

The Submarine Division of the Naval Safety Center Presents:



FLASH

Factual Lines About Submarine Hazards

June 2001 – July 2001

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Naval Safety Center

375 A Street
Norfolk, Virginia 23511-4399

submarines@safetycenter.navy.mil

www.safetycenter.navy.mil

FLASH Editor: ETC(SS) Craig Houck Ext. 7098
E-Mail: chouck@safetycenter.navy.mil

Afloat Directorate Head: CDR Tom Warner Ext. 7127
E-Mail: twarner@safetycenter.navy.mil

Commander Naval Safety Center
RADM David Architzel Ext. 7000

THE SURVEYORS

Safety Officer/General Departmental

LCDR David Bragg Ext. 7100
dbragg@safetycenter.navy.mil

LCDR Parker Swan Ext. 7201
pswan@safetycenter.navy.mil

DC/Mechanical/Electrical/Electronic

MMCM(SS) John Mosholder Ext. 7099
jmosholder@safetycenter.navy.mil

EMC(SS/SW) Greg Seplak Ext. 7073
gseplak@safetycenter.navy.mil

ETC(SS) Craig Houck Ext. 7098
chouck@safetycenter.navy.mil

MMC(SS) Ron Downham Ext. 7073
rdownham@safetycenter.navy.mil

Medical

HMCS(SS) Brett Darnell Ext. 7094
bdarnell@safetycenter.navy.mil

Combat Systems/Deck/Divers

MMC(SS) Mark Gallenstein Ext. 7091
mgallenstein@safetycenter.navy.mil

STCM(SS) Bob Krzywdzinski Ext. 7097
bkrzywdzinski@safetycenter.navy.mil

FTC(SS) Jay Bramble Ext. 7202
jbramble@safetycenter.navy.mil

Phone: (757) 444-3520 (DSN 564)

Fax: (757) 444-8636 (DSN 564)

WARNINGS, CAUTIONS AND NOTES

The FLASH is a newsletter that provides safety-related information to the fleet. This information is a summary of research from selected mishaps and surveys done throughout the force. This data is provided to assist you in YOUR mishap prevention program and gives advanced notice of other safety-related information.

This newsletter is NOT authoritative but will cite references when available.

Editor's Thought

ETC(SS) Houck

First, I would like to thank the several submarine commanding officers who took the time to write us following their safety surveys. It's always nice to know that someone appreciates our efforts. Thank you!

NEWS FLASH! The Naval Safety Center is one of the last **free** looks the Navy has to offer! We conduct safety surveys (not inspections), we don't report the specific results of our surveys to anyone (e.g., squadrons and tycoms), and we write various publications (including the submarine newsletter Flash). We take up very little of your time (in the grand scheme of things), are very flexible (we've even worked around a stores load on a Trident!), and who knows, we may even save the life of one of your OBA wearers (during a real casualty). You don't have to take my word for it, check with your counterparts on other boats. The majority of items on our survey checklists are looked at by other organizations that are not in the free-look business (e.g., Insurv and ORSE). **We work for the government and truly are here to help!**

You should contact us and schedule a safety survey several months in advance of inspections or deployments. Many of our loyal subscribers are aware of the above. However, while we were trying to arrange for a safety survey on his boat, one executive officer was "suspicious" and said he had never heard of a safety survey! In some cases I guess the saying, "*You can lead a horse to water but you can't make him drink,*" still applies.



DO YOU USE THIS AS A FLOATATION DEVICE?

STSCM(SS) R. KRZYWDZINSKI



IF SO, THEN READ THIS.

Commander, Naval Sea Systems Command has neither tested nor approved as a floatation device, the black, "tactical vest" issued under force protection (FP) allowance equipage lists (AEL) 2-320024501, 2-320024502, and 2-

320024503. This vest was procured for FP tactical purposes only. Although the tag in the vest may say "Tactical Floatation Vest," depending on the weight of the wearer and how the vest is loaded, we suspect it will not provide

sufficient buoyancy if used as the sole positive buoyancy device.

Commander, Naval Sea Systems Command message 160445Z JUL 01 reaffirms the ALSAFE message 221850Z JUN 01 and states that units are to cease using the tactical vest as

a floatation device. If floatation is required, wear an approved floatation device listed in NSTM 077, not the tactical vest. Points of Contact: Mark Campbell NAVSEA 05L4 (202) 781-3619 and A. Woodward NAVSEA 04L41 (202) 781-1854 (DSN prefix 326)

A Few Thoughts

MMC(SS) Gallenstein

Every once in a while, it's a good idea to just sit back and look at how we do business. While conducting surveys around the fleet, I talk with a lot of weaponers out there. While I haven't read of any weapons-related mishaps in the submarine force recently, I do hear about things that go wrong. This doesn't include all the little "oops" everyone talks about. Let's talk about a few of these.

- I have heard about several boats having their deck skids powder coated. When it comes back from the shop the pieces look great, but they may not go together due to the tight clearances involved. Waiting until the night before the weapons load is **not** the time to find out the skid won't go together. It's happened more than once!
- While on the boats, I frequently see the wire lifting assemblies spread out on the deck, people walking on them, or even more common, find the wire rope assemblies twisted up in the center stows. The wire rope is the weak link in the system. A kink in the wire, a few broken strands of wire, a crushed fitting, and the entire assembly is shot.
- Prior-to-use inspections and prior-to-use PMS are two items that can bite you when you least expect it. This is especially true if you rush through them, or don't perform them at all. Starting the PMS early gives you time to conduct a good inventory, inspect

your equipment, and possibly find a problem. This way when those little "oops" creep up, or things don't work quite right, there is time to correct them or adjust your plan.

- One boat was having difficulty slipping the intermediate rails into place. Their answer to the problem? Get a big sledgehammer to drive it in. On some ships that may be the answer (been there, done that), but if you need to use a hammer, ensure there's a block of wood between the hammer and the rail end to protect the rail surface from damage.
- On several surveys, I have noticed open bolt holes topside, with no thread savers installed. It doesn't matter if you're called a TM or MM, we are mechanics and should follow good mechanical practices. Use the thread savers, keep the holes clean, and check the threads on the topside skid bolts. When you remove the deck skid, take the time to do a little maintenance, and get those thread savers back in place. I have a copy of **COMSUBPAC Technical Note 08-01** (Weapons handling topside bolt holes, R171544Z May 01) if you need it.

What does this all have to do with safety? Well, unfortunately I still hear, "*Don't do it like that! The Safety Center is here today.*" Don't do it just because I'm onboard, do it because it's the right thing to do! Enough rambling for now, be safe and have a great day out there.

How Reliable Are Your Vari-Nozzles?

MMCM(SS) Mosholder

The answer might just surprise you. In this last year, I have found an alarming number of fire hose stations out of commission due to the vari-nozzles being stuck in a low-or no-flow position. The early design 95 and 125 GPM nozzles manufactured by Elkhart Brass are susceptible to this condition due to surface corrosion of the internal parts.

The earlier designed nozzles can be identified by looking through the open valve from the coupling end. ***If a three-legged brass part (stem base (web)) is visible, this is a potentially defective nozzle.***

The nozzle poppet/stem assembly in the center of the discharge end screws into this

part. The entire assembly should move freely in and out with approximately one-quarter inch of travel. It is this brass stem base that corrodes to the nozzle body, potentially locking the poppet/stem assembly in a low-or no-flow position. Whether the poppet/stem assembly moves or not (because it may be stuck due to corrosion), you must remove the nozzle from the hose and examine it to determine if it is potentially defective.

Later model vari-nozzles incorporate a rigid, cast-in-place two-legged-stem base and are not susceptible to this failure.



Three Legged (Potentially Defective)

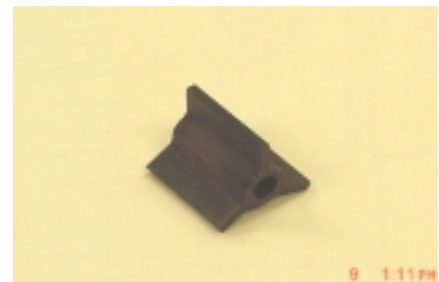


Later Version (No Action Required)

If the nozzle is potentially defective, you can repair it by replacing the brass stem base with a stem base made of injection molded Ryton. You can obtain replacement stem bases and repair instructions from:

Elkhart Brass Mfg Co.
P.O. Box 1127
Elkhart IN 46515
Fax (219) 293-9914

Provide a shipping/mailling address and specify "Stem Base (Web)" part number 63420000. If further assistance is needed, contact Debbie Welsch at Elkhart Brass (219) 295-8330 Ext. 240. A fee of \$2.25 will be charged for each stem base.



Replacement Stem Base

SUBMARINE QUARTERLY MISHAP SUMMARY FOR 2ND QTR FY01

LCDR Swan

The following are reported mishap statistics involving submarine commands for the second quarter FY01:

Submarine (On Duty)	# Mishaps (Class)				Lost Workdays (Class)	
	A	B	C	Special	B	C
	1	1	8	10	0	114
Off-Duty and Motor Vehicle	# Mishaps (Class)				Lost Workdays (Class)	
	A	B	C		B	C
	1	0	15		0	365

Examples include:

Class A Mishap: DEATH (On-Duty). Nine Japanese citizens died due to a submarine collision with their training vessel. DEATH (Off-Duty). A LT died due to a snowboarding mishap.

Class B Mishaps: (\$200,000 to less than \$1,000,000): (Grounding/sinking): During heavy seas and high winds, a LCM 8 grounded and sank, two LCM 6s were damaged beyond repair, and five shore power cables damaged.

Class C Mishaps (On Duty):

1. While executing battlestations missile, MT1 turned the corner around a switchboard in MCC and tripped over a foldout stool. This resulted in broken right arm.
2. While in port, EMC was removing a module from CAMS. His hand became wedged between module and cabinet. Result was a broken finger.
3. While performing maintenance, MM1 stepped on a piece of temporary plywood decking that was not secured to the framing on which it lay. The plywood flipped up under MM1's weight resulting in MM1 falling through the deck framing and breaking a finger.

Class C Mishaps (Off Duty):

Eight occurred during recreation activities (basketball, hunting, rollerblading, sledding, skydiving, and snowboarding). There was also one

altercation, one walking on snow covered crane tracks, and one burn mishap. Four motor vehicle mishaps were reported for the quarter.

Special Case Mishaps:

There were five electrical shocks, one chemical exposure (MEA in the eye), one collisions, one class "C" fire, one seawater leak, and one grounding/sinking.

Editors note:

1. OPNAVINST 5100.19D, dated 05 OCT 00 with ACN 1/1 dtg 041820Z MAY 01, is the only document to use for reporting afloat mishaps. Several commands continue to use 5100.19C. If you are reporting mishaps using anything other than 5100.19D, Chapter A6, you are doing so in error.
2. Compared to the 1st quarter, the number of mishaps raised from 34 to 36. However, the number of missed workdays fell by 29%.
3. Why should you report mishaps?
 - a. Reported mishaps are used for statistical data. This data provides the clout needed to ensure funding from congress for the changes needed to have a safer submarine force. (The information is not used against the reporting command.)
 - b. To allow the Naval Safety Center to identify trends in the fleet that may prove hazardous.
 - c. To develop "Lessons Learned" to help prevent mishaps.

688 EPCP Meter Calibration (Test Blocks)

ETC(SS) Houck

Does your electric plant control panel (EPCP) have test blocks installed for easier access during meter calibration? Have you ever wondered why the calibration facility you work with will not allow you to hook up to the test blocks? If you answered yes to these questions, then I have some good and bad news for you.

The bad news is there currently is no instrument calibration procedure for 688-class submarines to use test blocks installed in their EPCPs. This doesn't prevent you 688 electricians from calibrating your EPCP meters, it just means that you can not hook up to the test blocks for your meter calibration. This problem does not effect Trident-class submarines as they have an

instrument calibration procedure (NAVAIR 17-20AX-176L) for the test blocks in their EPCPs.

Now for the good news, we are in communication with several people (including COMSUBLANT 3M and COMNAVSEASYSKOM) concerning this issue and it is no longer on the back burner. As long as we can get everyone on the same page, this issue should be resolved in a timely manner. If your 688-class submarine has EPCP test blocks installed for meter calibration, please contact me at (757) 444-3520 Ext. 7098 (DSN prefix 564) or chouck@safetycenter.navy.mil so I can have a current list all 688s that this affects.



The Chickenhead Award



The Chickenhead Award is dedicated to those unexplained and sometimes even bizarre items we have seen during our travels. If you would like to submit photos for Chickenhead Award consideration, contact Chief Houck at (757) 444-3520 Ext. 7098 (DSN 564), or e-mail at chouck@safetycenter.navy.mil. We will not publish who or where the photo was taken (the intent isn't to embarrass anyone.) The whole idea of this is to help keep submarines aware of potential hazards and to clean up our own mess before someone else does.



Unapproved Speaker Alteration

The winner of our first Chickenhead Award comes to us directly from the engineering spaces of one of our very own submarines. The arrow points to a speaker box that has been modified and "hooked up" (with the original high noise area speaker) to provide extra volume. Hmm, do you think if you did this to your stereo at home that it would work?

Don't Think So Tim!

Temp Alts and UPS and Power Strips, Oh My!

ETC(SS) Houck

I can not count how many times I have witnessed temporary alterations (temp alts) being installed on submarines over the years. Until I worked at the safety center, I never paid too much attention to how the temp alts were installed. This probably is due to my assumption that if it has been approved, it must be okay. Rule number one: Remember what the word “ass-u-me” means!

During a survey, I found a temp alt in sonar (for AFTAS-AEP) that was installed using both uninterruptible power supplies (UPS) and multi-outlet power strips. The UPSs were

“approved for shipboard use” but the multi-outlet power strips were not. We have sent a Safety Issue Paper (SIP) to Commander, Naval Sea Systems Command to resolve the problem. Supervisors, you need to be aware of commercial equipment installed in your spaces. There is a reason equipment is marked as “UL marine” or “approved for shipboard use.” If it doesn't look right, ask the “stupid” question. If you're not sure, feel free to call us. Remember, you're the first and ultimately the last line of defense for your boat!

Have You Checked Your PMS Lately?

Our submarine safety survey checklists contain many items that are directly related to PMS. We routinely spot check these PMS-related items for completion and accuracy. Recently, we have found that many items were not completed in accordance with the PMS card

- Only 1 of 13 boats surveyed would have passed the old PMS inspection requirement of 90% for spot checks (Accomplishment Factor (ACF)).



What's The Status of Your PMS?



Welcome Aboard

Welcome aboard to LCDR David Bragg and MMC(SS) Ron Downham. LCDR Bragg reported as the submarine section division head. His previous duty stations include: USS DRUM (677); CNO N87; USS ALBANY (SSN 753); Supreme Allied Command Atlantic. You can reach LCDR Bragg at (757) 444-3520 Ext. 7100 (DSN prefix 564), or e-mail him at dbragg@safetycenter.navy.mil. Chief Downham reported to the submarine safety programs section as one of our safety analysts.

His previous duty stations include: USS Benjamin Franklin (SSBN 640); USS Hawkbill (SSN 666); NAVSUBTRACENPAC; USS Chicago (SSN 721); USS McKee (AS 41); USS Puffer (SSN 652); Naval Recruiting District Nashville; USS Cheyenne (SSN 773); USS Sante Fe (SSN 763). You can reach Chief Downham at (757) 444-3520 Ext. 7073 (DSN prefix 564), or e-mail him at rdownham@safetycenter.navy.mil.

Effective COMNAVSAFECEN Afloat Safety Advisories

Year 2001

13-00	201909Z OCT 00	GPS and Charts
17-00	201959Z DEC 00	Contract Liberty Boat (Water Taxi) Safety
1-01	041730Z JAN 01	Effective Afloat Safety Advisories
3-01	191215Z JAN 01	Follow-up on NAVSAFECEN Afloat Advisory 8-00
4-01	241845Z JAN 01	Summary of Changes and Implementation of OPNAVINST 5100.19
6-01	031210Z MAY 01	Cancellation of Safety Advisory 11-00
7-01	101845Z JUL 01	COMNAVSAFECEN Security Clearance Information