

All On Board



Submarine Watchstation Qualification Issue

Fleet Training

April 2011 Vol. 2

Welcome

Welcome to the Watchstation Qualification edition of *All On Board*, the quarterly newsletter from SOBT. Our last newsletter was in support of ship qualifications, and the SOBT products available to support that effort. Concurrently with ship's quals and after completion of getting your dolphins, is attainment of watchstation qualification and maintenance, as well as proficiency of watch standing skills. SOBT has a host of training products to help you as a watch stander.

SOBT has developed many training products that not only provide foundational knowledge, but also emulate equipment operation to help you establish and maintain proficiency at your watchstation. Examples include fathometer operations (AN/BQN-17, AN/BQN-17A, UQN-1, and AN/BSY-1) (DODUSNSLCSOBT_05040), starting a turbine generator on a SSN 688 Class (DODUSNSLCSOBT_04116), operation of the AN/BPS-15H Radar set (DODUSNSLCSOBT_04029), and the SSN 688 Class VLS Pressure/Vent system (DODUSNSLCSOBT_98100). SubSkillsNet and EngSkillsNet equipment simulators are also excellent tools to use during Watchstation qualification checkout and boards. Each article in this edition of the newsletter focuses on the various watchstations, with the details to get you started at your watchstation qualification and proficiency. Use the search feature at the SOBT page on your ship's LAN to find the product to meet your training needs or go online to the SOBT catalog at: <https://www.netc.navy.mil/sobt/>

[web/index.html](http://www.netc.navy.mil/sobt/web/index.html). If you can't find a product to support your watchstation, please contact SOBT to investigate filling that need through the introduction of a new product to the catalog. I encourage everyone to review this newsletter to reveal how you can give your best toward being a highly knowledgeable officer or enlisted watch stander on your boat!

Commanding Officer
Submarine Learning Center

Director's Note

Simulated Watchstation Qual Checkouts

These newsletters deal primarily with how to use the SOBT products to help complete your qualification studies, but some of these products are also great for conducting the actual qualification checkout. Put yourself in the scenario where you are giving a watchstation qualification checkout on the diesel engine, or the sonar system, radar, or fire control. You can ask the individual what his response would be to a casualty, or how

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the system behaves in certain situations. The correct way for this checkout would be to use the actual equipment. Most times using the equipment for the checkout is not practical because of the operational situation, or would risk damage to the equipment. Listening to the Sailor explain how they would do something is less desirable, as it shows the knowledge but not necessarily the skill. This is where you can use one of the SOBT simulators, such as SubSkillsNet, EngSkillsNet, CBOT, SBOT, APLT, or Shipboard-WLCTT to have him prove to you how he can operate that system. You can have the Sailor start up the diesel or track a contact. You can also put in a system malfunction to have the individual show how to react and recover from a malfunction. As the person providing the checkout, you want to know that the Sailor looking for your signature really does know his stuff and can man the watchstation fully qualified to do so. Use of the SOBT simulators for these checkouts will let you know if these non-qualified Sailors are ready to be qualified.

Let us know how you are using the simulators for training and checkouts so we can share with the fleet.

SOBT Director

Wardroom Training

As qualifying Junior Officers, you have it tough. You have to learn how your division operates, stand under instruction watches, go to night work meetings that make little sense to you, finish a battery charging line-up, figure out what a CAS-REP is, finish a zone inspection before the XO finds you, and the only person that cares about how late you stay completing all these tasks is your loved one at home with a cold dinner. Somewhere in all of that, you need to get qualified.

Submarine On-Board Training was built specifically with you in mind. You need one stop shopping with current and easy to understand information. Each boat is different for a qualifying JO; you may have arrived on a boat during an extended ship-

yard stay or to the boat with the highest operational tempo in the fleet. Sometimes, you may not find a chance to get hands on experience in every aspect of your qualifications. SOBT products help bridge that gap.

SOBT has a product linked right to your Ship's website for skills directly related to surfaced and submerged officer watch stations, as well as in port duty. Besides engineering watches, you are expected to learn contact management early in your qualifications. Products such as Mental TMA Techniques, Radar Navigation and Contact Management, PC Periscope and Contact Coordinator will help you learn essential contact management techniques.

You will also need to learn how to drive the submarine on the surface, and surfaced under instruction watches are not always easy to come by. Although time spent in the bridge can never be replaced, SOBT products are a valuable tool in qualifying Surfaced OOD. Some of these products are Surfaced Ship Handling, piloting briefs for over 30 frequented ports, and Rules of the Road. Also, you will probably be qualifying Duty Officer around this time as well and SOBT is right there with you. Take a look at the Duty Officer SOBT product to find out how to conduct daily routines, control maintenance, and handle common in port operations.

Finally, it is time to qualify Submerged OOD and get your fish. SOBT is there to help. Besides the SOBT product Submerged OOD, there are other helpful products like Submerged Ship Handling, OOD Navigation OPORD 2000, ASW tracking, and Approach and Attach Training. If your CO asks you how STDA helps the OOD carryout the Ship's mission and you give him a "deer-in-the-headlights" look, check out our STDA product. When you get bored with that, just search the catalog for things like "JO." You will find things like JO Rules of Engagement, JO Sonar, and JO Missile. Other helpful products are Voice Communications, Tomahawk Strike Planning, AN/BQQ-10 Operations for the OOD, and many more. Also, do

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not forget that there is a SOBT product for every system onboard the ship.

SOBT is a key component to getting your Gold Dolphins in addition to standing those important under instruction watches and getting your head in the books. Take a look at the products above on your Ship's website. SOBT is constantly being updated, and we come to your boat once a year to make sure you have everything you need. If you cannot find what you need, find your boat's SOBT coordinator.

SLC N71, Officer Training
Wardroom Training

Sonar Systems

This article will cover SOBT products that can be used for Sonar watch station qualifications.

DODUSNSLCSOBT_04110, SS Acoustic Signal Recognition (Sonar) 6.1 provides detailed training in acoustic signal recognition including acoustic theory, sound propagation, lofargrams, some active Sonars, torpedoes, and submarine contacts.

DODUSNSLCSOBT_07040, SS AN/BQQ-10 Sonar Supervisor covers many of the knowledge requirements for qualification as a Sonar supervisor such as duties and responsibilities, required manning, tactical aspects of sonar search, and detection and classification scenarios.

DODUSNSLCSOBT_07046, SSN 688 AN/BQN-17 Fathometer Operator provides knowledge on specific fathometer operations including the displays, controls and indicators, modes of operation, chart recorder interpretation, and emergency situations.

DODUSNSLCSOBT_01072, SS AN/WLR-9 is a seven lesson self-paced course designed for personnel operating and employing the AN/WLR-9.

DODUSNSLCSOBT_07047, SS AN/BQQ-10 Active Intercept and Ranging introduces the Sonar operator to the AI&R system. The topics cover components and APB 04/06 employment.

DODUSNSLCSOBT_00039, SSN 688I AN/BSY-1 Bottom Sounder Operator is a self-paced course designed for junior enlisted personnel beginning qualifications as an SSN 688I AN/BSY-1 Bottom Sounder Operator. Each lesson is designed to introduce the areas of responsibilities for this watchstation.

As always, we are looking for suggestions on updates for existing courses and ideas for new ones as well. Send me an email or give me a call with your ideas.

Sonar Systems Project Manager

MOB and Engineering Auxiliary Division Watchstation

The following is a list of SOBT courses that can be used to assist in meeting the qualification requirements for:

DODUSNSLCSOBT_95009 SS Lookout

Applicable to all classes of submarines. It covers duties and responsibilities, basic knowledge and practical factors, reports, and bridge equipment for qualifying the lookout watchstation.

DODUSNSLCSOBT_03195 SS Line Handling

Provides the basic information needed to prepare to be a qualified Linehandler. It covers the mooring system equipment and requirements, mooring line construction and maintenance, line handling commands and mooring arrangements. It also discusses topside and line handling safety.

DODUSNSLCSOBT_99022 SSN 688 AOW

Provides training to Submarine personnel in the basic systems and procedures required to qualify as Auxiliaryman of the Watch. Topics for proper watchstanding practices include duties and responsibilities, as well as log taking. This course also discusses the major components, purposes and procedures for major ship's systems operated and monitored by the Auxiliaryman of the Watch.

SOBT MHM&E/Safety/Seawolf Qual Program Manager



Weapons

SOBT has developed courses that will aid in the training and qualification of junior personnel. For those of us that work with the torpedoes, we have one new title: SSN Mini Weapons Launch Console Team Trainer (Mini-WLCTT) (DODUSNSLCSOBT_07079 Version 1.0) which has been released to the fleet.

The Mini-WLCTT is a simulator designed to provide training for journeyman and master level Weapons Launch Console operators. The Mini-WLCTT mimics the Weapons Launch Console for the 688, 688I, 21 and 774 Class Submarine. It is intended to be used as a Team Trainer that can have faults inserted at varying points, but can also be used by one individual, in a Freeplay mode, to become familiar with and practice the panel operations.

Note: Shipboard WLCTT was optimized for use ONLY in the COMPOSE 3.0.1 environment. Installation in any other environment will cause errors and Shipboard WLCTT will not function properly.

As always, one way to help the SOBT office with the development of its products and the quality of the training that is provided to the fleet is to comment on what is currently available. So if you have any feedback on the existing courses that are provided by SOBT, or if you would like to provide a topic for further consideration, please contact me.

TM Weapons/Force Protection Project Manager

SOBT Navigation News

We are approaching the end of updating another piloting product, and are working towards products being more relevant to what is actually being used in the Fleet. Changes are ongoing in our rating, so as these changes occur we will continue to update the products as necessary.

SS Quartermaster of the Watch Version 1.0 (DODUSNSLCSOBT_08007) has been out in the Fleet for over a year. I surmise everyone likes the product because we have received no feedback on

any need for improvement. This product was designed to aid junior personnel in learning the basics for standing QMOW.

I have been working with the Assistant Navigators at the Submarine Learning Center to get the most pertinent information into all of our products. This is a never ending process, but with your support and feedback we will continue to meet the needs of the Navy and our future Navigators and Assistant Navigators. I am always here to take your recommendations.

SOBT Navigation Project Manager

Fire Control

An underutilized watch-station training tool is DODUSNSLCSOBT_02018, SS ADCAP Post Launch Trainer, or APLT. This simulator provides you with several selectable scenarios, selectable novice or advanced difficulty levels, and will then evaluate your execution of the scenario. If you ace it, great! If not, then you will know where you need to spend your time honing your skills. For the senior level Fire Control Technician - Challenge yourself to improve your ADCAP employment skills or provide feedback to SOBT for improving APLT's functionality/scenarios.

DODUSNSLCSOBT_04021, SS Combat Basic Operator Trainer, or CBOT simulator has the ability to simulate various TMA functions available to an operator on a tactical Fire Control System. CBOT allows an apprentice level student to learn the proper use of the system without impacting real time contacts. Both of these products are approved for installation and use on SUBLAN assets so you can evaluate yourself on watch!

Fire Control Systems Manager



On the Cover:

USS Pittsburgh (SSN-720) departing Bizerte Tunisia January 2009

Photo by Capt. Jeffrey Trussier



SSN 688 ENGSKILLSNET V3.5

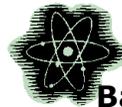
DODUSNSLCSOBT_04116

The following systems can be utilized for real time simulation to include stand alone, networked scenarios, startup, shutdown, normal operations, and casualty control:

System:

- ◆ 10,000 GPD Distilling Unit
- ◆ Auxiliary Seawater System
- ◆ Auxiliary Steam System
- ◆ Condensate System
- ◆ Diesel Generator System
- ◆ Electrical Distribution System
- ◆ Engine Room Fresh Water System
- ◆ Feed System
- ◆ Gland Seal and Gland Exhaust System
- ◆ High Pressure Air System
- ◆ High Pressure Drain System
- ◆ Low Pressure Drain System
- ◆ Main Engines, Reduction Gears, Shaft Line Components
- ◆ Main Seawater System
- ◆ Main Steam System
- ◆ Propulsion Lube Oil System
- ◆ R-114 Air Conditioning System
- ◆ Salinity Indicating and Temperature Monitoring
- ◆ Shaft Seal Water System

- ◆ Ship Service Hydraulics
- ◆ Ship Service Turbine Generators
- ◆ Steering and Diving Hydraulics
- ◆ Turbine Generator Lube Oil System
- ◆ Turbine Throttle Control, EPM, SPM and PPAP



Nuclear Training

Basic Engineering Qualification

The learning process continues long after the qualification process has ended. Continued training is an integral part of the nuclear community. Instead of cramming the week before ORSE to absorb the information that you have forgotten since the last ORSE, start preparing NOW. If you are prepared you will have no reason to sweat come game day. It is important to keep your knowledge base finely tuned as well as your operational skills to achieve a high state of readiness. SOBT is available to help with your Continued Education Training. By utilizing the SOBT BEQ products you can take your division or department back to the basics to build on that much needed theory and system knowledge to prepare for that upcoming inspection. In addition to your theory base you need to maintain your operational skills. ENGSKILLSNET is a real-time, engine room simulator that allows you to exercise the propulsion plant by performing specific procedures such as engine room startup and shutdown. This will build on your knowledge of casualty response by seeing the casualty happen in real time. Knock your next ORSE level of knowledge interview out of the park, dust off those SOBT courses that have not been used in a while and make yourself into the nuclear operator that you have always wanted to be.

BEQ/Nuclear Training Project Manager

Editor's Note: This is a reprint of the April 2010 edition of this newsletter. MMC Griffith has transferred and his relief has not yet reported aboard.



SWS Watchstation Qualification

SWS SOBT materials provide information to be used when preparing for SWS qualification. The materials can be easily used onboard or during off crew.

Nuclear Weapons Security Guard

(ICW-W001) Strategic Weapon System Overview VER 1.00

Missile Compartment Roving Patrol

(ICW-W001) Strategic Weapon System Overview VER 1.00

DODUSNSLCSOBT_05080 SSBN D5 Missile Tube Hydraulics VER 2.00

DODUSNSLCSOBT_05014 SSBN Indication, Control and Alarm System D5 Back-fit Differences

In-Port Fire Control Supervisor

(ICW-W006) Data Recording Subsystem (DRS) M240R Patrol Operations VER 1.00

Fire Control Supervisor

(ICW-W006) Data Recording Subsystem (DRS) M240R Patrol Operations VER 1.00

Navigation Center Watch

DODUSNSLCSOBT_05014 Inertial Navigation Principles VER 3.10

DODUSNSLCSOBT_00403 Correlation Velocity Sonar Principles VER 2.10

DODUSNSLCSOBT_06017 SSBN Strategic Navigation Center Watch VER 1.00

Navigation Center Supervisor

(ICW-N005) DODUSNSLCSOBT_03069 SS GPS AN/WRN-6 VER 2.10

NOTE: Any product listed above that is not listed in the SOBT catalog can be requested from the applicable SP-205 POC. Product numbers in brackets are SWS specific product numbers, where there are both SWS and SOBT product numbers - this is the same product and can be found in both the SWS and SOBT catalogs. You can find more information on SWS watchstation training in the most recent Trident Information Bulletin (TIB).

SOBT Program Manager





Simulators

SOBT simulators provide an opportunity to learn and sharpen watch standing skills. The following matrices list the applications and components of each simulator.

APLT AND CBOT COMPONENTS

DODUSNSLCSOBT_02018/DODUSNSLCSOBT_04021

The following components are available in APLT & CBOT:

Component	FCS	Description
APLT Version 14 (ADCAP POSTLAUNCH TRAINER)	BLK1C BYG-1	Supports weapons versions: 10.4.2 21.8.1 31.1.1 35.1.5 21.1.2
APLT Version 5.7 (ADCAP POSTLAUNCH TRAINER)	MK-1 BSY-1 MK-118	Supports weapons versions: 10.4.2 21.8.1 31.1.1 35.1.5 22.1.2
CBOT Version 14	TI-02	Limited TI-02 tracking capability

SBOT COMPONENTS

DODUSNSLCSOBT_06044/DODUSNSLCSOBT_06045

The following ARCI components are contained within the SBOT Suite. Specific component specific help can be accessed by clicking the component name.

Component	APB	Description
OEC	All	The Ocean Environment Console (OEC) delivers ocean dependent propagation (20LOGR, Raymode, ASTRAL) data and contact signature data (ATAS)
SAWS PBB	03/04	Sphere Array Workstation Broadband
OOD Trainer	03/04	A layered product atop of SAWS. The OOD student drives ownership using SubSkillsNet helms control to PD. Scoring is according to preset CO Standing Orders. Replay is available.
CEDAR	03/04	CEDAR function is available via INTERR on ARCI
TAWS PBB	03/04	Towed Array Workstation Passive Broadband
TAWS PNB	03/04	Towed Array Workstation Passive Narrowband
MSD	03	Multi Sensor Display
MAD	05	Multi Array Display



Simulators

The following AN/BQQ-5E components are available:

Component	Description
SAWS PBB	Sphere Array Broadband
OOD Trainer	A layered product atop of SAWS. The OOD drives ownership using SubSkillsNet helms control to PD. scoring is according to preset CO Standing Orders. This is a demo, no replay is available.
TAWS PBB	Towed Array Workstation Passive Broadband

SubSkillsNet 7.0 Applications

DODUSNSLCSOBT_05040

Application	Supported Equipment/Description
Radar	AN/BPS-15H
Fathometer	AN/BQN-17
	AN/BQN-17A
	AN/BQQ-10
	AN/UQN-4
GPS	AN/WRN-6
Inertial Navigators	ESGN
	RLGN
AIS	Furuno FA-150
	Sperry R-4
Periscopes	#1 Periscope
	#2 Periscope
CEP	Contact Evaluation Plot
HelmControls	Bridge Suitcase that can be utilized to maneuver the Ship.
PerfEval	Tool utilized to evaluate how the operators are performing during the scenarios.
Position Tool	RLGN SCDU
RTS	Run Time Subscript is the "instructor console" from where the scenario is run.
SUBIS	Submarine Imaging System
SurfCAT DX	The OOD view during the scenario.