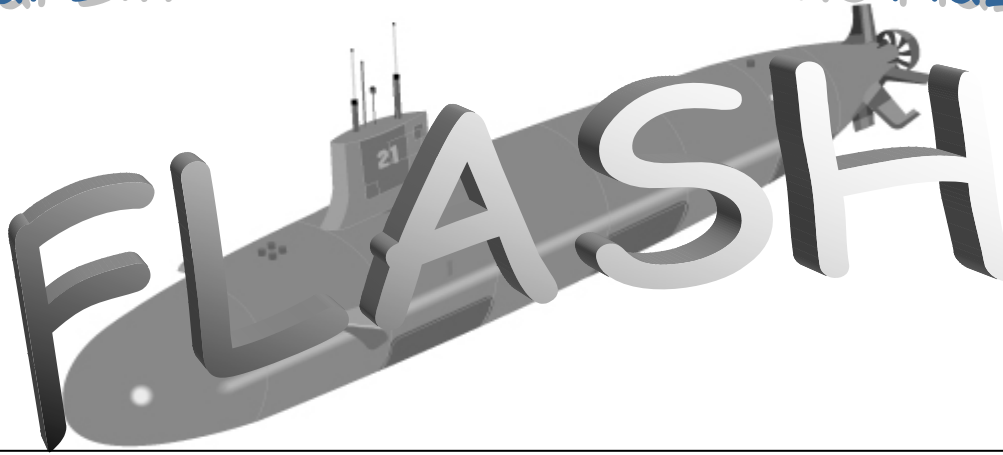


Submarine Division of the Naval Safety Center Factual Lines About Submarine Hazards



July-September 2007

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Route for Safety's Sake

CO _____ XO _____ NAV _____ ENG _____ CSO _____ SUPPO _____ MDR _____

DCA _____ COB _____ EDMC _____ 3MC _____ CPOs _____ Ship's DCPO _____

When reading through these articles, remember this is not an all inclusive list and there are many other issues that should be addressed with regard to each section's attribute checklist. Each section owner is cautioned to review the Hazard Reviews for each section. For further information or assistance in improving your safety and/or processes go to: <http://safetycenter.navy.mil/afloat/downloads/default.htm> - submarine.

Now that we have come to the end of the fiscal year, it is time to revisit the top five list for the most common deficiencies which we have come

across while performing submarine surveys. Every survey question and reference for a safety survey is listed on the Navy Safety Centers website www.safetycenter.navy.mil. Your command is required to conduct a self assessment of safety programs yearly and we recommend using our checklists to complete this self assessment. This information is provided to allow training of the next generation Sailors to perform better and learn from the discrepancies of today. **A review of historical data revealed that the majority of these have been in the top five for the past 20 years.**

Damage Control

MMC (SS) Fannin

5. PKP Extinguishers - 88.9% had PKP extinguishers with over tightened caps. The requirement is hand tight. Ref: MIP 6641/009 SERIES MRC A-18R

4. SCBA - 91.7% had SCBA bottles below the minimum pressure of 4000 psi. Ref: MIP 5519/016 SERIES MRC W-1.

3. LiOH Hoppers - 91.7% had LiOH hoppers with PMS performed improperly, had not been electrically safety checked, or had un-

satisfactory material conditions. Ref: MIP 6641/009 SERIES MRC A-14

2. OBA's - 100% of OBAs had dirty inhalation and exhaust valves. The valves are required to be cleaned. Ref:; MIP 6641/009 SERIES MRC Q-8R

1. AFFF Extinguishers - 100% had AFFF extinguishers that were under or over charged with AFFF solution. Ref: MIP 6641/009 SERIES MRC Q-10R, A-1R, R-48

Medical

HMCS (SS/AW/SW) Bonneville

5. Eyewash stations and bottles locations not properly marked - 64.7% had eyewash stations or bottles that were not clearly marked with visible signs. Ref: OPNAVINST 5100.19E para B0508a

4. Potable water equipment painted blue - 70.6% had potable water hose ends, caps, wrenches or risers that were not painted dark blue. Ref: NAVMED P-5010 para 6-19

3. Missing eyewash bottles - 70.6% were missing eyewash bottles in nucleonics and near the secondary sample sink. Ref: OPNAVINST 5100.19E para B0508c

2. Potable water hose connections not properly marked - 72.2% had potable water hose connections that were not marked with a warning sign (1 inch red letters) "CAUTION

DISCONNECT HOSE WHEN NOT IN USE" Ref: NSTM 533 para 2.1.2

1. Vacuum breakers missing - 83.3% had vacuum breakers (backflow preventers) missing from sinks or faucets with threaded hose connections. Ref: NSTM 533 para 2.3.5.1 and NAVMED P-5010 para 6-42.

Electrical EMCS (SS) Brunberg

5. Clothes dryer fire prevention - 38.9% were lacking the required dryer fire prevention placard in the laundry space. Ref: OPNAVINST 5100.19E and NSTM 655 and can be ordered under NSN 0177-LF-008-8200.

4. Water heater temperature - 43.8% had water heaters set above 130 F. Ref: NSTM 533 "sets the upper limit at 130 F to prevent burns to personnel."

3. Navigation lighting panel N-1 - 50% had shock hazards in their N-1 lighting panels. This hazard was supposed to be eliminated by A&I N-3171 and TZ-0856. The hazard comes from an exposed, energized, metal stiffener in the circuit breaker handles. Unfortunately the safety hardware which consists of plastic thumbscrews and plastic insulating bushings that are designed to insulate the operators is often found to be missing. Check your N-1 panel and ensure it is safely configured. If you are unsure of the correct configuration please contact me for clarification. Ref:
COMSUBLANT/COMSUBPAC A&I N-3171 FOR 688 CLASS, A&I TZ-0856 FOR 726 CLASS, INSULATOR SCREW NSN: 9G 5970-01-094-3317, INSULATOR BUSHING NSN: 9G 5970-01-094-1582

2. Main storage battery - 50% did not have chemical goggles readily available for use in the battery well. The SSORM requires chemical goggles to be worn any time a battery cell is open. If the goggles are not available, we assume no one is using them. Make the goggles available wherever you store your battery tools. Train your personnel on the requirements and their uses. Let's eliminate this hazard. Ref: COMNAVSUBFORINST 5400.38/5400.39 ARTICLE 4309, NSN 4240-00-190-6432, NSN 4240-00-764-5152

1. Electrical safety programs - 50% were not maintaining their electrical safety programs properly. MIP 3000 series and NSTM 300 specify the required periodicity for safety checks. The periodicity varies depending on the type of electrical equipment involved. Personal items are not included. The most non-compliant items continue to be submersible pumps and other damage control gear. This is doubly unsatisfactory because electrical safety checks on damage control gear are required by electrical and auxiliary division PMS. All divisions must be involved in the effort to safety check and track portable equipment. Each crewmember should be trained that portable equipment cannot be plugged into the ship's electrical distribution system unless it is safety checked and tagged.

Mechanical

ETC (SS/DS) Mackey

5. Pneumatic grease guns - 56.3% had not configured the pneumatic grease guns properly. Ref Submarine Greasing Manual NAVSEA T6350-AA-HBK-010 Fig 2-1.

4. Non-skid strips/safety tape - 61.1% had improperly displayed or non-existent non-skid strips and striped yellow and black tape on the deck in front of the lathe, drill press, and bench grinder (diamond tread DOES NOT satisfy the requirement) Ref: OPNAVINST 5100.19E para D0804.

Deck Strips 96 7220-00-205-0389

Checkerboard Yellow and Black Tape
9905-01-342-5934

Striped Yellow and Black Tape 9905-
01-342-5933

3. Safety precaution signs - 61.1% had improperly posted or non-existent safety precaution signs posted at the lathe, drill press, and bench grinder Ref: OPNAVINST 5100.19E para D0804.

2. Bench grinder tool rest - 64.7% had improperly installed and/or adjusted the tool rest to within 1/8" of the grinding or wire wheel Ref: OPNAVINST 5100.19E para D0804 g.2.1.

1. Eye protection - 100% failed to install the point of operation guard (chip shield) on the drill press and the lathe Ref: OPNAVINST 5100.19E para D0804 and the Government Source (Rockford Systems 800-922-7533 or sales@rockfordsystems.com)

Combat Systems

MMC (SS) Lint

5. Otto fuel spill Kits - 50% do not have a complete Otto fuel spill kit in the torpedo room and a secondary kit outside of the torpedo room. Ref: MRC 7500/ADC R-5**, 7500/R48 R-5** NAVSEA OD44979 VOL 4 C-1

4. Small arms and pyrotechnics - 55.6% do not have "AMMUNITION FAR SIDE" in all required areas. Ref: NAVSEA OP 4 REV 8 PARA 2-19 NSTM 700 PARA 700-5.7.1

3. Physical security gear - 57.1% do not maintain all the required physical security gear. Ref: AEL 2-320024503 DATED 24 MAR 04

2. Small arms and pyrotechnics - 60.0% are not segregating dummy and drill ammunition from ready service ammunition. Also, the ammunition can is improperly color coded, and improperly labeled. The correct color is "gold", and the proper label is "For practice only". Ref: NAVSEA OP 4 REV 8 PARA 3-14.11 AND 3-14.11.2; NSTM 700 PARA 5.11.2; SW010-AF-ORD-010 TABLE 1-1

1. Small arms and pyrotechnics - 66.7% have paint and foreign debris on the knife edges of magazine doors. Ref: NSTM 700 PARA 700-5.13.4

Deck

MMC (SS) Lint

5. Life buoy rings - 61.1% of the distress marker lights are not being attached with 4ft of $\frac{1}{4}$ " buoyant poly line. Ref NSTM 077-2.6.2.2

4. Submarine escape and immersion equipment - 66.7% are not maintaining an inventory log for all SEIE suits, and valises. Ref MIP 5940/005 MRC A-1

3. Escape trunks - 66.7% did not modify escape trunk battle lanterns properly or have not modified them at all.

Ref COMFLTFORCOMINST 4790.4 VOL IV, 18 APPX A, NAVSEA S9AAO-SPN-010 SECT 332F

2. Helo transfer kit - 72.2% do not have a complete helo transfer kit. Ref AEL 2-330023065 SHIP SYSTEM MANUAL (SSM) OP 61-20 MIP H-406/002 MRC A-1R

1. Submarine escape and immersion equipment - 83.3% have SEIE storage lockers that are not pad locked and anti-pilferage seal installed in port. Ref MIP 5940/005 MRC A-1

Safety Officer LCDR Webb

#5. Safety officer - 75% of safety officers have not attended the safety officer course or completed the online safety supervisor correspondence course (NAVEDTRA 14167). Ref: OPNAVINST 5100.19E para A0502a (3), A0203c (14), A0503a

#4. Safety officer - 76.5% of commands have not submitted lessons learned message(s) to the CNO. Ref: OPNAVINST 3500.39B Para 7h(7).

#3. Safety officer - 82.4% of the commands do not have a process in place to track personnel convicted of serious traffic violations or who have been found at fault as a result of a traffic mishap. Your command should be using this information to mentor Sailors and provide direction for driving improvement. Ref: OPNAVINST 5100.12G Encl. 1 Para 3.B

It would be quick and easy to have all personnel sign a page 13 requiring them to report to the command if there is a change in their motorcycle riding status or if any vehicle mishap or ticket occurs on or off base. The traffic safety officer/safety officer would maintain a copy of the page 13s, any mishaps or tickets reported, and track the commands directed actions to completion. This would support the command's requirement in this area and also in the issue of new motorcycle rider requirements.

#2. Safety officer - 83.3% of the commands do not review the effectiveness of all safety programs annually. Also, 72% of the commands are not reviewing commands mishap and near mishaps, injuries, and inspection and survey reports to evaluate if command directives or policy changes would improve safety. Ref: OPNAVINST 5100.19E para A0303.

Recommendation: Designate the last safety council meeting of the year as the annual review meeting. Safety officers pull together the past year's safety related history data from your ship and other major issues from submarines of the same class. The safety council can review the available data, evaluate if changes are required, and designate action to correct issues. The safety officer's minutes of the meeting are maintained for review during inspection and tracked for completion of tasks assigned by the safety council. Use the results for your annual lessons learned message to the CNO.

#1. Safety Officer - 88.2% of command safety officers do not periodically review the log of permanent hearing threshold shifts maintained by the corpsman to determine trends that could indicate inadequate use of hearing protection or overexposures to excessive noise. Ref: OPNAVINST 5100.19E para B0402b (3), B0404a, and B0409. An easy way to complete and prove this requirement is to add the safety officer to the routing sheet of the hearing log. Safety officer review, initial, date and indicate action if required on log during the regular review cycle.

Hail

Welcome aboard to HMCS(SS/AW/SW) Joe Bonneville who recently reported to the Submarine Safety Programs Directorate of the

Naval Safety Center from USS TEXAS (SSN 775). He will assume the duties of submarine medical analyst (Code 334).

Effective COMNAVSAFECEN Submarine Safety Advisories

17-00 201959Z DEC 00	Contract Liberty Boat (Water Taxi) Safety
1-07 291542Z JAN 07	Effective COMNAVSAFECEN Afloat Safety Advisories for Surface Ships and Submarines
2-07 021652Z FEB 07	Topside Safety
3-07 051234Z APR 07	Submarine Safety Lanyards
5-07 281731Z JUN 07	Guidance on MK-1 Life preservers
6-07 061830Z AUG 07	Guidance on Maintaining Soil, Waste, and AFFF Piping Systems and Components
7-07 081545Z AUG 07	Guidance on NAVSEA Approved Safety Harnesses and Climber Safety Sleeve Recall Interim Aloft Procedures
8-07 021710Z OCT 07	Suspension of the Afloat Safety Climate Assessment Survey
9-07 191530Z OCT 07	COMNAVSAFECEN Security Clearance Information
10-07 081900Z NOV 07	Information on Safety Recall for Tektronix TDS3BATB Lithium-Ion Battery

To download, you must be on a .mil domain terminal and have a PKI certificate. Go to our secure web site by selecting the [Secure site](#) link. Once you are on the secure site, select the [Afloat Messages](#) link, and then select the [advisories](#) you need.

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.

Naval Safety Center

375 A Street
Norfolk, Virginia 23511-4399
Phone: (757) 444-3520 (DSN 564)
Fax: (757) 444-8636 (DSN 564)

submarines@safetycenter.navy.mil
<http://www.safetycenter.navy.mil>

Commander Naval Safety Center

RADM A.J. (Blackjack) Johnson Ext. 7002

Afloat Directorate Head

CDR Edward Hogan
Edward.hogan@navy.mil Ext. 7127

SURVEYORS

Safety Officer/General Departmental

LCDR Carville Webb Ext. 7201
Carville.webb@navy.mil

LT Al Koch Ext. 7097
Albert.koch@navy.mil

DC/Mechanical/Electrical/Electronic

MMC (SS) Dan Fannin Ext. 7073
Daniel.fannin@navy.mil

EMCS (SS) Steve Brunberg Ext. 7092
Steve.brunberg@navy.mil

ETC (SS) Michael Mackey Ext. 7098
Michael.Mackey@navy.mil

Medical

HMCS (SS) Joe Bonneville Ext. 7202
Joseph.bonneville@navy.mil

Combat Systems/Deck

FTCS (SS) Daryle Lauber Ext. 7104
Daryle.lauber@navy.mil

MMC (SS) Michael Lint Ext. 7146
Michael.lint@navy.mil