

# All On Board

## Submarine Watchstation Qualifications Issue

### Fleet Training

April 2010 Vol. 2

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 (DODUSNSLCSOBT\_05040), starting a turbine generator (DODUSNSLCSOBT\_04116), operation of the Radar set (DODUSNSLCSOBT\_04029), and VLS Pressure/Vent system (DODUSNSLCSOBT\_98100). This is just a small sample of what is available to assist personnel in proficient watch standing. 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>. 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 watchstander on your boat!

Captain Kenneth A. Swan  
Commanding Officer  
Submarine Learning Center

### Director's Note

CW05 (sel) Chris Agers has departed as the SOBT Coordinator, we wish him luck at his new assignment in Washington D.C. I am ENS Shaun Douglas, and I am taking the helm here at SOBT. I am ex-enlisted with 12 years experience as a Submarine Auxiliaryman. I feel fortunate to be assigned to SLC/SOBT and look forward to producing the training products that are needed in our Fleet. I relied heavily on SOBT products during my tenure in the Navy to train my watchstanders and junior sailors in submarine and watchstation qualifications. I have seen SOBT go from just a bunch of CDs piled in a locker, to an easy to find, interactive train-

#### Inside this issue:

Officer Watchstanding	2
Lookout	2
Auxiliary	3
Navigation News	4
Sonar Systems	4
POOD	5
Nuclear Training	6
Simulation Trainers	6

Continued on Page 2



Continued from Page 1

ing aid. I highly recommend the use of SOBT products, not just because of where I am now, but because I have found them to be the go to training tool on board our submarines.

I look forward to hearing from anyone that wants an input into the SOBT products.

SOBT Coordinator

## Officer Watchstanding

Entering your name in the Qualified Watchstanders Binder is one of the best feelings that one can achieve on board a submarine, short of earning one's Dolphins, and the road to success can be difficult. The SOBT team has developed a number of products that can make that journey much easier. The SSN Basic Submarine Qualification (BSQ), SSBN Basic Engineering Qualification (BEQ), SSBN BSQ, and SSN 774 BEQ product line offers individual training, on a number of ships systems, to newly reporting personnel. This line of products discusses hydraulic systems, mechanical systems, electrical systems, nuclear systems, communications and fluid systems. While not required for qualifications these products provide junior officers an ideal resource to satisfactorily complete many knowledge checkouts of these ship-wide systems.

Watchstation focused products, such as SSN 774 OOD Surfaced Submarine Ship Handling (DODUSNSLCSOBT\_05042) explore those skills exhibited by an experienced ship driver. Furthermore, SS Rules of the Nautical Road (DODUSNSLCSOBT\_03717) takes a comprehensive look at one of the most challenging topics for any mariner and a required portion to every Officer's qualifications.

Officer Training  
Submarine Learning Center



## Fire Control

An under utilized watchstation training tool is the Combat Basic Operator Trainer, or CBOT. This simulator has the ability to simulate most of the TMA and Weapon functions that are 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. For the senior level Fire Control Technician - challenge yourself to improve your ADCAP employment skills with the ADCAP Post Launch Trainer, or APLT. The APLT will present you with several scenarios, at selectable difficulty levels, and then evaluate your execution. If you ace it, great! If not, then you will know where you need to spend your time honing your skills.

Send me a line with your thoughts to make CBOT and APLT more robust. Both of these products are approved for installation and use on SUBLAN assets so you can evaluate yourself on watch.

Fire Control Systems Manager

## Look Out

SS LOOKOUT DODUSNSLCSOBT\_95009 is a very helpful tool for a newly qualifying Lookout watchstander. It is an interactive course that explains the lookout watchstation, how to stand the watch, and what to expect while standing the watch. This course is designed to help establish a self-paced qualification program for the lookout watchstation. It also provides a list of all the references needed to read and study in order to qualify for this watch.

The lookout course has seven lessons; six of these lessons provide a pretest to help the learner understand where his knowledge stands, as well as a post test to challenge the user after each lesson. Each lesson has objectives to help the user attain the knowledge he will need not only to pass the post test, but to help improve their overall knowledge of the watchstation. Lesson 1 is the duties

Continued on Page 3



Continued from Page 2

and responsibilities of the watchstander and describes proper watch standing procedures, types of reports that are required and the frequency that they are reported. Lesson 1 also lists the equipment necessary to stand the watch. Lesson 2 is basic knowledge of navigation rules, aids, and sound signals. Lesson 3 is practical factors; describes how to conduct visual sky and surface searches, night searches, and the process for identifying a visual contact. Lesson 4 explains when and how to make proper reports and the frequency the reports are made. Lesson 5 is on equipment and describes bridge equipment, including the use of MC systems and the sound powered phones. Lesson 6 is on emergency procedures and proper reports during a man overboard incident.

This product is designed to help users attain the basic knowledge of the lookout watchstation. As long as we continue to receive great and much appreciated feedback from the fleet, we can continue to produce effective and helpful training for the future. Please feel free to contact us if you have any ideas on a new product or how to improve a current one.

### **MOB/Engineering Auxiliary**

The following is a list of SOBT courses that can be used to assist in meeting watchstation qualification requirements.

#### **The Craftsman Fundamental Course DODUSNSLCSOBT\_03158**

This course will prepare all personnel on submarines for Craftsman Fundamentals qualification by providing the basics of the Quality Assurance (QA) program. This includes the Quality assurance process, material and in process control, as well as tools used by the Craftsman.

#### **SS Quality Assurance Inspector DODUSNSLCSOBT\_05011**

This course presents an overview of the Quality Assurance Inspector (QAI) duties and responsibilities. It will also provide an overview of the QA package and its review process. The Student will be presented three scenarios that deal with a QA package. The training presents scenarios to the learner that requires decisions on whether to approve or disapprove a package as the work progresses.

#### **SS Line Handling DODUSNSLCSOBT\_03195**

This training course provides the learner with the basic information needed in preparation to become a qualified Linehandler. It covers the mooring system equipment, requirements, mooring line construction and maintenance, line handling commands and mooring arrangements. This course also discusses topside and line handling safety, and is a good review prior to line handling evolutions when it has been a while since the last one.

#### **SSN 688 AOW DODUSNSLCSOBT\_99022**

This course is designed to provide education and training to Submarine personnel in the basic systems and procedures required to qualify as Auxiliaryman of the Watch.

Topics include proper watchstanding practices, covering the duties and responsibilities of the watchstation, as well as Log Taking. It also discusses the major components, purposes and procedures for major ship's systems operated and monitored by the Auxiliaryman of the Watch.

MHM&E/Safety/Seawolf Qual Program

### **Weapons**

Fellow Torpedomen,

In this article, I will discuss some of the watch qualification products that are available from the SOBT Office. Two of the courses that we provide deal with the Torpedo Room Watch (TRW) qualifi-

Continued on Page 4



Continued from Page 3

cation process. Each is geared towards different classes of Submarines, the 688 class (DODUSNSLCSOBT\_96080) and the 726 class (DODUSNSLCSOBT\_03133).

The topics covered are the duties and responsibilities of the TRW, the knowledge requirements of the weapons and weapons systems, the knowledge of the Torpedo Room equipment, practical factors and Torpedo Room rigging and the appropriate Weapons Launch Console (WLC) operations. The courses are broken down so that they correspond to the signatures on the TRW qualification card. Even though our products provide needed data and information to the learner, it is not a replacement to the qualification process. These SOBT products are meant to assist the user with his quals. The graphics and animations that are used greatly enhance the learning experience. These courses, coupled with a hands-on approach to learning, will add to the knowledge and experience of our junior Sailors.

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 via email at [luke.leblanc@navy.mil](mailto:luke.leblanc@navy.mil) or by phone (860)694-5507 ext 18. Thank you for your time and have a great Navy Day!

TM Weapons/Force Protection

## SOBT Navigation News

Fellow Navigators-

Changes in the navigation rating are occurring at a steady pace. SOBT is working hard to continue to reflect these updates in our training products, as well as making the products more relevant to what is actually being used in the fleet.

## SS Advanced Navigation Version 3.00 DODUSNSLCSOBT\_02011

is in the final stages of development with an anticipated delivery to the Fleet in May 2010. Although the current version in the SOBT catalog has good information, it is being revised to meet the requirements of the Submarine Operations Manual. This new version of SS Advanced Navigation is geared towards Sailors ready to take the next step of their career - Navigation Supervisor. It provides a basic level of knowledge needed to start down the road to Nav Sup qualification. Use this product to get up to speed on those everyday items we sometimes take for granted, and at the same time, get back into our references.

I have been working with the ANAVs at the Submarine Learning Center to get the most useful information into the product we are working on. 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.

SOBT Navigation

## Sonar Systems

Hello again shipmates! Let's talk about SOBT products that can be used for Sonar watchstation qualifications.

### SS Acoustic Signal Recognition (Sonar) DODUSNSLCSOBT\_04110

provides detailed training in acoustic signal recognition including acoustic theory, sound propagation, lofargrams for active Sonars, torpedoes, and submarine contacts.

### SS AN/BQQ-10 Sonar Supervisor DODUSNSLCSOBT\_07040

covers many of the knowledge requirements for qualification as a Sonar Supervisor such as duties and responsibilities, required manning, and tactical aspects of Sonar search. This course also has detection and classification scenarios where you

Continued on Page 5



Continued from Page 4  
determine the contact classification based on provided clues.

### **SSN 688 AN/BQN-17 Fathometer Operator DODUSNSLCSOBT\_07046**

provides knowledge on specific fathometer operations including the displays, controls and indicators, modes of operation, chart recorder interpretation, and emergency situations.

### **SS AN/WLR-9 DODUSNSLCSOBT\_01072**

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

### **SS AN/BQQ-10 Active Intercept and Ranging (AI&R) DODUSNSLCSOBT\_07047**

introduces the Sonar operator to the AI&R system. The topics cover components, APB 04 employment, and APB 06 employment.

### **SSN 688I AN/BSY-1 Bottom Sounder Operator DODUSNSLCSOBT\_00039**

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 qualifying watchstander to the requirements of 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

## **SS Petty Officer Of the Deck**

A sailor reporting to their first submarine is typically greeted with a welcome aboard followed by "get hot, here is your initial stack of qual cards." This daunting task may seem overwhelming, especially when you add divisional and departmental responsibilities on top of qualifications. Do not despair if you are experiencing this challenge; Submarine On Board Training provides many valuable

products to help you achieve your qualification goals. One of these great products is SS POOD DODUSNSLCSOBT\_03163. This interactive courseware presents the information needed to qualify Petty Officer of the Deck using scenario based animation.

SS POOD was developed using a 688I model, but the training is general in design to accommodate the differences in submarine classes and in each individual ship's policy with regard to watchstanding specifics. It covers all aspects of the Petty Officer of the Deck watch in three lessons. The first lesson, Responsibilities of the Watchstation, provides the trainee with fundamental knowledge that includes duties and responsibilities, safety and support equipment, topside and pier equipment and physical security. Watchstanding Routines builds on these fundamentals by allowing the trainee to experience normal, infrequent and emergency situations through interactive scenarios. The final lesson, Practical Factors, details the operations of the Portable Ship's Communications Unit and walks the trainee through the armed turnover procedures. Each lesson contains periodic self check questions and concludes with a comprehensive examination to validate knowledge transfer.

When a ship is in port, the POOD is the first line of defense against security threats. This tremendous responsibility may be in your hands, even as a junior sailor. SOBT products will not only expedite your qualification progress, but also provides you with the necessary training to ensure you are fully prepared to stand a proficient watch. Don't let your shipmates down, they are entrusting you with their lives. Make sure you relieve the watch fully armed with ammunition and knowledge.

Strategic Weapons/Wardroom Support



**On the Cover:** The fast attack submarine **Dallas (SSN-700)** arrives for a port visit at Souda Bay, Crete, Greece 18 Sept. 2006. US Navy photo # N-0780F-008, by Mr. Paul Farley, courtesy of [news.navy.mil](http://news.navy.mil)



## NUCLEAR TRAINING

The learning process continues long after the qualification process has ended. Continuing training is an integral part of the nuclear community. 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 Continuing Training Program. 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 best nuclear operator possible.

BEQ/Nuclear Training

## Simulation Training Tools

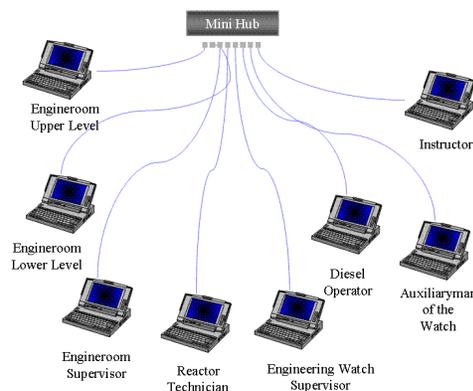
SOBT simulators provide an opportunity to learn and sharpen watch standing skills. The following matrices list the applications and components of each simulator.

### SSN 688 EngSkillsNet Ver. 3.5

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

#### Systems:

- ◆ 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





### SUBSKILLSNET 7.0 APPLICATIONS

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.



### Sonar Basic Operator Training (SBOT) Components

The following ARCI components are contained within the SBOT Suite. Specific component 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 ownship 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

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 ownship 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

### ADCAP Post Launch Trainer (APLT) and Combat Basic Operator Training (CBOT) Components

The following components are available in APLT and 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