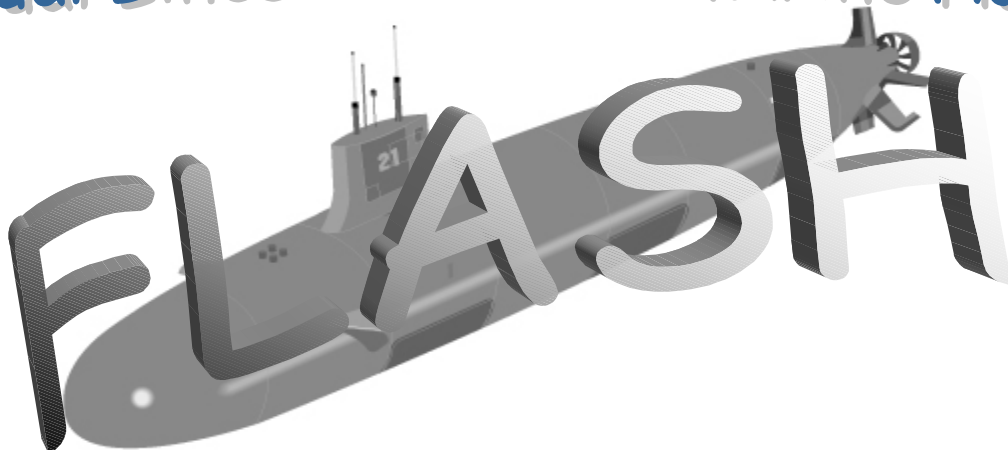


Submarine Division of the Naval Safety Center Factual Lines About Submarine Hazards



April-June 2006

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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.

Navy Off-Duty Private Motor Vehicle (PMV) Requirements, Roles and Responsibilities

LCDR Chandler

As many of you know, personal motor vehicle (PMV) mishaps result in the largest number of off-duty Navy deaths each year. Non-fatal, off-duty PMV mishaps also result in a significant number of lost workdays. Many of these PMV crashes are preventable.

In May 2003, SECDEF challenged DOD to "Reduce the number of mishaps and accident rates by at least 50% in the next two years." He further stated, "These goals are achievable, and will directly increase our operational readiness. We owe no less to the men and women who defend our nation." These goals are based on FY-02 mishaps and mishap rates.

In ALNAV 057/03, SECNAV endorsed the 50% goal "To demonstrate that our Sailors, Marines, and civilian employees are truly our most precious asset!" Furthermore, "Preventing mishaps will significantly increase our readiness and retain valuable resources." DOD established a new challenge in the FY-06 Strategic Planning Guidance to continue reducing mishaps and mishap rates by 75% by the end of FY-08, once again using FY-02 statistics as a guide.

NAVSAFCEC statistics on PMV mishaps identified six predominant factors: driving between the hours of midnight and 0600 (62%), driving during the weekend (61%), not using seat belts (43%), drunk driving (34%), speeding (23%), and driver fatigue (8%). Active leadership involvement must address these factors as a minimum.

[OPNAVINST 5100.12G \(Navy Traffic Safety Program\)](#) outlines requirements for the Navy traffic safety program. Compliance with

OPNAVINST 5100.12G requires cross-claimancy and command communication, participation and execution by the service provider (host) and the service receiver (tenant).

Commander, Naval Installation Command (CNIC) is the traffic safety service provider for all Navy shore installations. As the service provider, CNIC host commands are required to provide an adequate number of traffic safety training courses (driver improvement, motorcycle and emergency vehicle operator) to FLTFORCOM and other tenants as outlined in OPNAVINST 5100.12G.

COMUSFLTFORCOM ships, squadrons and operational shore commands shall:

Adopt the host traffic safety program.

Appoint a traffic safety program coordinator in writing.

Attend host traffic safety council meetings whenever possible.

Coordinate with host for motorcycle/driver improvement training.

Incorporate operational risk management into the approval process which limits driving distances for PMV travel for off-duty Navy personnel.

Ensure supervisors counsel subordinates prior to Navy personnel leave approval on proposed travel plans, e.g., mode, mileage and time of journey.

Provide local traffic safety orientation briefing to all personnel reporting for duty from outside the local area.

Provide traffic safety briefs to all Navy personnel prior to major holiday, extended weekends or liberty periods.

Schedule traffic safety briefs when visiting foreign ports, returning from deployment, or when mishap experience warrants.

Identify all Navy personnel who ride motorcycles (not just those who ride on base), and ensure they receive motorcycle safety training. Encourage all motorcycle operators to use required safety equipment and complete a refresher course before each riding season, after long periods of inactivity, purchase of a new motorcycle, or transfer to a new geographical area.

Ensure Navy personnel who ride motorcycles are licensed and insured.

Identify personnel who are required to receive AAA driver improvement training and ensure they attend training. (All personnel with a job designation that requires them to operate government motor vehicles (GMVs); military and civilian personnel driving a GMV involved in a crash on or off government property; personnel described above driving a GMV or PMV who have been convicted of serious moving violations - reckless driving, driving while impaired, speeding, following too closely and failure to yield).

Stress the hazards discussed above during all traffic safety briefs, stand-downs and leave approval process.

Communicate the judiciary consequences stated in OPNAVINST 5100.12G for personal non-compliance.

Stress the legality of wearing portable headphones, earphones or other listening devices while operating a PMV.

Exercises caution when using cellular telephones or global positioning system while operating a PMV off base.

The ultimate success in reducing off-duty military mishaps and fatalities will require a cultural change and, add to some extent, "intrusive leadership" to effect off-duty behavior.

The COMNAVSAFECEN homepage, available at www.safetycenter.navy.mil lists numerous tools and initiatives designed to enhance command traffic safety programs. They are accessible in the [Traffic Safety Toolbox](http://www.safetycenter.navy.mil/ashore/motorvehicle/toolbox/default.htm) (<http://www.safetycenter.navy.mil/ashore/motorvehicle/toolbox/default.htm>). Commanding officers and officers-in-charge are encouraged to utilize applicable tools at their command, as well as develop other innovative methods to reduce off-duty military PMV mishaps and fatalities.

As I write this article our FY-06 PMV Navy fatalities total 56 Sailors, far exceeding the 75% reduction ceiling by 27 Sailors. These fatalities can be further categorized by 4 wheel e.g. cars and trucks; 37 Sailors, 2 wheel e.g. motorcycles; 18 Sailors and 1 pedestrian. All traffic safety coordinators should take a hard look at their current programs to ensure they are in compliance with the requirements as listed above. Please feel free to contact me with any questions regarding traffic safety.

A final note regarding operational risk management training: the FY-06 ORM application & integration course schedule is posted on our website under the ORM page. The message is NAVADMIN 077/06. Once again I look forward to seeing you in the near future. Ask the three critical questions:

What can go wrong? What can I do about it? If I cannot do anything about it, whom can I tell? Never be the junior most guy holding information, always tell your supervisor if something is not going as planned. Stay safe!

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Damage Control

MMCS (SS) Morrow

Those who do not learn from the past are doomed to repeat it. With that thought in mind, I have decided to bring up past discrepancies that are still applicable. These are items discovered during a safety surveys or INSURV inspections on a regular basis. Even though many of these items should have been corrected long ago they could use a fresh look.

PKP extinguisher hoses - Recent INSURV results show that many boats have improper, or defective, PKP hoses in service. Inspect the discharge hoses of your PKPs and replace the hose if the following conditions exist:

- (1) There is no identification criteria printed on the hose or the printing is illegible, or
- (2) The hose is EX-607, and the date code is between 1Q77 and 4Q83. If dated before 1Q77 or after 4Q83 the hose is good, or
- (3) The hose is EX-589, check the nut between the hose and nozzle assembly. If the hose nut does NOT have a notch or the part number is not preceded by an "H" (example 6305 vice H-6305) replace the hose.

4 MC Handsets - There are two marking procedures to follow for the 4MC handset.

The first is A&I B-505 / N-545 dated Dec 1970. This A&I requires placing a 3/8" X 2" piece of plexiglass on the back of the handset.

Second, two pieces of red reflective tape (each two inches long) on each side of the plexiglass length-wise down the back of the handset. Photoluminescent marking A&I N-3104/T-0089 requires placing a strip of photoluminescent tape on the holder.

AFFF without charging connection -

In 2002, Amerex Corporation changed the manufacturing process for AFFF extinguishers constructing them without the charging valve at the handle. After a couple of months, Amerex started adding the valve back to the extinguishers supplied to the Navy. However, some of these extinguishers may be sitting in a supply warehouse somewhere. If you receive extinguishers without the charging valve you must use an adapter to charge the extinguisher with air. Free adapters are available from Amerex representative Janice Price at (205) 655-3271 or e-mail her at jprice@amerex-fire.com. The other option is to turn the extinguisher back into the supply system with a Quality Deficiency Report.

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Mechanical Equipment

MMCS (SS) Morrow

EOG and steam kettle testing are items that continue to stay in the top 10 deficiencies noted on submarine safety surveys. The main factor appears to be a lack of understanding of the requirements of the PMS. Both of these areas involve the safe operation of equipment.

EOG Gauge Calibration

Virtually every submarine is in full compliance with the requirement to calibrate EOG

meters annually. However, some submarines or calibration facilities ignore the fact that MIP 5154/903 A-3 AND A-4 requires annual gauge calibration. This does not just mean that every year you check to make sure that the gauge has a current sticker. To complete this PMS, FMA must assist ship's force in conducting, "In Place," gauge calibration of all mechanical gauges for the EOG. Ship's force must submit an automated work

request in sufficient time for the FMA to respond before gauge calibration expires.

Steam kettle piping and relief valve testing.

Testing of the relief valve on the steam kettles is not a common discrepancy. The problem lies in the fact that MIP 6520/001 A-1 and A-2

requires ship's force to accomplish hydrostatic testing of the piping. This applies to steam kettles as well as electric kettles. The PMS also requires ship's force to attach an accomplishment tag to the piping similar to the one that FMA will attach to the relief valve.

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Deck Safety Follow-up on the new safety harnesses

FTCS LAUBER

I just returned from the fall protection working group meeting. The new full body harnesses and safety lanyards that are currently being distributed to several submarines for evaluation were introduced at the working group. The initial response was positive as evidenced from feedback. Each submarine received three harnesses manufactured by MSA (red & blue) and three by DBI/SALA (yellow) with a couple of dual leg nylon strap safety lanyard (bungee cord type). The purpose of the dual leg lanyard is to eliminate the need for the working lanyard to be used as a turn around. NAVSEA is currently assigning a NSN to them so surface ships can start using them. This should be completed within the next couple of months. This will get us one step closer to getting them approved for submarine use.

Another point of interest is the Allowance Parts List (APL) for the man overboard bag. It has the wrong stock number listed for the full body harness (NSN 4240-00-022-2522); this NSN will give you a yellow parachute style harness that looks very similar to the DBI/SALA harness. You should only use the Allowance Equipage List (AEL) for ordering the harness (NSN 4240-01-421-0859). If you have ordered the wrong harnesses, replace them immediately with the orange parachute type harness.



Unauthorized



In Submarine Force Revision 2-06, all MRCs associated with the MK1 auto-inflatable life jacket have new figures. The figures include the man overboard indicator (MOBI), which is an electronic device that is beginning to be used on surface ships. Submarines will not be receiving this system in the near future; so don't think that you are missing this from your life jackets and start ordering the MOBI.

Heat Stress Program Recurring Deficiencies

HMCS (SS) Tim Juneau

The Safety Center has performed 15 submarine safety surveys in FY 2006. In the course of these surveys, I have noticed the NAVOSH programs are not properly implemented or are not properly managed. A submarine cannot have an effective NAVOSH program without coordinating and training all personnel involved with the administration, training, and management of NAVOSH. It is imperative that the safety officer and medical department representative coordinate with each other to develop a good NAVOSH program that is to the point, and details the responsibilities up and down the chain of command with the specific requirements and program expectations.

Most recurring areas of heat stress concerns include:

1) Dry Bulb Thermometers: With the exception of the submarines surveyed in dry-dock availabilities, every submarine surveyed had a heat stress program that was lacking in one-way or another. The most common recurring deficiency was NAVSEA approved hanging dry bulb thermometers were not permanently mounted at all key watch and workstations where heat stress conditions may exist. Section B0204b (1) of OPNAVINST 5100.19D discusses the requirements for positioning.

2) Dry Bulb Temperature Readings and Recording: The submarine shall record dry bulb (DB) temperature readings when the submarine is underway or when potential heat-stress conditions exist while in port. OPNAVINST 5100.19D paragraphs B0204b (3) and (4) require monitoring in the following areas when manned as a minimum: machinery spaces, auxiliary spaces, galley, and laundry. Assigned personnel shall monitor spaces as follows: Every four hours for manned spaces if

DB temperatures do not exceed 85 degrees Fahrenheit. Every hour for manned spaces if DB temperature exceeds 85 degrees Fahrenheit. Hanging DB temperatures shall be recorded on a prepared log form and reviewed by the space supervisor, e.g. EWS, EOOW, and COW. If the DB exceeds 85 degrees Fahrenheit the temperature shall be circled in red and the watch supervisor notified. The watch supervisor shall then direct heat stress surveys to be conducted.

3) Heat Stress Training: Paragraph B0206 of OPNAVINST 5100.19D requires all hands receive heat stress training upon reporting on board. This training maybe conducted by showing the heat-stress videotape "Play it Cool: Heat-Stress Prevention Afloat" located at <http://dodimagery.afis.osd.mil> or by using a heat stress lesson training guide which will cover at a minimum:

- (a) Heat stress health hazards
- (b) Symptoms of excessive heat stress exposure
- (c) Heat stress first aid procedures
- (d) Heat stress monitoring
- (e) Causes of heat stress conditions

4) Heat-stress surveyors: None of the 15 submarines surveyed had anyone trained and or qualified to perform heat stress surveys using the Heat-Stress Surveyor Watch station 303 of the Safety Programs Afloat, Personnel Qualifications Standard (PQS), NAVEDTRA 43460-4B within 12 weeks of assignment. Of note, the MDR was the only one assigned to perform these duties. It is recommended that engineering personnel be trained and qualified to perform heat stress surveys to back up the MDR in case of casualty or MDR being unavailable

PMS Complete...Almost

EMCS (SS) Brunberg

On recent safety survey visits, I have noticed an alarming trend; PMS has not been fully accomplished.

Here are some examples:

MIP 3000/29; Electrical safety checks. I found many items with safety checks that were several **years** out of periodicity.

MIP 3301 Q-2R; Inspect and test battle lanterns. This MRC requires verifying the integrity of the switches' rubber boot. I frequently find numerous lanterns with torn or missing rubber boots.

MIP 3000/29 S-10; Inspect safety shorting probes has a step requiring the spare hole in the handle end to be filled with sealant, I still find many unfilled.

The previously mentioned MRCs were annotated as completed on the schedule. These are

just a few examples; we are seeing increasing evidence of improper or incomplete PMS in all of our survey areas. Sometimes it is a small detail or single step of the MRC that is missed. Attention to detail is critical in accomplishing PMS. This trend is not acceptable. As a professional, you should take care to follow and complete every step of an MRC meticulously! "Almost" only counts in horseshoes and hand grenades.

I recommend all technicians take care to ensure that all PMS assigned to you is fully accomplished IAW the MRC. All commands should incorporate a review and monitoring program along with periodic PMS spot checks conducted by the LCPO or division officer as required by paragraphs 1-4.1 and 1-5.22 of NAVSEAINST 4790.8B w/Ch. 2.

WESS-DS (Web Enabled Safety System - Disconnected System)

Steve Scudder

WESS-DS (Web Enabled Safety System - Disconnected System) is a method of preparing WESS records off line and submitting them via the on-line WESS connection. If the ship falls (all the time or sometimes - even in the future) in the "Fleet and Field Units Who Lack Internet Access) category (and most submarines do), we recommend all WESS users request the WESS-DS CD when requesting a WESS account. That will ensure they get the CD containing the off-line reporting program and receive updates to the program as they come out.

WESS-DS is designed to automatically mail the report files (two for each record - one *.xml and

one *.txt) to us the next time the ship has e-mail connectivity. However, WESS interfaces only with the NIPRNET. So, if you prepare a report using WESS-DS and don't have NIPRNET connectivity, you need to copy the two attachments and send them to us via SIPRNET. Send the two files to: Steve.Scudder@navy.smil.mil and we'll move and import the records into our WESS database. Please make sure you don't include any classified information in the report (whether you're using WESS-DS or the on-line WESS).

Effective COMNAVSAFECEN Submarine Safety Advisories

17-00 201959Z DEC 00

Contract Liberty Boat (Water Taxi) Safety

1-06 031600Z JAN 06

Effective COMNAVSAFECEN Afloat Safety Advisories
for Surface Ships and Submarines

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.

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