice to change out the activator disk once a year on PFDs that are stored or regularly worn on board a vessel.

## EPIRB Antennae Corrosion Strikes in Alaska

Several ACR model 2754 EPIRBs have been discovered in Alaska with corrosion at the base of the antennae. (The problem was previously reported in Hawaii.)

It seems corrosion occurs rapidly once the waterproof housing fails. Moreover, carrying an EPIRB by the antennae is a good way to break the watertight seal at antennae base. It was not designed as a handle.

Operators should check the overall condition of EPIRBs, regardless of type, during monthly tests and prior to embarking on every trip. This is the surest way to note problems and insure this piece of safety equipment works properly when needed.

*Thanks to LT Joe Higgins, Supervisor, USCG MSD Unalaska, Alaska for passing this alert along.*



## Spring Is Good Time to Inventory PFDs

Spring is an excellent time to check personal flotation devices (PFDs) and immersion suits.

**Size:** Since the last time you used your boat, members of your family or crew may have grown! Adults grow horizontally with age, and children vertically. Children especially grow fast, and last year's PFD is often too small. Before going out in the boat, try PFDs on and see if they still fit. Better yet, take them to a pool, try them on *and* see how they float.

**Condition:** Check for tears, stains, missing buckles, damaged straps and mold. Check immersion suits for leaks, make sure the inflating bladder works, and wax the zipper on the inside as well as the outside using a non-petroleum based lubricant of a type recommended by the manufacturer. Silicon waxes work well, as they are soft and permeate the zipper teeth. Baileys® recommends a non-petroleum lithium-based grease, which is a bit messy, but also gets into the teeth well. Beeswax is sometimes used, but it hardens at cold temperatures. If an immersion suits has acquired a build up of zipper lubricant, it is a good idea to remove this and start with new wax.

**Accessories:** Check reflective tape, lights, batteries and whistles. This is also a good time to review and renew the contents of your personal survival kit that is stored with your PFD or immersion suit.

Take a critical look at your personal flotation. Is it up to task?

## Personal Locator Beacon Program Slated to Begin

The FCC plans July 1, 2003 as the day that the personal-sized 406 Personal Locator Beacon (PLB) program starts. This date is a delay of six months that was granted to give each of the states adequate time to form a rescue coordination center such as the Coast Guard has for marine rescues.

They are still tweaking some of the specifications, but most manufacturers plan to be ready to go with their products on July 1. PLBs are designed for land use, and are not tested for use in the marine environment. However, pocket-sized marine Category III EPIRBs are also being introduced into the market about July 1.

## HOMELAND SECURITY AFFECTS AMSEA

Instructors teaching AMSEA USCG-approved classes now must provide to AMSEA a copy of photo identification for each student along with course rosters.

CO<sub>2</sub> cartridges cannot be shipped by air. Airline passengers are allowed to hand-carry or check with baggage two CO<sub>2</sub> cartridges per passenger, one in a jacket and one spare. However, TSA agents at airports have the discretion to take these items if they choose.

See [tsatraveltips.com](http://tsatraveltips.com) for information about new airline security. However, be aware that individual air carriers can choose to be more restrictive than TSA regulations.

## Government May Degrade GPS Signal Accuracy

The U.S. military may be degrading the GPS signal during war. Accuracy may decrease from approximately 3 meters to 100 meters or more. Mariners should never rely on a single source for navigation information. This is especially true now with so much dependence on GPS. One hundred yards may not be significant in the ocean, but in narrow channels it could be a concern.



**THANKS!** The following people and organizations have *already* submitted AMSEA 2003 memberships!

2003 Sustaining Membership  
Trident Seafoods Corp., Seattle, WA

2003 Supporting Memberships  
S.E. Alaska Regional Health Consortium, Sitka, AK  
Aaron "Pat" Dye, Cooper Landing, AK  
Noel & Onna Johnson, S/V Sequoia, Sitka, AK  
Steve Fish, F/V Kariel, Sitka, AK  
Michael Morris, Sitka, AK  
Petersburg Vessel Owners Assoc., Petersburg, AK  
David & Maggie Herbert, Seward, AK  
Mike Mayo, F/V Coral Lee, Sitka, AK  
Andre Nault, Pacific Environmental & Safety,  
Hermosa Beach, CA  
Jim Edson, F/V Kupreanof, Sitka, AK  
Paul Helland, Vessel Safety Corp., Kingston, RI

2003 Donor Memberships  
Nick Olmstead & Molly Kemp, Tenakee Springs, AK  
Neil Huff, F/V Rocky B. Sitka, AK  
Don Weber, Safety & Survival Solutions, Inc.,  
Anchorage, AK  
Daniel Hull, F/V Gretchen S, Anchorage, AK  
Alan & Elizabeth Horoschak, Sitka, AK  
Felicia McCauley, F/V Amber J, Juneau, AK  
Susan Sugai, Fairbanks, AK

It's time to renew **your** AMSEA membership or join as a new member for 2003! Please use the form below. AMSEA memberships help keep AMSEA programs going and demonstrate to others that we have support from the public and indus-

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

**JOIN AMSEA!**

- Individual Membership: \$20.00
- Donor Membership: \$50.00
- Supporting Membership: \$100.00
- Sustaining Membership: \$500.00

- Check or money order, payable in U.S. funds, enclosed(Please make check payable to AMSEA)
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**Thank you!** for becoming a part of the

**ALASKA MARINE SAFETY EDUCATION ASSOCIATION**

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# Thoughts on Cold Water "Shock" Expressed

by Jerry Dzugan, AMSEA Director

I have this prejudice against use of the term "cold water shock." I am surprised (Yes, even shocked!) when I hear people use this term since "cold water shock" is not a form of shock in a medical sense. Yet people, even professionals, use this term when describing the physiological reaction to cold water. So let's start with the medical definition of shock. Simply stated, shock is a lack of oxygen to the brain, which typically results in death in four to six minutes. This is NOT usually what happens when a person first hits cold water.

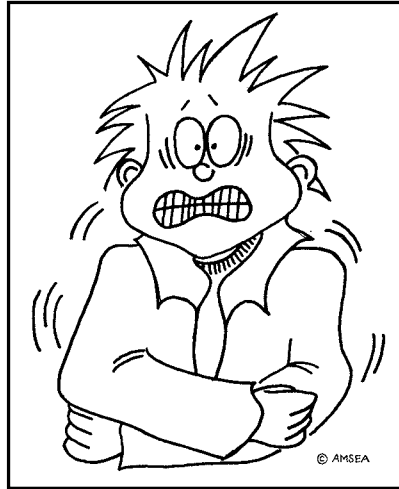
The immediate effects of immersion in cold water do NOT immediately

result in lack of oxygen to the brain. In fact just of opposite is true due to resultant increase in blood pressure and hyperventilation. Physiological reaction to cold water would be better called "cold reflex" or "cold crisis" or "cold reaction" but I guess those do not sound as well, . . . shocking.

There is a difference in signs, symptoms and treatment when confronted with shock or what I will term cold reflex. This is especially important since the treatment for true medical shock is not always appropriate when dealing with someone who falls in cold water. People falling in

cold water have a profound metabolic reaction

*continued on page 6 . . .*



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