

*The Submarine Division of the Naval Safety Center Presents:*

# FLASH

## Factual Lines About Submarine Hazards

Apr 2004-Jun 2004

### Table of Contents

Page	Article Name
1	Table of Contents
2	Traffic Safety
3	Traffic Safety (cont'd) Pump It Up
4	Was That "Red and Yellow Kills a Fellow" or What? Torqued About TDU Torque Wrenches
5	Details, Details
6	E & E Adapter Support Bars Is It In the Water? Potable Water Systems and the Corpsman
7	Is It In the Water? Potable Water Systems and the Corpsman (cont'd)
8	To Have or To Have Not? That is the Question Farewell
9	Submarine Scuba Lockers Support (How to Get Yours)
10	Effective COMNAVSAFECEN Submarine Safety Advisories Points of Contact



### Route for Safeties Sake

CO	_____	ENG	_____	DCA	_____	3MC	_____	Divers	_____
XO	_____	CSO	_____	COB	_____	All CPOs	_____		_____
NAV	_____	SUPPO	_____	EDMC	_____	Ship's DCPO	_____		_____

# Traffic Safety

## FTCM (SS) Clements

COMNAVSAFECEN (ALSAFE 38/04) 011356Z JUL 04 announced a new tool for traffic safety. Thanks to the Army Safety Management Information System (ASMIS), an online risk planning tool for traffic safety is now available. ASMIS is an excellent way for LPOs, LCPOs, division officers, department heads, XO's, and COs to educate their Sailors about the risks they face on liberty and on the road. ASMIS users fill in the details of their planned trip and get a tailor-made risk analysis. Any user with a "navy.mil" e-mail address can access the system at <https://safety.army.mil/asmis1>. There is a simple, single-screen login process, which asks for your ".mil" address, name, age, command, location, and supervisor's e-mail address. You can also get to ASMIS via the Safety Center web site main page or by visiting <http://www.safetycenter.navy.mil/articles/asmis.htm>. ASMIS is easy to use, free, and another tool that leaders at all levels can use to reduce the number of PMV mishaps, our leading killer of Sailors and Marines.

- A 29-year-old E-5 took his eyes off the road and looked back behind his motorcycle. When he looked forward again, he was heading off the road. He crashed and suffered a shattered wrist and broken collarbone. *Shore Duty. Spain*
- A 27-year-old O-2 encountered an oncoming vehicle in his lane on a snowy road. The vehicles collided head on. He suffered fractured wrist and fractured fifth metacarpal. *SSN Connecticut*
- An 18-year-old E-4 turned right into the highway and hit a truck head on riding his motorcycle. He suffered permanent paralysis below the waist. He did not have a motorcycle driver's license endorsement nor had he taken any motorcycle safety classes. Had he not been wearing all required PPE (helmet, gloves, long pants, boots, motorcycle jacket) the outcome

could have been worse. *Shore duty South Carolina*

- A 21-year-old E-3 while driving his car with a BAC of 0.17 lost control of his car at high speed in a turn. Fortunately he used his seat belt and the air bags deployed and he suffered only minor injuries. *DDG Hawaii*
- Three Sailors were killed when the government bus they were riding in lost control and crossed the median into an oncoming semi truck. *DDG South Carolina*
- A 20-year-old E-2 crashed his car into a bridge support structure and died. *CVN Florida*
- A 24-year-old E-5 while riding his motorcycle at a high rate of speed (110ft-long skid marks) ran into the rear wheels of a tractor-trailer and died. *Shore duty California*
- A 25-year-old E-5 ran over loose gravel with his motorcycle, lost control and ran off the road. He hit a rock and sustained a fractured right hip socket. *Aviation squadron California*
- A 40-year-old E-7 while riding his new motorcycle, lost control and flipped the bike into a ditch. He had not completed the motorcycle safety course. He sustained deep puncture wounds to his leg. He was wearing all of the required PPE, which helped minimize the extent of his injuries. *SSN Hawaii*
- A 20-year-old E-3 riding on the back of a motorcycle without a helmet lost his hand hold and fell off. He was lucky to only receive minor cuts, abrasions, and bruises to his head. *SSN Hawaii*

- A 21-year-old E-4 riding at a motocross track landed his bike hard after a jump and suffered a broken tibia and fibula, fractured wrist, and broken jaw. He was wearing all required PPE for participating in a motocross event. It would have been much worse if he were not wearing motocross PPE. *SSBN Washington*
- A 31-year-old E-6 lost control of his motorcycle and suffered a compound fracture of a fibula. He was wearing all required PPE. *SSN Connecticut*
- A 23-year-old E-5 drove his car into a highway barrier at approximately 100 mph. The car burst into flames. The driver survived with burns to 20-30% his body. *SSN Virginia*
- A 22-year-old E-5 lost control of his motorcycle and left the road. He was wearing a helmet but still died. *SSN Hawaii*
- A 25-year-old E-3 driving his car with a BAC of 0.12 lost control and struck a utility pole. He suffered seven fractured ribs and a laceration requiring nine stitches to his forehead. *SSN Virginia*

The preceding was just a small sample of the private motor vehicle mishaps reported to the Safety Center this quarter.

## Pump It Up

### MMC (SS) Nixon

Did you know during the abandon ship of the USS Bonfish after their fire, they tried to deploy their life rafts, but couldn't because their CO<sub>2</sub> bottles were not fully charged. This put a serious kink into their



rescue efforts. Have you performed your life raft PMS properly? Have you inspected the raft for leaks, tears, and loose fittings? Is all required material available for use IAW AEL 2-820393001? MRC H-411/001 (R-1\*\*) requires that the CO<sub>2</sub> bottle be replaced five years after the hydrostatic date stamped on the neck of the bottle. This MRC is marked for scheduling purposes

only and should be done in conjunction with MRC H-411/001 (24M-2).

The CO<sub>2</sub> should also weigh between 3.21 and 3.29 pounds plus the tare weight (the weight of an empty bottle). The correct weight ensures that the CO<sub>2</sub> bottle is fully charged. The CO<sub>2</sub> bottle will fully inflate the raft only if it is fully charged. If inflation with the CO<sub>2</sub> bottle (activated by pulling on the inflation wire) does not occur, you can use the supplied hand pump to inflate the raft. You need to unroll the raft to get to the hand pump, attach the pump to the inflation holes, balance the raft in the water, and then begin to inflate the raft manually. Do you really think you would be able or want to inflate a life raft with only one hand pump while floating in the water and trying to hold onto the raft with the other hand? Don't wait until you need the rafts to check their operation. It could cost you your life or those of your shipmates.

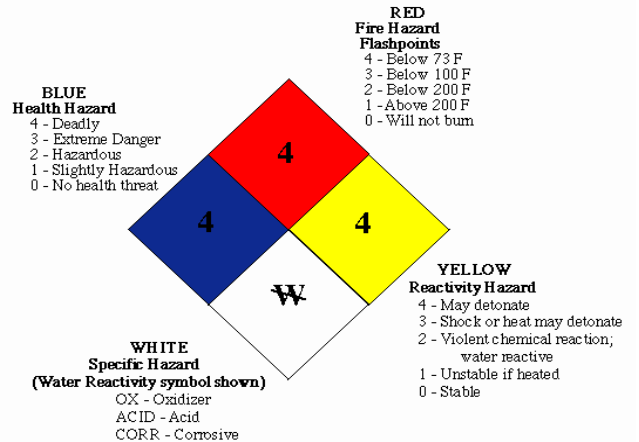
# Was That “Red and Yellow Kills a Fellow” or What?

LT Romano

Many years ago the National Fire Protection Association (NFPA) developed a labeling system for indicating the health, flammability, and reactivity hazards of chemicals. These NFPA labels provide hazard identification ratings (Danger, Warning, Caution, and Stable) for all hazardous material (HM) carried onboard our ships. The intent of the NFPA labeling system was to allow for an easy way to identify the specific hazards associated with HM. Unfortunately, this labeling system has also provided a continuing source of confusion for HM users. It is for this reason that OPNAVINST 5100.19D requires a much less confusing system of labeling HM lockers. Paragraph D1503A requires posting stowage locations with yellow and black caution signs (NSN 9905-01-342-4851 for 10" by 7" sign and 9905-01-342-4859 for 3" by 5" sign). Additionally, HM lockers containing flammable or combustible liquids are required to be fitted with caution signs delineating the specific hazard.

During recent safety surveys many of these “no longer required” NFPA labels have been found posted to HM lockers with incomplete information regarding the color-coded ratings. Ships that choose to use NFPA labels must still post OPNAVINST 5100.19D

caution signs and specific hazard warnings as well as complete the hazard identification rating information on the NFPA label. HM/HW coordinators who run effective HM programs frequently inspect end user HM lockers for compliance and consistency.



To minimize confusion and meet the intent of the OPNAVINST 5100.19D, I highly recommend these NFPA labels either contain all the required fields of information or be removed altogether.

## Torqued About TDU Torque Wrenches?

ETC (SS) White

During a recent west coast survey trip, several 688 and 726 class submarine's trash disposal units (TDUs) had mechanical safety discrepancies noted. The 688 class are using a dial-indicating 0-175 ft./lbs. -torque wrench for the operation and maintenance of the TDU, and the 726 class are using a 0-150 ft./lbs. -pointer-indicating torque wrench. MIP A-096/903 for the TDU calls for a 0-150 ft./lbs. pointer-indicating torque

wrench (SPMIG #01752). This particular torque wrench is the same as listed in the APL for a 726-class submarine. MIP A-096/903 is the same for both 688 and 726 classes. The APL and NSN for the 688 class is 730175100/5120-00-640-6364 respectively. The APL and NSN for the 726 class is T730145131/5120-00-247-2540. Currently there is no corrective action available for this discrepancy.



# Details, Details!!

## MMCS (SS) Morrow

You know, it's the small things that can cause the most heartache from time to time. Sometimes it is easy to lose site of the little items that "someone" has always taken care of. The following are items that can easily slip through the cracks if life on a submarine gets too hectic.

**Ducting Trash aka "What's wrapped around the scissors today?"** - In the last quarter, four submarines had miscellaneous plastic wrapped around the range guard scissor assembly in the ventilation ducting. Most of these items were meat or bread wrappers that were sucked up into the ducting over the griddle. These items then sat in the ducting and singed and melted, giving off who knows what kind of gasses. All of the boats were lucky enough to avoid the flashpoint of plastic in the ducting. Also, due to the placement of the plastic, the reliable operation of that actuator is questionable at best. This easily could have been avoided if the monthly clean and inspect of the scissor assembly had been accomplished correctly. The picture below is an example of another scissor assembly with the same amount of attention to detail.



### **EABs-Time to get rid of those two strap models.**

- The new "Ultra Lite" style EABs are without a doubt one of the better improvements the submarine community has made lately. Easier to wear and much easier to understand someone speaking, these EABs

were initially shipped with head harnesses with only two adjustable straps. Some of our shipmates were unable to get a tight face seal with these masks, therefore COMSUBLANT 021444Z MAY 03 (NOTAL) allowed units to use these **until five-strap harnesses were available**. There was a catch!! Boats were to report to their parent squadron the number of replacements required on board NO LATER THAN 10 MAY 03. The squadron would then report the number needed and shipping info NO LATER THAN 14 MAY 03. Then all free replacements would be shipped and dispersed to the boats. That was over a year ago, and there are still some boats with two adjustable strap harnesses in service. **Two-strap harnesses are no longer authorized for use.** NAVSEASYSKOM 0117482Z JUL 04 (NOTAL) and SUBPAC 070754Z JUL 04 (NOTAL) are the messages to reference for direction of removal from service. Squadrons still have some free replacements on hand, and even if they do not, the correct replacement is listed on the AEL 2-330023047. It may take three seconds less to adjust only two straps vice five, but the risk of losing a shipmate to smoke inhalation vs. the reward of three seconds saved is not a favorable return.

**Chem Lights** - On a submarine it seems like there are chem lights everywhere you look. Some of you may wonder what reference tells you where these lights are to be located. Well, here is the answer. An A&I was issued in May of 1998 N3200/T0105 that not only told the type of chem lights to be used, but listed the AELs the lights would be added to. To summarize:

**GREEN** - Required on EAB manifolds.

**RED** - Five required with each NFTI for marking injured personnel.

**ORANGE** - Attached to OBAs for identifying key firefighting personnel.

Remember, the listed expiration date applies only if the packaging is not torn to the point the stick is exposed to light making the stick unusable.

# E&E Adapter Support Bars

ETC (SS) White

A disturbing trend is propagating throughout the fleet. IAW Joint Fleet Maintenance Manual Vol. 5, Rev. A, para.7.3.1, all weight lifting or weight supporting gear shall be periodically weight tested by an authorized weight testing facility. Personnel injuries occur in the fleet due to improper use of weight lifting gear or gear in such poor condition that a mishap is inevitable. The Type 18 and Type 8B electrical and electronics (E&E) adapter support bars are considered "weight handling" gear.

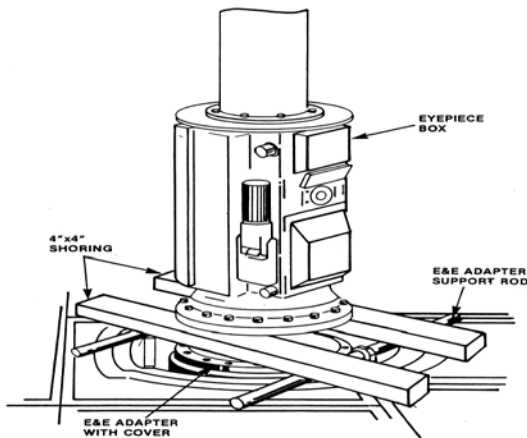


Figure 8-5. E&E Adapter and Eyepiece Box, Well Installation/Removal Positioning

Although not considered "weight lifting" gear, the Type 18 and Type 8B E&E adapter support bars support weight that is about the equivalent of a small car, therefore the bars and associated equipment require periodic weight testing. The periodicity of these tests is 48 months and the requirements can be found in the Type 18 Periscope Tech Manual (NAVSEA 0924-LP-065-3010) and called out in Appendix C of COMSUBLANT Tech Note 02-00.

The bars are not the only items that are weight tested. When a shackle is weight tested the locking pin that screws into the shackle is weight tested along with it insuring the integrity of the shackle to support an object at its designed weight handling specifications. E&E adapter support bars flex when the weight is applied to them. That force is transferred to the E&E adapter support bar eyes (better known as "dog-ears") and the bolts that attach the dog-ears to the E&E adapter as well. Periodic weight testing is required for these also. To date, there have been no mishaps involving the failure of the support bars. However, to maintain this record we need to be vigilant in ensuring the weight tests are accomplished.

## Is It In The Water? Potable Water Systems and the Corpsman

ETCS (SS) Monsam

Recent discoveries from the many safety surveys conducted in the last three months indicate a downward trend regarding potable water and associated systems. Although many submarine IDCs are doing a good job, almost all IDCs can improve their

programs. Probably the single most distressing attribute discovered is that no bacteriological testing has been taking place. Although this is not a common deficiency, it has been noted on several occasions over



*"Your water should be along shortly. Your waiter just logged onto 'Water.com' to see how to prepare it."*

the past three months. Every MDR knows that testing is required weekly IAW COMNAVSUBFORINST 6000.2A. The bottom line is that it has to be tested weekly and the results should be documented and routed through the chain of command. For commanding officers, if you are not seeing this report, you do not know if your water is being tested and the crew is safe from tainted water.

Other issues pertaining to potable water, though not as potentially hazardous, can cause serious problems and might lead to contaminating your ship's potable water system. All potable water associated equipment and systems are required to be inspected weekly per art. 6.2.1 G of CNSFINST 6000.2A. When completed, the best place to document completion is in the weekly sanitation report, which is routed to the CO. This weekly inspection includes checking the hose storage locker to ensure that the hoses are clean, in good condition, colored blue, and that the hoses are stowed properly with the ends capped or coupled. Potable water risers, hose ends caps, and wrenches are painted dark blue. Additional checks include the hose sanitation instructions are posted in the vicinity of the locker; the locker locked and clearly labeled "POTABLE WATER HOSE ONLY".

The potable water fill connection is required to be conspicuously marked with a warning plate stating "POTABLE WATER ONLY" in one-inch red letters IAW NSTM 533 para 533-2.1.2 and NAVMED P5010 para 6-

19.2. Also ensure the fill connection cap is painted dark blue and is tethered to the connection. Areas that are consistently missed are the potable water temporary hose connections located in the crew's head, laundry space and the CO's head. These connections require signs that state "CAUTION DISCONNECT HOSE WHEN NOT IN USE" in one-inch high red letters. There is also a requirement that any sinks and faucets with hose threads equipped must have a vacuum breakers installed to prevent any back flow into the potable water system.

There remains a big problem with calcium hypochlorite (HTH). This HM is highly corrosive and extremely volatile. Proper stowage of this HM is very important and should not be taken lightly. The box is required to be stowed in a vented locker or medical instrument box that has three 1/4-inch holes drilled into the bottom. The box should be in a location that will not come in contact with paint, grease, oils, solvents, or combustible materials and where the temperature will not exceed 100 degrees Fahrenheit. The locker is required to be painted white with a distinctive warning label that states "HAZARDOUS MATERIAL - CALCIUM HYPOCHLORITE" in red letters. This locker should be checked weekly during your potable water system inspection and inspected monthly IAW CNSFINST 6000.2A art 6.2.2.D. Keep in mind that the correct number of bottles onboard are nine for SSN, twelve for SSBN, and that they are not expired or will expire during your next underway period. HTH is now Type I HM and no longer can be extended. Too many ships have expired chemicals or insufficient quantities. The bottles should be stowed in sealed plastic bags in a locker that is clean and free of corrosion.

Ensuring that your potable water and associated systems are properly taken care of could prevent contamination of the crew and many hours of unnecessary work.

I would like to thank all submarine IDCs for their efforts in taking care of the crew. Your job is vitally important and has unlimited responsibilities.

# ***To Have or Not to Have? That is the Question!***

## **MMC (SS) Shull**

On several recent surveys, I found some submarines still have unauthorized LBT 1620 G/R floatation tactical vests. To make matters worse one submarine had the vests re-issued to them after initial turn-in!!

**Time to clear up the confusion.** Via message coordinated between Commander Fleet Forces Command (CFFC) N7/N9 and Commander Naval Sea Systems Command (NAVSEASYS COM) N4 the LBT 1620 G/R floatation tactical vest IAW message COMFLTFORCOM 251951Z FEB 03 (NOTAL) requests NAVSEA direct Naval Sea Logistics Center (NAVSEALOGCEN) to remove the tactical vest load (NICN 1HS 0000-II-CQA-6963 and NSNS 1HS 1005-01-474-5157 and 1HS 100501-474-5159) on the physical security AEL 2-320024503, columns six (6) and seven (7) for **all submarines**. NAVSEA is to distribute the tactical vests returned to inventory by

Commander Submarine Force (CSF), after appropriate conditional assessment, to other fleet end users. Based on the unique mission requirements for solo topside watchstanders on submarines this justifies the release from the use of LBT 1620 tactical vest. This is primarily due to the fact that this tactical vest is a non-self righting vest and is acceptable only for applications where it is likely that supervised watchstanders will be involved.

CSF will be providing to CFFC a desired suitable replacement tactical vest. Upon receiving UL/USCG certification, CFFC will forward the requirement to NAVSEA via separate correspondence for inclusion in future updates/funding to the force protection AEL. What does this mean to submarines? **If you have them, get rid of them!** Turn them in as previously required IAW COMSUBLANT 190905Z NOV 02 (NOTAL) and COMSUBPAC 112309Z DEC 02 (NOTAL).

## ***Farewell***

### **Code 38**

We, at the Naval Safety Center, must bid a fond "adieu" to not one but two of our own. EMC (SS/SW) Greg Seplak has been serving as electrical/electronic and mechanical submarine safety analyst, operational risk management facilitator, and code 30 terminal area security officer. Mr. Seplak is currently working for Northrop Grumman as a supervisor of non-nuclear testing. Finally, a place where there is no need to "Nuke" it out. We extend our best wishes to Mr. Seplak and his family.

HMCS (SS/SW/FMF) Rich Flannery has been serving as medical department submarine safety analyst, operational risk management facilitator, and FLASH editor (Jul 03-Mar 04). Mr. Flannery is

currently working for Battelle as a chemical, biological, radiological, nuclear, & explosive (CBRNE) medical specialist. "I'm just here for the beer!" A phrase you gave new meaning to. We extend our best wishes to Mr. Flannery and his family.

"It takes a lot of courage to release the familiar and seemingly secure, to embrace the new. But there is no real security in what is no longer meaningful. There is more security in the adventurous and exciting, for in movement there is life, and in change there is power."

**Fair winds and following seas shipmates**



# **Submarine Scuba Lockers Support (How to Get Yours)**

**MMC (SS/DV) Gest**

Recent results of Diving Operation Readiness Assessments (DORA) and Naval Safety Center (NSC) diving safety surveys have indicated a downward trend in the performance of dive locker administration and diving operations by ships force scuba divers in the submarine community. To halt the downward trend, NSC divers, with Type Commander's support, have developed a two-day diving training session intended to standardize submarine scuba locker administrative programs and reinforce proper operational diving techniques. The Naval Safety Center is available to conduct training for all submarine scuba lockers in the Norfolk area through the months of August, and September 2004. Units in the Tidewater area can schedule training at the first available opportunity by contacting CWO2 Doug Fasseel, NSSC Norfolk at 757-485-6916, email: [douglas.fasseel@navy.mil](mailto:douglas.fasseel@navy.mil).

Training for units located in New London, CT will be conducted 30-31 Aug or 01-02 Sep 2004 at the Escape Training Facility at NAVSUBSCOL, Groton. Units can schedule training during one of the two sessions available by contacting LT Daniel Corey, CSG2 at 860-694-3205, email: [coreyd@csg2.navy.mil](mailto:coreyd@csg2.navy.mil). Each command

must provide two complete sets of scuba gear for use and maintenance demonstrations during training.

This is a required one-time training per COMSUBLANT 221404Z JUL 04 for the evolution intended to improve submarine scuba locker practices and operations throughout the Atlantic Fleet. Each diver will complete re-qualification dives IAW NAVPERS 15560D (Naval Military Personnel Manual) Article 1220-100 (THE DIVER/EOD/SEAL/ UCT PROGRAM) during the training. Commanding officers or a designated representative are invited and encouraged to attend any or all of the training provided and provide feedback directly to CSL point of contact.

If the training dates conflict with unit specific schedules, contact your area point of contact and alternate dates will be scheduled. Units not in port during this time will be contacted individually for alternate dates.

CSL point of contact is CWO3 Dan Mikulski, Force Diving Officer 757-836-1289, email: [daniel.mikulski@navy.mil](mailto:daniel.mikulski@navy.mil).

# Effective COMNAVSAFECEN Submarine Safety Advisories

17-00          201959Z DEC 00          Contract Liberty Boat (Water Taxi) Safety

1-04          051505Z JAN 04          Effective COMNAVSAFECEN Afloat Safety Advisories for Surface Ships and Submarines

To download you must be on a .mil domain terminal. Go to our secure web site by selecting the [DoD menu](#) link. Once you are on the secure site select the [Afloat Messages](#) link and then select the [Submarine effective advisories](#) link.

## 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 are 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](mailto:submarines@safetycenter.navy.mil)  
[www.safetycenter.navy.mil](http://www.safetycenter.navy.mil)

**FLASH Editor:** ETC(SS) Bryan White          Ext. 7202  
E-Mail: [bryan.c.white@navy.mil](mailto:bryan.c.white@navy.mil)

**Afloat Directorate Head:** CDR Ritch Martel          Ext. 7127  
E-Mail: [richard.martel@navy.mil](mailto:richard.martel@navy.mil)

**Commander Naval Safety Center**  
RADM R. E. Brooks          Ext. 7000

## THE SURVEYORS

### Safety Officer/General Departmental

LT Vic Romano          Ext. 7201  
[victor.romano@navy.mil](mailto:victor.romano@navy.mil)

### DC/Mechanical/Electrical/Electronic

MMCS(SS) Bob Morrow          Ext. 7073  
[robert.e.morrow@navy.mil](mailto:robert.e.morrow@navy.mil)

ETC(SS) Bryan White          Ext. 7202  
[bryan.c.white@navy.mil](mailto:bryan.c.white@navy.mil)

### Medical

ETCS(SS) Pete Monsam          Ext. 7098  
[peter.monsam@navy.mil](mailto:peter.monsam@navy.mil)

### Combat Systems/Deck/Divers

FTCM(SS) Chris Clements          Ext. 7099  
[chris.clements@navy.mil](mailto:chris.clements@navy.mil)

MMC(SS) Ed Nixon          Ext. 7104  
[edwin.nixson@navy.mil](mailto:edwin.nixson@navy.mil)

MMC(SS) Jeff Shull          Ext. 7091  
[jeffery.shull@navy.mil](mailto:jeffery.shull@navy.mil)

Diver Group          Ext. 7606  
[SAFE-Divesalvage@navy.mil](mailto:SAFE-Divesalvage@navy.mil)