

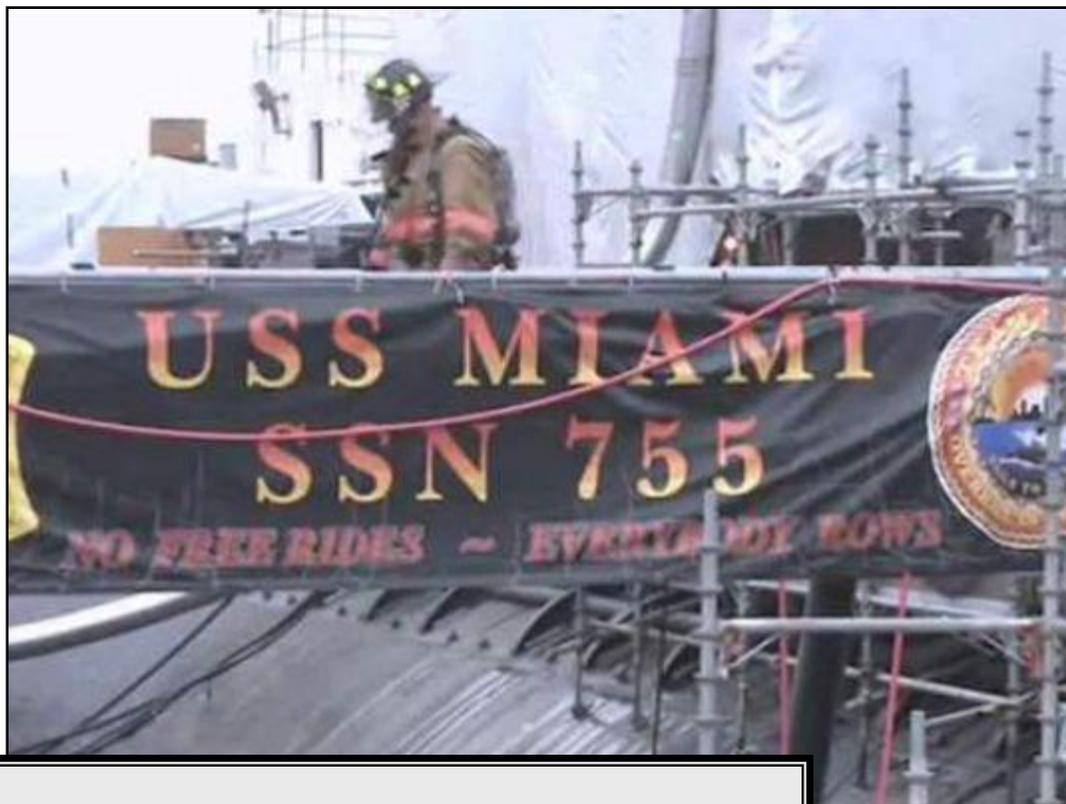


# FLASH

actual lines about submarine hazards

January -March 2015 Edition

**FLASH** is a periodic release by the Afloat Safety Directorate of the Naval Safety Center. The information contained herein is a summary of research from selected reports of submarine hazards to assist you in your mishap prevention program. The FLASH is intended to give advance coverage of safety-related information while reducing individual reading time. This bulletin does **not**, in itself, constitute authority but will cite authoritative references when available. **It is recommended that this newsletter be made available to all hands.**



### FLASH

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## From the Submarine Safety Division Head

LT John Oravitz

### “On The Wings of Change – Risk Management Culture”

An update and continuation from my last article... Yes, we are still doing “Safety Assessments” and the 36-month interval will become a reality for all submarines by FY 2016 – that much is staying the same for now. Assessing *risk management culture* is the next chapter in safety and you will hear about it and know what it means – I can guarantee you that. Big picture, the methodology of Safety Assessments will begin to focus on risk management culture. Tools are in development; but we will be incorporating it as soon as FY 2016 with some beta testing next quarter. There is discussion of assessing risk management culture during an underway period, potentially during INSURV – yes, we have met with and we have started discussions with INSURV. Internally, we are developing multiple courses of action relative to the development and implementation of how we will assess risk management culture in the future. There are distinct differences in how the surface fleet and submarine fleet do business with regard to inspections and assessments and change can be difficult to implement. What I do know is that we are not alone and pushing from the bottom; people (with stars) are pulling from above. That being said, change is coming... we will keep you posted.

### “NEWS FLASH IN *THE FLASH*”

If you are in Pearl Harbor, HI on 05JUN2015 you need to be sitting in Sharkey Theater on the Submarine Base at 0800! The Naval Safety Center Submarine Division will be hosting its first ever REGIONAL SAFETY SEMINAR with special guest speakers from COMSUBLANT, COMSUBPAC, and your beloved Naval Safety Center. You can hear it *straight from the horse’s mouth* and – this is important – there will be muster sheets that will give you credit in CTQS for all subjects discussed. The agenda isn’t finalized yet, but anybody who signs in and attends the seminar has met the requirement for training. FYI, if you attend only the ORM portion, before it is over, we will make copies of the muster sheet and one representative from each boat present will take a copy back to their Training Officer and the Training Officer should update CTQS immediately. What a deal.



# Mishap Reporting

**LT Mike Lopez**

Last quarter, the fleet saw the first Quarterly Update Report from the Naval Safety Center. The report highlighted the different mishaps occurring in the fleet based on certain criteria reported in Web Enabled Safety System (WESS). As the Ship's Safety Officer (SSO), you should be performing the same trending analysis as the report. The report highlights all of SUBFOR, then by each class, showing a large disparity of reporting occurring within the community. Overall, the Submarine Force hasn't had enough WESS reports in the past quarter to conduct a very extensive analysis. There are many possible factors as to why there has not been enough reporting; such as Sailors not reporting the injury to the Medical Department Representative (MDR) or the SSO not reporting the incident in WESS. It could be that there are not as many mishaps occurring onboard submarines. Nevertheless, it is difficult to assess submarine safety culture trends based on the scarcity of WESS reports.

The SSO should also be coordinating with the MDR to ensure that all of the reportable injuries onboard submarines are being reported in WESS. This allows the SSO to better assess the command's safety culture and to emphasize the trends at the Quarterly Safety Council meeting. OPNAVINST 5102.1D Chapter 3 Section 3004 details what types of mishaps are considered reportable and Glossary G-1 defines first aid. Anything beyond first aid, as defined in G-1, is reportable. All reportable mishaps have a 30 day window from when they occurred to be reported. A bi-weekly meeting with the MDR to verify that all reportable injuries are in WESS is helpful. You can still generate a report past the 30 day deadline so that we have accurate data to analyze. The main thing is to ensure that the reporting occurs.

The goal is to ensure that we have accurate reporting to evaluate trends without reporting being a factor in assessing the trends. Ideally, this will help share submarine-safety-culture lessons learned with the rest of the fleet to make the entire fleet safer.



## Web Enabled Safety System (WESS) Access

MMC(SS/SW) Chayim

Para 3007.1 of OPNAVINST 5102.1D states:

The WESS system is password protected. To allow for local management of access to WESS mishap reporting and data retrieval, each Navy and Marine Corps command or activity will:

A safety authority, designated for each command or activity, or for a group of commands or activities, will approve requests for AHMRS and WESS access for their personnel. A safety authority could be the collateral-duty or full-time safety officer, executive officer, safety supervisor, or other authority selected by the activity. Commands shall appoint a Safety Authority (SA) to manage the command's WESS accounts. ALSAFE 043/13 (021508Z AUG 13, REQUIREMENTS FOR THE DESIGNATION OF SAFETY AUTHORITY (SA) PERSONNEL FOR COMMAND MANAGEMENT OF WEB-ENABLED SAFETY SYSTEM (WESS) ACCOUNTS AND PERMISSIONS, reiterates the requirement for commands to have at least one WESS safety authority. Designate an individual(s) to serve as their Safety Authority (SA). This is typically the safety manager, safety officer, executive officer, regional safety manager, etc., who manages WESS mishap reporting for one or more commands or activities. Provide the name, rank/rate/grade, and position title of the designated SA, by naval message or on command letterhead, to COMNAVSAFECEN. The command or activity's SA will then be electronically recorded as having permission to approve WESS account applications for personnel under their cognizance. The system is designed for all account requests to come from the web site. You can request a WESS account using the Request/Maintain Account link from the WESS link on our homepage (<http://www.public.navy.mil/navsafecen/>) or by going directly to <http://www.public.navy.mil/navsafecen/Pages/wess/WESS.aspx> If a WESS account holder has transferred, we need to delete their access. Please let us know if that action is appropriate. AMHRS provides three permission levels for additional command oversight of afloat mishap reporting. Customers with data entry permissions may enter a report in the system but cannot submit it to the Naval Safety Center. Customers with release permissions may enter and submit reports. Customers with notification permissions may receive redacted copies of mishap reports submitted by other afloat commands. In AMHRS, we created new releaser permission. All afloat WESS account holders became drafters, and all users who had notification permissions automatically became releasers. This change allows commands to better control who is allowed to release data off the ship. As this was a blanket account change, commands and safety authorities who have WESS accounts must review all users from their command to ensure the appropriate people have release authority. Anyone with an AMHRS account can initiate entries, complete reports, review, approve, edit and submit records (the release privilege is required to submit on-duty reports in AMHRS). AMHRS



and WESS have functions allowing users to save reports, retain them in the system, route them within the command for editing, approval by authorized personnel; and, for those users with release permissions, to submit them to us. You should establish your own review, approval, and release policies for AMHRS and WESS reports. For activities to manage their own use of AMHRS and WESS as well as any access to need-to-know information about mishaps, a procedure is in place, through OPNAVINST 5102.1D (para 3007), to allow local assignment and control of AMHRS and WESS users. The following is a sample message for safety authority position:

FM ship  
TO COMNAVSAFECEN NORFOLK VA//50/30//  
INFO possibly your ISIC or others in your chain of command  
BT  
UNCLAS  
MSGID/GENADMIN/name of ship//  
SUBJ/APPOINTMENT OF WESS SAFETY AUTHORITY//  
REF/A/DOC/CNO/07JAN2005//  
REF/B/MSG/COMNAVSAFECEN/171700ZJUN05//  
NARR/REF A IS OPNAVINST 5102.1D, NAVY AND MARINE CORPS MISHAP INVESTIGATION REPORTING AND RECORD KEEPING MANUAL. REF B IS ALSAFE 049/05, APPOINTMENT OF WEB ENABLED SAFETY SYSTEM (WESS) ACCOUNT SAFETY AUTHORITIES.//  
POC/ //  
RMKS/1. PER REF A AND B, COMMAND'S WESS SAFETY AUTHORITY IS:  
A. RANK/RATE/GRADE FIRST NAME LASTNAME:  
B. POSITION: (safety officer, etc.)  
B. SAFETY AUTHORITY'S (SHIP'S) UIC:  
C. OFFICIAL E-MAIL ADDRESS:  
D. TELEPHONE NUMBER:  
E. UIC(S) FOR WHICH RESPONSIBLE: (possibly a helo detachment, etc.) //  
BT



# Risk Management

EMC(SS) Belk

## 10 Factors Influencing Risk Management

Risk tolerance is the team and individual decisions of how much risk is acceptable. How much risk is your watch-team and maintenance team accepting or rejecting although hazards have been identified for each task? Evolution walkthroughs, worst-case scenario discussions during briefs, and the use of Operational Risk Management matrixes help with risk decision making. Most importantly, awareness of how these 10 factors affect your risk tolerance as a leader will enhance your team’s operational effectiveness.



**Overestimating capability (junior personnel) and experience (role models).** Reflect on your role as a mentor, admit despite your experience the exposure is still there. Acknowledge skill but reinforce policies and procedures.

**Familiarity resulting in complacency.** Encourage Sailors to focus on the task like it’s the first time they have done it. How would I teach this to a new person? Stop and think. Draw from knowledge, skill, and techniques.

**Underestimating seriousness of the outcome .** A hazard could involve a “pinch point” but the outcome actually results in amputation or crushing. Hazard identification should better define the outcome. Get people to ask, “What’s the worst that can happen? Apply the TCRM ABCD process.

**Voluntary actions and being in control.** Key factor in off-duty risk (people are 28 times more likely to be hurt off duty). Over-confidence and false sense of control may lead to under-estimating risks. Integrate “stop and think” moments into personal activities. Mentally walk-through anticipated situations.

**Personal experience with an outcome.** If you’ve seen a mishap or a near-miss that ended badly, you will be less tolerant of the risk. However, as mishap rates improve, fewer leaders will have had these experiences resulting in skepticism. Know what incidents have occurred and point out the consequences. Review lessons learned. Tell sea stories.



**Cost of non-compliance.** Identify the cost of non-compliance and increase where necessary. As the actual or perceived cost increases, the risk tolerance decreases. Remove barriers and reward those who gauge risks and mitigate the factors that increase the potential for error.

**Confidence in equipment.** Overconfidence in technology increases risk tolerance. Ensure technical training captures the limits of equipment and engineering. Promote the ABCD process and on-the-spot risk assessment. Make sure Sailors know how to gauge risk. Teach them to ask, “What if it fails?”

**Confidence in PPE and rescue.** Relying solely on PPE and rescue efforts increases risk tolerance. Emphasize the limits of protection and rescue measures. Ensure Sailors understand these as “last line of defense” controls. Provide appropriate ORM and TCRM training.

**Potential profit or gain.** Perceived or actual (fiscal, emotional, physical) gains increase or decrease risk tolerance. Remove rewards for excessive risk taking. Eliminate barriers to doing it the right way. Bring these concepts into leadership discussions to increase awareness.

**Role models accepting excessive risks.** Leaders’ actions influence the mindset, behavior and decision-making of their Sailors. Identify and address risk-taking leadership (in appropriate situations). Recognize perceived pressure that could lead to erosion of standards and address immediately.

Adapted from “Strategies for Understanding and Addressing Risk Tolerance,” Exxon Mobil, 2011. U.S. Navy photos



## Damage Control

### MMC(SS) Alkire

According to MRC 6641/103 R-1, the Firefighter's Ensemble (FFE) consists of Fire Protective Gear (FPG) or Firefighter's Coverall, Firefighter's Hood, and Firefighter's Gloves. The Firefighter's coverall has a black, non-removable liner and the Fire Protective Gear has a liner that can be removed and cleaned independently of the brown outer shell. I have seen a lot of Fire Protective Gear stowed on hangers with the gloves and hood stowed in the SCBA lockers. Since the FFE includes the hood and gloves, they should be stowed with the FPG instead of in the SCBA lockers. The FFE should also be stowed in an ensemble bag (NSN 8460-00-606-8366). The MRC specifically spells out how to inspect and stow FFEs. This maintenance is supposed to be completed after each use, which is important because the FFE is the protective clothing preventing the hose teams from getting burned in a fire. In order to complete the maintenance, the FFEs must be stowed in accordance with the MRC. Just as you would perform the inventory maintenance on the tool roll, band-it kit, or material bag after someone breaks the tamper seal on them, this maintenance should be accomplished any time the FFEs are worn. If you are not stowing the FFE in accordance with the procedure, the maintenance isn't complete and should not be signed off as if it were. For more information on the care and repair of FFEs, look in NSTM Chapter 77, Section 4.2.



**Ensemble Bag**



## **ELECTRICAL**

### **ETC(SS) Kingsley**

There are some Virginia class boats that do not have the silicone rubber molded shore power joy covers to prevent water intrusion into connected shore power joy topside. This cover manufactured by Midsun Group Inc. fixes the problem which has led to catastrophic failures due to water intrusion into topside shore power connections. They can be ordered using temporary NIIN (NICN 1H 5340 LL-H98-6274).



**VIRGINIA CLASS COVER (MFG DWG # 236-00-01)**



## Submarine Deck

FTC(SS) Macon

Due to the recent questions, and the lanyards that I'm finding in the fleet, it is necessary to reiterate my first FLASH article about safety lanyards. Also, NSN 4240-01-611-7538 has been assigned to the working lanyards in accordance with Naval Message 141557ZNOV12.

There are a few boats in the fleet that have struggled with getting new safety lanyards onboard. I suspect that this is true for most of you out there. Although there is an NSN, ordering the lanyards through supply will not get you the correct item that you are required to use onboard. The following excerpt is taken from Naval Message 161233ZDEC11.

**D. SAFETY LANYARD (SURFACE SHIP AND SUBMARINES): THIS LANYARD IS A SINGLE LEGGED ROPE TYPE WITH A DYNABRAKE. THE LENGTH OF THE LANYARD SHALL BE NO GREATER THAN 6 FEET. THE DYNABRAKE SHALL BE COVERED BY A NYLON COVERING. PLASTIC COVERING OVER THE DYNABRAKE IS NOT AUTHORIZED**

1. NSN 4240-00-022-2521: MINE SAFETY APPLIANCE PART NUMBER 10119236. MINE SAFETY APPLIANCE PART NUMBER 501195 IS STILL AUTHORIZED BUT CANNOT BE REQUISITIONED.

**E. WORKING LANYARDS (SURFACE SHIPS AND SUBMARINES): THIS LANYARD IS A SINGLE LEGGED ROPE TYPE WITH NO DYNABRAKE. THE LENGTH OF THE LANYARD SHALL BE 6 FEET.**

1. NSN 4240-01-611-7538: ANY ROPE LANYARD THAT MEETS COMMERICAL STANDARD ANSI Z359.1 OR Z359.3 AND THE CRITERIA IN PARAGRAPH E IS ACCEPTABLE. KNOWN ACCEPTABLE WORKING LANYARDS ARE MINE SAFETY APPLIANCE PART NUMBER 505002 AND DBI/SALA PART NUMBER 1232354. WORKING LANYARDS MADE OF WEBBING ARE NOT ACCEPTABLE.

2. FURTHER INFORMATION ON FALL PROTECTION EQUIPMENT AND PROCEDURES CAN BE FOUND IN NAVAL SHIPS TECHNICAL MANUAL CHAPTER 077 AND ON THE WEB SITE [WWW.DCFPNAVYMIL.ORG](http://WWW.DCFPNAVYMIL.ORG).

SUBMARINES SHALL USE ALLOWANCE EQUIPAGE LISTS 2-330023055-57.



Below is the picture of the correct type for submarine use. You will need to call Mine Safety Appliance (MSA) at 1-800-672-2222 directly to open purchase the lanyards that you need. This method will ensure you get the correct item.

The Dyna-Brake Shock Absorbing Safety Lanyard, NSN 4240-00-022-2521 is no longer available using this NSN. It must be obtained directly from MSA using Part Number 10119236. MSA part number 501195 is still authorized but cannot be requisitioned.



These lanyards are a single-legged rope type with no dyna-brake and shall be 6 feet in length. Working lanyards made of webbing are not authorized. Use NSN 4240-01-611-7538 to order.



**Working Lanyard**



# NAVOSH

**HMC(SS) Thomas**

## **RESPIRATORY PROTECTION**

Medical Evaluations: In accordance with article B0613 of OPNAVINST 5100.19E: Military personnel, who have been confirmed by the MDR as having no deployment limiting medical conditions, and with a current annual Physical Health Assessment (PHA), are qualified to wear any type of respiratory protection.

More information on NIOSH approved respirators such as Self-Contained Breathing Apparatus (SCBA) and Air Purified Respirators (APR) can be found at

<http://www.cdc.gov/niosh/npptl/topics/respirators/cel/default.html>

Therefore, make sure all hands onboard have current PHAs. Military personnel must have a current PHA to find them "Fit for Full Duty" which qualifies them to wear a respirator. If you have personnel at your command with an expired PHA, they're not fit for full duty and should not be on the watchbill nor working on the boat. Take a look at your PHA due list. Are any of those members on the watchbill? And if so, are they responders in the event of a fire? If so, they might possibly need to wear an SCBA without being found medically fit to do so.

See the below message for more information. The only exception applies to personnel that are undergoing shore firefighting training. Everyone else needs to have a current PHA.



UNCLASSIFIED//

ATTENTION INVITED TO

ROUTINE

R 042108Z APR 12 PSN 240249K21

FM CNO WASHINGTON DC

TO NAVADMIN

ZEN//OU=DOD/OU=NAVY/OU=ADDRESS LISTS (UC)/CN=AL NAVADMIN (UC)

INFO CNO WASHINGTON DC

BT

UNCLAS

QQQQ

SUBJ: CLARIFICATION OF RESPIRATOR EXAMINATIONS FOR ACTIVE DUTY SERVICE MEMBERS UNCLASSIFIED/ PASS TO ALL OFFICE CODES:

FM CNO WASHINGTON DC

TO NAVADMIN

UNCLAS/N06000//

NAVADMIN 116/12

MSGID/GENADMIN/CNO WASHINGTON DC/DNS/FEB//

SUBJ: CLARIFICATION OF RESPIRATOR EXAMINATIONS FOR ACTIVE DUTY SERVICE MEMBERS//

REF/A/DOC/NMCPHC/JUL2011/

REF/B/DOC/OPNAV/21JUL2011/

REF/C/DOC/SECNAV/1DEC2009/

REF/D/DOC/OPNAV/12JAN2009/

REF/E/DOC/DOD/3JAN2006/

REF/F/DOC/OPNAV/30MAY 2007/

NARR/REF A IS NMCPHC-TM OM 6260 MEDICAL SURVEILLANCE PROCEDURES MANUAL AND MEDICAL MATRIX (EDITION 11). REF B IS OPNAVINST 5100.23 G NAVY SAFETY AND OCCUPATIONAL HEALTH PROGRAM MANUAL. REF C IS SECNAVINST 6120.3, PERIODIC HEALTH ASSESSMENT FOR INDIVIDUAL MEDICAL READINESS. REF D IS OPNAVINST 6100.3, DEPLOYMENT HEALTH ASSESSMENT PROCESS. REF E IS DOD INSTRUCTION 6025.19, INDIVIDUAL MEDICAL READINESS. REF F IS OPNAVINST 5100.19E, NAVY SAFETY AND OCCUPATIONAL HEALTH PROGRAM MANUAL FOR FORCES AFLOAT.//

RMKS/1. PER REFS A AND B, MILITARY PERSONNEL, WHO HAVE BEEN CONFIRMED BY THEIR REGION OR ACTIVITY AS "FIT FOR FULL DUTY" BASED ON THEIR CURRENT PERIODIC MILITARY PHYSICALS (MANUAL OF THE MEDICAL DEPARTMENT (P-117), AND THEIR ANNUAL PREVENTIVE HEALTH ASSESSMENT (OPNAVINST 6120.3)) ARE CONSIDERED QUALIFIED TO WEAR ANY TYPE OF RESPIRATORY PROTECTION. SHIPBOARD PERSONNEL UNDERGOING SHORE FIREFIGHTING TRAINING ARE NOT REQUIRED TO OBTAIN MEDICAL QUALIFICATION OR RESPIRATOR FIT TESTING FOR SELF-CONTAINED BREATHING APPARATUS (SCBA'S), INCLUDING THE OXYGEN BREATHING APPARATUS (OBA), PRIOR TO REPORTING FOR TRAINING. REFS C THROUGH F DESCRIBES THE PHA PROCESS AND DEFINITIONS OF FULLY MEDICALLY READY AND NO DEPLOYMENT-LIMITING CONDITIONS WHICH ARE REQUIRED TO BE "FIT FOR FULL DUTY."

2. THE POINT OF CONTACT FOR THIS MESSAGE IS CAPT KATHRYN JOHNSON AT THE BUREAU OF MEDICINE AND SURGERY. SHE MAY BE REACHED AT 202-762-3475 OR KATHRYN.JOHNSON2@MED.NAVY.MIL.

3. RELEASED BY VICE ADMIRAL J. M. BIRD, DIRECTOR, NAVY STAFF.// BT//

BT

#2648

NNNN

UNCLASSIFIED//



## **Naval Safety Center Submarine Division Scheduled 2<sup>nd</sup> QTR FY15 Assessment Plans**

The following commands are overdue and need to schedule their submarine safety assessments:

USS SAN FRANCISCO (SSN 711) – Due Sep 2014  
USS RHODE ISLAND (SSBN 740) – Due Aug 2014

Commands that have scheduled their submarine safety assessments:

USS JEFFERSON CITY (SSN 759)  
USS TEXAS (SSN 775)  
USS COLUMBUS (SSN 762)  
USS TUCSON (SSN 770)  
USS COLUMBIA (SSN 771)  
USS LOUISVILLE (SSN 724)  
USS CHEYENNE (SSN 723)

The safety assessments for the following commands will expire during the 3<sup>rd</sup> QTR FY15:

USS CHICAGO (SSN 721) – Due May 2015  
USS TOPEKA (SSN 754) – Due May 2015  
USS CONNECTICUT (SSN 22) – Due Jun 2015  
USS MICHIGAN (SSGN 727) – Due Jun 2015

Note: Safety assessment scheduling requires a request message sent to the Naval Safety Center from the ship or ISIC. You can find additional assessment information, request message template, and survey checklists at [www.public.navy.mil/comnavsafecen/](http://www.public.navy.mil/comnavsafecen/). For additional questions, please call the submarine division at 757-444-3520 ext. 7838.



## Advisories

<b><u>Effective COMNAVSAFECEN Submarine Safety Advisories</u></b>		
<b>2010</b>		
6-10	081904Z Dec 10	Asbestos Removal Protection
<b>2011</b>		
2-11	041532Z Mar 11	Heat Stress Meter Clarification
3-11	071634Z Mar 11	Heat Stress Survey Clarification
5-11	021648Z May 11	Reportable Mishap Clarification and Reporting
9-11	181607Z Nov 11	Afloat Fall Protection
<b>2012</b>		
3-12	231505Z Aug 12	Reporting Afloat Mishaps
4-12	291342Z Aug 12	Replacement of HMUG with NSTM 670
<b>2013</b>		
4-13	295572 Aug 13	Heat Stress Meter Certification
<b>2014</b>		
1-14	141511Z Jan 14	Effective COMNAVSAFECEN Afloat Safety Advisories for Surface Ships and Submarines
2-14	101655Z Feb 14	Naval Safety Supervisor Course Requirement Change
4-14	151837Z APR 14	Electrical Safety Advisory



## Contact Us

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<http://www.public.navy.mil/comnavsafecen/>

<https://www.csp.navy.smil.mil/NSC-SUB/>

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**for Class "A"**

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#### **Combat Systems/Deck**

FTC(SS) David Macon  
MMC(SS) Kamil Chayim

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