

# The Submarine Division of the Naval Safety Center Presents:

# FLASH

## Factual Lines About Submarine Hazards

December 2001 – January 2002

### Table of Contents

Page	Article Name
1	Table of Contents Editor's Thought
2	Pyro-Ammo Locker Flood System
3	Why Does My Back Hurt? Innerspring Mattress Covers (Interim Solution)
4	Submarine Hazardous Material Inventory and Management System (SHIMS)
5	Ready, Set, Grease? (Incorrect Pneumatic Grease Guns) Non-Diving Supervisor 2002 Course Dates
6	Chlorate Candle Flood System Welcome Aboard
7	The Chickenhead Award In The News Again? (Tactical Vest Update)
8	Effective COMNAVSAFECEN Afloat Safety Advisories Points of Contact



### Editor's Thought

I have a few questions for all the chief petty officers and above in the fleet. Do you allow your Sailors to use extension cords, power strips, or any other electrical modification in berthing? If you are on a 688, can you have a locker manufactured and put it anywhere you want? Most of you probably answered "No!" to both questions. Why did you answer that way? Does your answer have anything to do with the standards or written guidance that are already in-place? Do you expect your Sailors to follow all the standards and written guidance (e.g., JFMM, NSTMs, CO's Standing Orders, RPMs) or can you pick what standards and written guidance you choose for them to follow as a matter of convenience? With the questions above in mind, is the extra locker you had made or the bilge lighting you have installed in the engine room IAW any standard/written guidance? (Or is it simply a matter of convenience because someone said it is a good idea or it looks good?)

So, "What's the problem with an extra locker or a little bilge lighting?" you ask. How about supervisors setting the example of not following specific standards or written guidance? Whether you want to admit it or not, your Sailors will follow the example you set in one way or another. It's hard to discipline Sailors for doing the same things their bosses do. Just a thought.



# Pyro-Ammo Locker Flood System

## MMC(SS) Gallenstein

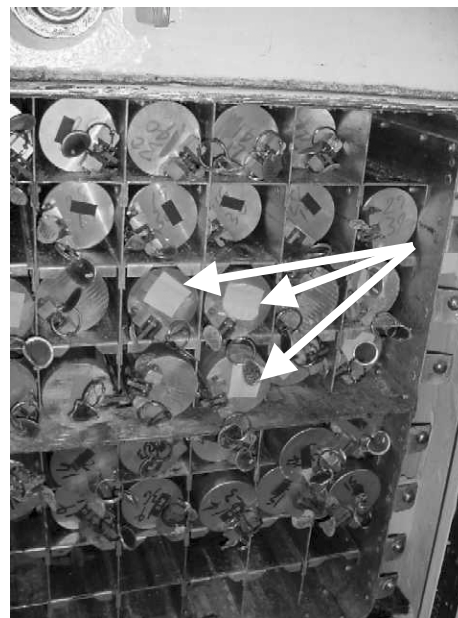
Once again I've found evidence of leaking pyrotechnic and ammunition (pyro/ammo) locker flood valves during our safety surveys. One boat's pyro/ammo lockers were dry, but there were water and salt deposits at the leak-off line. Another boat had standing water in the pyro locker (second submarine with water in the pyro locker I've seen in the last year!) as well as salt deposits in the locker and on the devices themselves. There was also corrosion on the yellow and red cotter pins that keep the devices safe (see picture below).



One boat mentioned that they had a "moisture problem." Let's think about that statement for a minute. A sealed locker (that is suppose to be dry) having a moisture problem? Where did the moisture come from? The lockers are not attached to the hull where condensation could be a problem. The only explanation is a leaking valve.

So, how can you tell if the flood valve is leaking by? The maintenance requirement card "D-1" of MIP 7000/X04, requires you to check the leak-off valve for leakage (as well as checking for evidence of corrosion and salt deposits). On both of the boats where I found water in the pyro locker, the leak-off valves were shut. These valves must be open/cracked-open, then checked for seawater at the drain

funnel. If the leak-off valve is shut, and the flood valve is leaking, that water will end up in the pyrotechnic or ammo locker.



The picture above shows several pyro locker deficiencies. The salt deposits and corrosion don't show up well but they're there. Notice how many devices do not have the required color-coded tape? The arrows are pointing to post-it notes (yes that's right, yellow stickies!) used instead of color-coded tape. Do you see any restraining bars? (I didn't!) Performing the D-1 PMS correctly while conducting the daily inventory/inspection will correct all of these deficiencies.

Last but not least, I still find thermometers out of calibration, or that have not been to the calibration shop at all. The thermometers requirement is every 36 months. If new thermometers are required for the pyro/ammo locker, the stock numbers are as follows (4 inch thermometers): 6685-00-042-3218 (-40 to 180 degrees); 6685-00-404-3715 20 to 240 degrees).

# ***Why Does My Back Hurt?***

***HMCS(SS) Darnell***

Back pain is the fifth most common reason for visiting the doctor. It is second only to the common cold when it comes to the leading causes of lost workdays in the U.S. Submariners are definitely not immune to back pain. But, what causes back pain? How can it be prevented?

Recently, a PO2 injured his back while going through a watertight door. The mishap report stated that he had also injured his back six months earlier while carrying a battery (about 40 pounds) through a watertight door. In their quest to find out why their hard working PO2 hurt his back, the command asked that we research and report on any link between obesity and back injuries.

Just getting older is a major risk factor for back problems. However, a sedentary lifestyle may be one of the biggest (and most widespread) risks of all. Lack of physical activity causes the muscles that support the spine to become weak and less effective. It (the sedentary lifestyle) also tends to cause the individual to gain excess body weight. The weakened muscles' failure to properly support the spine causes the body to try to compensate for the lack of support. Weak stomach muscles increase the strain on the back and can cause an abnormal tilt of the pelvis. Obesity associated with a sedentary lifestyle puts more weight on

the spine and increases the pressure on the vertebrae and discs.

So, did obesity cause the PO2's low back pain? (Probably not.) The injury was more than likely caused by bending or twisting the body in an awkward position. It may be an aggravation of the previous back injury, which was caused by improper lifting or carrying techniques. Obesity did not cause the injury, but it did provide some of the essential elements for the injury to occur.

To avoid back injuries, it is important to get regular exercise, maintain correct posture, increase flexibility by stretching, eliminate the use of tobacco products, and eat healthy foods. But, even if you do all of that, you still may experience a back injury at some time in your life. There are many other factors that can cause a back injury than those discussed here. Many of them are not well understood. But, if you take the time and invest the effort into maintaining a healthy body, you'll find that even if you do hurt your back, your recovery will be much quicker than if you don't take care of yourself. It's your decision.

If you've already hurt your back, follow your doctor's treatment plan. Be sure that you allow yourself enough time to fully heal (6 to 8 weeks) from the injury before you get back to "business as usual."

## ***Innerspring Mattress Covers (Interim Solution)***

***ETC(SS) Houck***

COMNAVSEASYS COM Washington DC 050558Z DEC 01 (NOTAL) and readdressed as COMNAVSAFECEN Norfolk Va 072040Z DEC 01 advise about the availability of flame-resistant mattress covers for the innerspring mattresses distributed throughout the fleet. The covers are considered to be an interim solution pending

the development, testing, and production of a new mattress for shipboard use. The messages list the stock numbers associated with the mattress covers as well as further guidance and points of contact. Submarines should obtain and review the messages, and then take appropriate action.

# Submarine Hazardous Material Inventory & Management System (SHIMS)

LCDR Bragg

COMSUBLANT and COMSUBPAC requested a standardized HMC&M tool be developed to help submarines meet the CNO/NAVSEA/TYCOM requirements. The submarine hazardous material inventory and management system (SHIMS) is the software tool designed by NAVSEA to fulfill those requirements. SHIMS is a Windows®-based application (meets IT-21 requirements) with standard look-and-feel familiar to most users. The database application provides five primary functions: submarine material control list (SMCL), inventory management, HM offload documentation, reports/forms, and references (see Figure 1).

- 1) **SMCL** - Allows screening of HM against the SMCL prior to procurement, and generates SMCL feedback reports (SFRs), if required.
- 2) **Inventory Management** - Tracks the types, quantities and stowage locations of HM on board submarines.
- 3) **HM Off-Load Documentation** - Assists user in completing DD Form 1348-1, DoD single line item release/receipt document.
- 4) **Reports/Forms** - Generates a variety of standard inventory reports, forms, and checklists.
- 5) **References** - Provides a ready online source of relevant HM guidance.

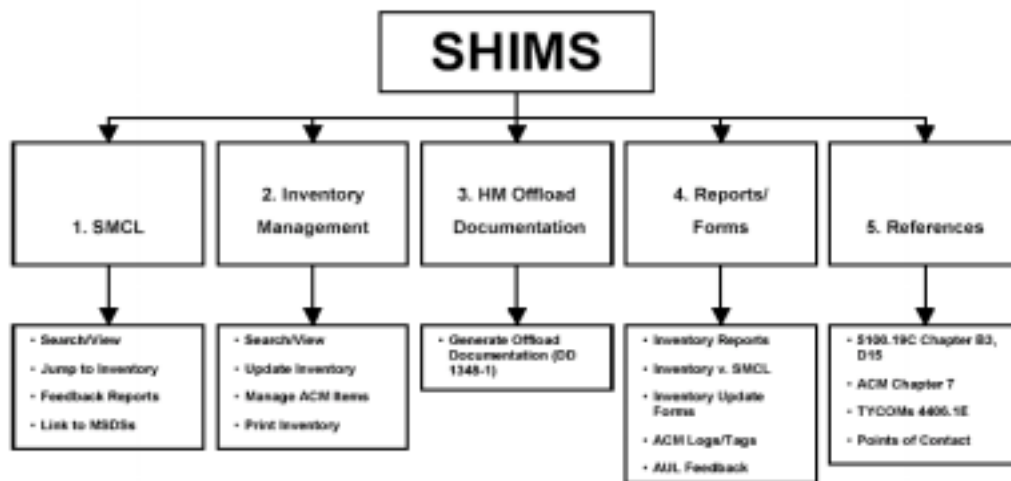


Figure 1: Submarine Hazardous Material Inventory & Management System Overview

You can load the program on the LAN to allow all access to authorized users. Each squadron should have designated personnel trained on SHIMS who will act as the SHIMS regional coordinators. They will be able to assist you in troubleshooting and training you on the programs use. Points of contact are:

- Bangor:** SKC Stanley Larive, Stanley.larive@imfb.navy.mil, (360) 396-6761
- Pearl Harbor:** LCDR Marshall Hephner, HephneMW@csp.navy.mil, (808) 473-5534  
SKC Sigrist, SigristLJ@csp.navy.mil, (808) 473-5548
- San Diego:** SKC(SS) David Schmidt, schmidt.david@css11.navy.mil, (619) 553-8729
- Kings Bay:** LT Rob Ezelle, ezellerl@csg10.navy.mil, (912) 673-2742  
SKCW(SS) David Johnson, supply@camcomp.com, (912) 673-2816
- New London:** SKCS(SS) A.L. Hayden, haydena@csg2.navy.mil, (860) 694-5522  
SKC Nic Parham, Nparham@sssunlon.navy.mil, (860) 694-4076
- Norfolk:** SKCS(SS) Gary Benfield, benfieldg@subhqnorva.navy.mil, (757) 485-6945  
LCDR Ted Carrell, CarrellTF@hq.sublant.navy.mil, (757) 836-1430

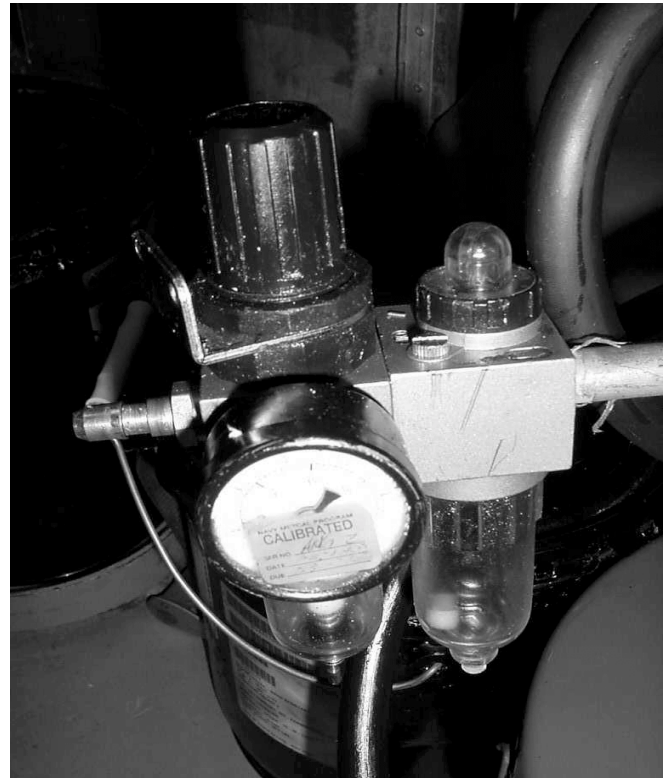
# Ready, Set, Grease? (Incorrect Pneumatic Grease Guns)

MMC(SS) Downham

Naval Inventory Control Point (NAVICP) 021340Z NOV 01 (NOTAL) advises of an incorrect style of pneumatic grease gun inlet regulator (NSN 9C-4820-01-250-8597) in the supply system. I've seen several boats in the Atlantic and Pacific fleets that have the incorrect regulators installed. These particular regulators come equipped from the supply system with flow meter style gages and an oil separator. Although the NSN for the correct and incorrect regulators are the same, the incorrect regulators are not in accordance with the submarine greasing manual (NAVSEA T6350-AA-HBK-010) and should be removed as soon as possible. The incorrect regulator can cause the operator to over-pressurize the inlet of the pneumatic grease gun and subsequently over-pressurize the discharge side, possibly damaging the grease distribution lines. The pneumatic grease gun is used in the steering and diving system, torpedo tube systems and general ships lubrication.

Any command having or receiving the incorrect regulators should submit a quality deficiency report (QDR) through their supply system and order a new regulator.

To obtain a copy of the NAVICP message or if you have any questions regarding this issue



(Incorrect Regulator)

contact: Brenda Brown (DSCC -MEAB) at (614) 692-1216 (DSN 850) or e-mail [brenda.brown@dsc.dla.mil](mailto:brenda.brown@dsc.dla.mil). Other POCs: MMC(SS) Francazio (SUBLANT auxiliaryman) (757) 836-1258 (DSN 564); MMC(SS) Dela Pena (SUBPAC auxiliaryman) (808) 473-5577 Ext. 101 (DSN 315)

## Non-Diving Supervisor 2002 Course Dates

The following are scheduled class convening/graduation dates for the non-diving supervisor (CIN A-433-0029) courses in Groton, Ct and Pearl Harbor, HI:

### Non-Diving Supervisor (Pearl Harbor)

Convening Date	Graduation Date
11 Mar 02	15 Mar 02
10 Jun 02	14 Jun 02
16 Sep 02	20 Sep 02

### Non-Diving Supervisor (Groton)

Convening Date	Graduation Date
01 Apr 02	05 Apr 02
05 Aug 02	09 Aug 02

If you have any questions concerning the courses contact: ENC Blanton (NAVSUBSCOL Groton) at (860) 694-3422 (DSN 836); BMC(DSW) De Witt (NSTCP) at (808) 472-7395 (NSTCP web site: [www.cnet.navy.mil/nstcp/divers.htm](http://www.cnet.navy.mil/nstcp/divers.htm)).

# Chlorate Candle Flood System

**MMC (SS) Gallenstein**

Never heard of this system? Let me start out by saying that 688-class submarines do not have this system. But, for both Trident and Seawolf classes, it's a whole different story.

The chlorate candle flood system works identical to the pyro-ammo flood system (In fact they're on the same maintenance index page (MIP) and maintenance requirement card (MRC)). The question, or should I say, the problem is "Who is doing the PMS on the chlorate candle flood system?"

On MIP 5221/017 (in the scheduling aids section) you can see which boats are responsible to accomplish certain maintenance requirements (MRs). Please notice note 2.

- |  |
|--|
| 1. MRC M-1 is only applicable to SSN 642 and SSN 645.<br>2. SSBN 726 Class accomplish MR 1 and MR 2 of MRC S-1.<br>SSN 21 Class accomplish MR 1 and MR 3 of MRC S-1.<br>All others accomplish MR 1 of MRC S-1.<br><br>* This is a Safety of Ship item. |
|--|

After reading the scheduling aid (note 2) you might be wondering what MR 1, 2 and 3 of S-1 are. I have included them below.

- |            |   |
|------------|---|
| 49 3VPPF N | 1. Inspect and test pyrotechnic locker flood system(s).<br>2. Inspect and test chlorate candle storage locker flood system.<br>3. Inspect and test chlorate candle storage locker flood system. |
|------------|---|

The next thing I want to point out is the maintenance requirement description from MRC S-1 (49 3VPPF N).

- |   |
|---|
| <b>MAINTENANCE REQUIREMENT DESCRIPTION</b><br>1. Inspect and test pyrotechnic locker flood system(s).<br>2. Inspect and test chlorate candle storage locker flood system.<br>3. Inspect and test chlorate candle storage locker flood system. |
|---|

Now this is where the problem seems to exist. Everyone onboard knows the torpedoman do #1 (pyrotechnic locker flood system). But, is anyone doing #2 or #3? Should it be the torpedoman or the auxiliaryman? Not sure?

There are several options available for fixing this (e.g., have the torpedoman do it all; have the auxiliaryman do it all; or do a "split-maintenance responsibility" of the MIP and MRC between both work centers). In the case of split responsibility, (approved by executive officer) each work center would omit (department head line out and initial) the MR not applicable to them.

Last but not least, some of the more common discrepancies I see while conducting safety surveys include: missing test plugs, damaged or missing gaskets, missing spanner wrenches and broken glass or no glass over the flood valve. On one unit, the chlorate candle flood system had not been tested in two years!

**Is Your Chlorate Candle Flood System PMS Being Done?**

## Welcome Aboard

Welcome aboard to FTSM(SS) Chris Clements. Master Chief Clements reported to the Submarine Safety Division as one of our safety analysts. His previous duty stations include: USS Shreveport (LPD 12); USS Tucson (SSN 770); Commander Submarine Force

Atlantic Fleet; USS Lapon (SSN 661); USS Casimir Pulaski (SSBN 633); Submarine Training Facility Charleston; USS Groton (SSN 694). You can reach Master Chief Clements at (757) 444-3520 Ext. 7099 (DSN 564), or e-mail him at [cclements@safetycenter.navy.mil](mailto:cclements@safetycenter.navy.mil).

# The Chickenhead Award

ETC(SS) Houck

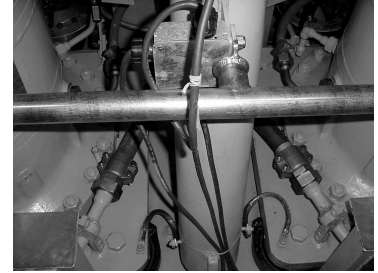
Since this is the end of 2001 and beginning of 2002 let's do something different. This issue is dedicated to some of the many photos taken during our 2001 travels. See anything familiar?



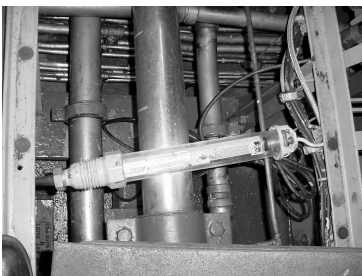
Unapproved Power Strip



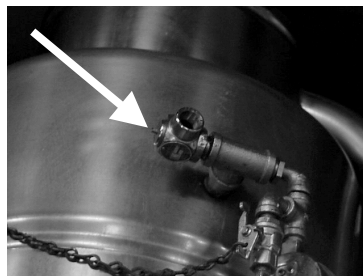
APC System PMS?



Unapproved Electrical Mod



Permanent Bilge Droplight?



Broken Kettle Relief Valve



Authorized?

## In The News Again? (Tactical Vest Update)

MMC (SS) Gallenstein

Two submarines recently equipped their topside and security forces in the tactical vest after COMSUBLANT 061709Z DEC 01 (NOTAL) said the tactical vest *"may be used for ballistic protection."*

The tactical vest was never certified to be used for ballistic protection. In other words, *the tactical vest provides no ballistic protection! None!* COMSUBLANT 141709 JAN 02 (NOTAL) cancels COMSUBLANT 061709Z DEC 01 (NOTAL).

ALSAFE 003/02 (COMNAVSAFECEN 102000Z JAN 02) reports that NAVSEA has completed testing on the tactical vest's holster



and buoyancy fixes. Tactical vest modification kits will be delivered to the fleet by the fleet ILOs (Fleet CINCs will determine delivery priority). NAVSEA will be providing delivery information under separate correspondence.

If you have any questions contact:  
A. Woodward (NAVSEA 04L4B) at (202) 781-1854; M. Campbell (NAVSEA 05L4) at (202) 781-3619. You can also contact me at (757) 444-3520 Ext. 7091 (DSN 564) or e-mail [mgallenstein@safetycenter.navy.mil](mailto:mgallenstein@safetycenter.navy.mil).

**Note:** *There is a combined, floatation device/ballistic protection vest currently being tested by NAVSEA. If approved, the vest will be added to the physical security AEL 2-320024503.*

# **Effective COMNAVSAFECEN Afloat Safety Advisories For 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 for Surface Ships and Submarines
11-01	282050Z NOV 01	COMNAVSAFECEN Security Clearance Information
12-01	051610Z DEC 01	Cancellation of Safety Advisory 08-00
13-01	181710Z DEC 01	Possibly Defective OBA Canisters
14-01	281345Z DEC 01	Transferring Oily Waste

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**Commander Naval Safety Center**  
RADM Stephen Turcotte      Ext. 7000

### 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 advance notice of other safety-related information.

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

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