

CHAPTER 73



SONAR TECHNICIAN (SURFACE) (STG)

NAVPERS 18068-73E
CH-54

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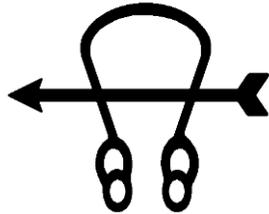
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NAVY ENLISTED OCCUPATIONAL STANDARD

FOR

SONAR TECHNICIAN (SURFACE) (STG)



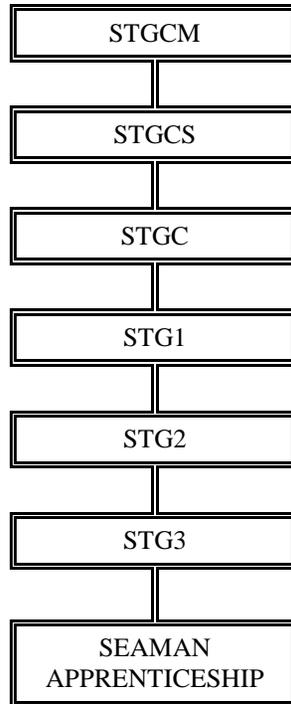
SCOPE OF RATING

Sonar Technicians, Surface (STG) operate surface sonar and other oceanographic systems; manipulate, control, evaluate, and interpret sonar and oceanographic data; operate surface ship underwater fire control systems (with associated equipment) for the solution of anti-submarine warfare problems; and perform organizational and intermediate maintenance on surface sonar and allied equipment.

This Occupational Standard is to be incorporated in Volume I, Part B, of the Manual of Navy Enlisted Manpower and Personnel Classifications and Occupational Standards (NAVPERS 18068F) in Chapter 73.

GENERAL INFORMATION

CAREER PATTERN



Normal path of advancement to Chief Warrant Officer and Limited Duty Officer categories can be found in OPNAVINST 1420.1.

For rating entry requirements, refer to MILPERSMAN 1306-618.

SAFETY

The observance of Operational Risk Management (ORM) and proper safety precautions in all areas is an integral part of each billet and the responsibility of every Sailor; therefore, it is a universal requirement for all ratings.

Job Title**Anti-submarine Warfare Operations Manager****Job Code****003746****Job Family**
Management**NOC**
TBD**Short Title (30 Characters)**
ASW OPERATIONS MANAGER**Short Title (10 Characters)**
ASW OP MGR**Pay Plan**
Enlisted**Career Field**
STG**Other Relationships and Rules**
Any applicable NEC: 0466, 0507, 1321 or 0000**Job Description**

Anti-Submarine Warfare Operations Managers manage the employment of Undersea Warfare equipment; evaluate, disseminate and make tactical Undersea Warfare decisions; coordinate communications, manage equipment maintenance, and conduct ordnance oversight; manage training programs; and monitor watch team operations.

DoD Relationship**Group Title**
Sonar, General**DoD Code**
113000**O*NET Relationship****Occupation Title**
Computer and Information Systems
Managers**SOC Code**
11-3021.00**Job Family**
Management**Skills**

Critical Thinking
Coordination
Operation and Control
Equipment Selection
Systems Analysis
Complex Problem Solving
Management of Material Resources
Quality Control Analysis
Judgment and Decision Making
Monitoring

Abilities

Deductive Reasoning
Inductive Reasoning
Written Comprehension
Problem Sensitivity
Information Ordering
Category Flexibility
Written Expression
Selective Attention
Control Precision
Oral Expression

ANTI-SUBMARINE WARFARE (ASW)

Paygrade	Task Type	Task Statements
E6	CORE	Assign contact priorities
E7	CORE	Coordinate Anti-Submarine Warfare (ASW) missions
E7	CORE	Coordinate Anti-Submarine Warfare (ASW) prosecutions
E7	CORE	Coordinate multi-force prosecutions (air, surface, and subsurface)
E7	CORE	Coordinate Surface Action Unit (SAU) procedures
E6	CORE	Correlate multi-sensor data
E7	CORE	Establish Prevention of Mutual Interference (PMI) plans
E7	CORE	Establish Water Space Management (WSM) plans
E6	CORE	Evaluate Anti-Submarine Warfare (ASW) plots
E7	CORE	Evaluate force lay down plan Undersea Warfare Decision Support Systems (USWDSS)
E6	CORE	Evaluate search plans
E6	CORE	Execute Prevention of Mutual Interference (PMI) plans
E6	CORE	Execute Water Space Management (WSM) plans
E6	CORE	Interpret Anti-Submarine Warfare (ASW) plots
E7	CORE	Manage battle group Anti-Submarine Warfare (ASW) operations
E6	CORE	Manage Integrated Underwater Surveillance Sonar System (IUSS) operations

E7	CORE	Plan Anti-Submarine Warfare (ASW) missions
E7	CORE	Supervise towed systems handling

AUXILIARY AND SUPPORT SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E7	CORE	Manage sonar dome configuration changes
E6	CORE	Perform external communications (radios, telephones, ship-to-ship, and ship-to-shore)
E7	CORE	Supervise sonar dome pressurization system operations

EQUIPMENT ADMINISTRATION

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E7	CORE	Approve installation and alteration of equipment
E6	CORE	Coordinate equipment certifications
E6	CORE	Manage alignment of weapons and combat systems equipment
E6	NON-CORE	Manage contractor testing
E6	CORE	Manage controlled equipment
E6	CORE	Manage electronic systems configuration
E6	CORE	Manage network software and firmware
E6	CORE	Manage password accounts
E6	CORE	Manage work center equipment and system level administration
E6	NON-CORE	Supervise installation and alteration of equipment
E6	CORE	Update password accounts

UNDERWATER ANALYSIS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E6	CORE	Correlate acoustic intelligence data
E7	CORE	Determine final contact classifications

WATCH TEAM OPERATIONS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E6	CORE	Coordinate tactical information distribution
E6	CORE	Manage sonar doctrine statements
E4	CORE	Review sonar doctrine
E7	NON-CORE	Verify message formats

Job Title**Anti-submarine Warfare Equipment Operator****Job Code****003747****Job Family**

Office and Administrative Support

NOC

TBD

Short Title (30 Characters)

ASW EQUIPMENT OPERATOR

Short Title (10 Characters)

ASW EQ OP

Pay Plan

Enlisted

Career Field

STG

Other Relationships and Rules

0406, 0411, 0511, 0508, 0521, 0505, 0450, 0430, 0516, 0523

Job Description

Anti-Submarine Warfare Equipment Operators operate sonar systems, underwater fire control systems, and support equipment on combatant surface ships and fixed shore stations; conduct undersea surveillance and aid in safe navigation; use shipboard equipment and fixed shore equipment to detect, analyze, and locate targets of interest; conduct ordnance handling; and operate various support equipment.

DoD Relationship**O*NET Relationship****Group Title**

Sonar, General

DoD Code

113000

Occupation Title

Computer Operators

SOC Code

43-9011.00

Job Family

Office and Administrative Support

Skills*Complex Problem Solving**Equipment Selection**Operation and Control**Coordination**Reading Comprehension**Critical Thinking**Mathematics**Judgment and Decision Making**Active Learning**Monitoring***Abilities***Deductive Reasoning**Written Comprehension**Control Precision**Inductive Reasoning**Mathematical Reasoning**Selective Attention**Written Expression**Manual Dexterity**Information Ordering**Perceptual Speed***ANTI-SUBMARINE WARFARE (ASW)****Paygrade****Task Type****Task Statements**

E4

CORE

Analyze Contacts of Interest (COI)

E4

CORE

Assign symbology to contacts

E4

CORE

Compute contact course and speed

E4

CORE

Conduct Target Motion Analysis (TMA)

E4

CORE

Determine best depth for submarine to avoid detection

E4

CORE

Determine break point and ambient limited speeds

E4

CORE

Determine contact bearing

E4

CORE

Determine contact ranges

E4

CORE

Evaluate contact information

E4

CORE

Execute search plans

E4

CORE

Generate acoustic data media recordings

E4

CORE

Identify evasion devices and acoustic jamming

E4

CORE

Identify submerged objects

E5

CORE

Input underwater fire control parameters

E5

CORE

Launch anti-submarine weapons

E4

CORE

Launch Expendable Mobile Acoustic Training Targets (EMATT)

E5	CORE	Localize Targets of Interest (TOI)
E5	CORE	Operate underwater fire control systems
E4	CORE	Perform Battle Damage Assessments (BDA)
E5	CORE	Perform tactical oceanographic analysis
E5	CORE	Prepare acoustic data media for shipment
E4	CORE	Recognize and interpret symbology of underwater contacts
E5	CORE	Recommend actions to reduce own ship's detectability
E5	CORE	Recommend Anti-Submarine Warfare (ASW) search and attack plans
E5	CORE	Recommend evasive steering actions
E4	CORE	Recommend own ship's course and speed changes
E5	CORE	Recommend torpedo evasion tactics
E4	CORE	Report Contacts of Interest (COI)
E4	CORE	Resolve towed array ambiguities
E5	CORE	Supervise shipboard Anti-Submarine Warfare (ASW) operations
E5	CORE	Supervise small object avoidance operations
E4	CORE	Track Contacts of Interest (COI)
E4	CORE	Update and display contact information

AUXILIARY AND SUPPORT SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Make operational and situational reports
E4	CORE	Monitor and document external communications
E4	CORE	Operate auxiliary air and cooling water systems
E4	CORE	Operate sonar dome pressurization systems
E4	CORE	Operate torpedo countermeasure systems equipment
E4	CORE	Operate underwater communication systems equipment
E4	CORE	Stream torpedo countermeasure systems
E4	CORE	Test communications systems

EQUIPMENT ADMINISTRATION

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E5	NON-CORE	Supervise equipment and system level operations

SONAR SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Launch Expendable Bathythermographs (XBT)
E4	CORE	Make tow point changes
E4	CORE	Operate active sonar systems
E4	CORE	Operate computer and peripheral systems

E4	CORE	Operate depth sounding systems
E4	CORE	Operate environmental range prediction systems
E4	CORE	Operate informational display systems
E4	CORE	Operate network systems
E4	CORE	Operate passive sonar systems
E4	CORE	Operate tactical display systems
E4	CORE	Prepare active sonobuoys for deployment
E4	CORE	Prepare towed array equipment
E4	CORE	Prepare towed array for deployment
E4	CORE	Recover towed array
E4	CORE	Stream towed array

TECHNICAL CORE FUNDAMENTALS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	NON-CORE	Test valves
E4	NON-CORE	Troubleshoot valves

UNDERWATER ANALYSIS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Analyze acoustic recording data
E4	CORE	Analyze active acoustic data
E4	CORE	Analyze Expendable Bathythermograph (XBT) data
E4	CORE	Analyze oceanographic and meteorological data
E4	CORE	Annotate Contacts of Interest (COI)
E4	CORE	Collect acoustic intelligence data
E4	CORE	Determine bottom loss
E4	CORE	Determine initial contact classifications
E4	CORE	Determine real time sound propagation changes
E4	CORE	Identify biological effects on acoustic data
E4	CORE	Identify broadband traces
E4	CORE	Identify environmental effects on acoustic data
E4	CORE	Identify passive acoustic data
E4	CORE	Identify sources of self noise
E4	CORE	Obtain turn counts and shaft Revolutions Per Minute (RPM)
E4	CORE	Review acoustic intelligence documents
E5	CORE	Review active acoustic data
E5	CORE	Review passive acoustic data

WATCH TEAM OPERATIONS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	NON-CORE	Align systems to Commanding Officer's (CO) tactical orders
E4	CORE	Configure systems for normal operations
E4	CORE	Configure systems for training operations
E5	CORE	Draft messages for transmission
E4	NON-CORE	Execute Commanding Officer's (CO) tactical orders
E5	NON-CORE	Execute Rules of Engagement (ROE)
E4	CORE	Execute sonar doctrine
E5	NON-CORE	Execute warfare commanders messages and intentions
E4	NON-CORE	Interpret Naval messages
E4	CORE	Manage database information
E4	CORE	Monitor assignment and engagement status of own ship's weapons system
E5	NON-CORE	Monitor watch team performance
E4	CORE	Operate Command, Control, Computer, Communication, and Intelligence (C4I) systems
E4	CORE	Prepare sonar control for special evolutions
E4	CORE	Review combat systems equipment status
E6	NON-CORE	Review Commanding Officer's (CO) tactical orders
E6	NON-CORE	Review Rules of Engagement (ROE)
E4	CORE	Review tactical operations data
E4	CORE	Review threat weapons data
E6	NON-CORE	Review warfare commander's messages and intentions
E4	NON-CORE	Review watch-related operation references
E5	CORE	Supervise equipment alignment according to Emission Control (EMCON) plans
E5	CORE	Supervise sonar control during casualty conditions
E5	CORE	Supervise sonar control during special evolutions
E5	CORE	Transition sonar control between conditions of readiness
E4	CORE	Update plotting and status boards
E4	CORE	Verify equipment alignment according to Emission Control (EMCON) plan
E5	NON-CORE	Verify systems alignment to Commanding Officer's (CO) tactical orders

Job Title

Anti-submarine Warfare Equipment Technician

Job Code

003748

Job Family

Installation, Maintenance, and Repair

NOC

TBD

Short Title (30 Characters)

ASW EQUIPMENT TECHNICIAN

Short Title (10 Characters)

ASW EQ TEC

Pay Plan

Enlisted

Career Field

STG

Other Relationships and Rules

0402, 0455, 0510, 0476, 0469, 0522, 0479, 0509, 0415, 0506

Job Description

Anti-Submarine Warfare Equipment Technicians maintain, troubleshoot and repair sonar systems, underwater fire control systems and support equipment on combatant surface ships and fixed shore stations.

DoD Relationship

Group Title

Sonar, General

DoD Code

113000

O*NET Relationship

Occupation Title

Electrical and Electronics Repairers, Commercial and Industrial Equipment

SOC Code

49-2094.00

Job Family

Installation, Maintenance, and Repair

Skills

Reading Comprehension

Troubleshooting

Complex Problem Solving

Operation Monitoring

Quality Control Analysis

Systems Evaluation

Equipment Maintenance

Repairing

Management of Material Resources

Equipment Selection

Abilities

Problem Sensitivity

Manual Dexterity

Deductive Reasoning

Written Comprehension

Control Precision

Inductive Reasoning

Information Ordering

Written Expression

Oral Expression

Selective Attention

AUXILIARY AND SUPPORT SYSTEMS

Paygrade

Task Type

Task Statements

E4	CORE	Configure sonar dome pressurization systems for maintenance
E4	CORE	Perform internal communications (Internal Voice Communication Systems (IVCS), verbal communications, and sound-powered telephones)
E4	CORE	Perform preventive maintenance on auxiliary air and cooling water systems
E4	CORE	Perform preventive maintenance on sonar dome pressurization systems
E4	CORE	Perform preventive maintenance on torpedo countermeasure systems
E4	CORE	Perform preventive maintenance on underwater communication systems
E4	CORE	Repair auxiliary air and cooling water systems
E4	CORE	Repair sonar dome pressurization systems
E4	CORE	Repair torpedo countermeasure systems
E4	CORE	Repair underwater communication systems
E4	CORE	Test auxiliary air and cooling water systems
E4	CORE	Test sonar dome pressurization systems
E4	CORE	Test torpedo countermeasure systems
E4	CORE	Test underwater communication systems
E4	CORE	Troubleshoot auxiliary air and cooling water systems

E4	CORE	Troubleshoot sonar dome pressurization systems
E4	CORE	Troubleshoot torpedo countermeasure systems
E4	CORE	Troubleshoot underwater communication systems

EQUIPMENT ADMINISTRATION

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Collect equipment and system status data
E4	CORE	Document equipment status
E4	NON-CORE	Inspect work areas, tools, and electronic systems equipment
E4	CORE	Inventory controlled equipment
E4	CORE	Inventory Maintenance Assistance Modules (MAM)
E4	CORE	Inventory network software and firmware
E4	CORE	Maintain password accounts
E4	NON-CORE	Monitor contractor installations
E4	CORE	Monitor for network vulnerabilities
E4	CORE	Review technical briefs, notices, and bulletins
E5	NON-CORE	Supervise controlled equipment inventories
E5	NON-CORE	Supervise equipment and system level preventive maintenance
E5	NON-CORE	Supervise Maintenance Assistance Modules (MAM) usage
E4	CORE	Update network software

SONAR SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Perform preventive maintenance on active sonar systems
E4	CORE	Perform preventive maintenance on computer and peripheral systems
E4	CORE	Perform preventive maintenance on depth sounding systems
E4	CORE	Perform preventive maintenance on environmental range prediction systems
E4	CORE	Perform preventive maintenance on network systems
E4	CORE	Perform preventive maintenance on passive sonar systems
E4	CORE	Perform preventive maintenance on tactical display systems
E4	CORE	Perform preventive maintenance on towed array handling systems
E4	CORE	Repair active sonar systems
E4	CORE	Repair computer and peripheral systems
E4	CORE	Repair depth sounding systems
E4	CORE	Repair environmental range prediction systems
E4	CORE	Repair network systems
E4	CORE	Repair passive sonar systems
E4	CORE	Repair tactical display systems

E4	CORE	Repair towed array handling systems
E4	CORE	Test active sonar systems
E4	CORE	Test computer and peripheral systems
E4	CORE	Test depth sounding systems
E4	CORE	Test environmental range prediction systems
E4	CORE	Test network systems
E4	CORE	Test passive sonar systems
E4	CORE	Test tactical display systems
E4	CORE	Test towed array handling systems
E4	CORE	Troubleshoot active sonar systems
E4	CORE	Troubleshoot computer and peripheral systems
E4	CORE	Troubleshoot depth sounding systems
E4	CORE	Troubleshoot environmental range prediction systems
E4	CORE	Troubleshoot network systems
E4	CORE	Troubleshoot passive sonar systems
E4	CORE	Troubleshoot tactical display systems
E4	CORE	Troubleshoot towed array handling systems

TECHNICAL CORE FUNDAMENTALS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Align weapons and combat systems equipment
E4	CORE	Identify the effects of Electromagnetic Interference (EMI) and Radio Frequency Interference (RFI)
E4	NON-CORE	Interpret blueprints and ship's drawings
E4	NON-CORE	Interpret electronic schematics
E4	NON-CORE	Interpret mechanical drawings
E4	NON-CORE	Interpret plumbing and valve drawings
E4	NON-CORE	Interpret technical manuals
E4	CORE	Operate General Purpose Test Equipment (GPTE)
E4	CORE	Operate Special Purpose Test Equipment (SPTE)
E4	NON-CORE	Perform basic soldering on electrical and electronic equipment
E4	CORE	Perform Combat Systems Operational Sequencing System (CSOSS) procedures for casualty operations
E4	CORE	Perform Combat Systems Operational Sequencing System (CSOSS) procedures for casualty response
E4	CORE	Perform Combat Systems Operational Sequencing System (CSOSS) procedures for normal operations
E4	CORE	Perform Combat Systems Operational Sequencing System (CSOSS) procedures to energize/de-energize equipment

E4	CORE	Perform corrosion prevention and control procedures
E4	CORE	Perform digital logic numeric conversions
E4	CORE	Perform preventive maintenance on fiber optic cables and connectors
E4	CORE	Perform preventive maintenance on interconnecting cables and connectors
E4	CORE	Perform six step troubleshooting techniques
E4	CORE	Repair fiber optic cables and connectors
E4	CORE	Repair interconnecting cables and connectors
E4	CORE	Test fiber optic cables and connectors
E4	CORE	Test interconnecting cables and connectors
E4	CORE	Troubleshoot Alternating Current (AC) circuits
E4	CORE	Troubleshoot digital circuits
E4	CORE	Troubleshoot Direct Current (DC) circuits
E4	CORE	Troubleshoot fiber optic cables and connectors
E4	CORE	Troubleshoot interconnecting cables and connectors
E4	CORE	Troubleshoot power supplies