# CHAPTER 74



# SONAR TECHNICIAN (SUBMARINE) (STS)

NAVPERS 18068F-74H

Change 103

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## NAVY ENLISTED OCCUPATIONAL STANDARD

**FOR** 

SONAR TECHNICIAN (SUBMARINE) (STS)



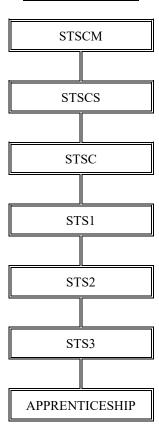
#### SCOPE OF RATING

Sonar Technicians, Submarine (STS) operate submarine sonar mainframe and auxiliary equipment to include controlling, evaluating and intercepting sonar data from oceanographic equipment; coordinate submarine sonar and underwater fire control interface; employ environmental monitoring equipment; and perform organizational and intermediate maintenance.

These Occupational Standards are to be incorporated in Volume I, Part B, of the Manual of Navy Enlisted Manpower and Personnel Classifications and Occupational Standards (NAVPERS 18068F) as Chapter 74.

## **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 article 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 Basic Sonar Operator Job Code 00175

Job FamilyNOCShort Title (30 Characters)Short Title (14 Characters)Transportation and Material MovingTBDBASIC SONAR OPERATORBAS SONAR OPER

Pay Plan Career Field Other Relationships and Rules

Enlisted STS NEC TXXX and 7XXX series and other NECs as assigned

#### **Job Description**

Basic Sonar Operators detect, track, and classify surface and sub-surface contacts; conduct minor maintenance on and operate mainframe sonar systems, depth sounding equipment, and other auxiliary equipment; and perform towed array handling evolutions.

DoD Relationship	O*NET Relationship
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Group Title	<u>DoD Code</u>	Occupation Title	SOC Code	<u>Job Family</u>
Sonar, General	113000	Air Traffic Controllers	53-2021.00	Transportation and Material Moving

**Skills Abilities** Complex Problem Solving Deductive Reasoning Critical Thinking Information Ordering MathematicsFlexibility of Closure Operation Monitoring Speed of Closure Systems Evaluation Auditory Attention Operation and Control Mathematical Reasoning Active Listening Problem Sensitivity Equipment Maintenance Written Comprehension **Equipment Selection** Control Precision Judgment and Decision Making Inductive Reasoning

#### ACOUSTIC INTELLIGENCE

<b>Paygrade</b>	Task Type	Task Statements
E4	CORE	Calculate acoustic source relationships
E4	CORE	Calculate prime mover characteristics and component relationships
E4	CORE	Classify sonar contacts

#### **ADMINISTRATION**

<u>Paygrade</u>	Task Type	Task Statements
E4	CORE	Record towed array handling data

#### **MAINTENANCE**

<b>Paygrade</b>	Task Type	Task Statements
E4	CORE	Conduct corrective maintenance on sonar equipment
E4	CORE	Conduct preventive maintenance on sonar equipment
E4	CORE	Correct sound isolation deficiencies
E4	CORE	Identify faults in fiber optic cabling, devices, and networks
E4	CORE	Identify sound isolation deficiencies
E4	CORE	Isolate electrical and hydraulic sonar equipment

#### **OCEANOGRAPHY**

<u>Task Type</u>	<u>Task Statements</u>
CORE	Analyze data from tactical decision aids
CORE	Analyze effects of environment on sonar operations
CORE	Analyze real-time oceanographic data
	CORE CORE

STS-5

# OCEANOGRAPHY (CONT'D)

<u>Paygrade</u>	<u> 1 ask 1 ype</u>	<u>Task Statements</u>
E4	CORE	Develop recommendations based on real-time oceanographic data

# SONAR EMPLOYMENT

<b>Paygrade</b>	Task Type	Task Statements
E4	CORE	Analyze contact data utilizing sonar equipment
E4	CORE	Analyze contact transient emissions
E4	CORE	Conduct towed array handling evolutions
E4	CORE	Configure workstation for system employment
E4	CORE	Correlate contacts utilizing multiple sensors (i.e., spherical array, towed array, and other hull sensors)
E4	CORE	Detect navigation hazards utilizing sonar equipment (active and passive)
E4	CORE	Provide contact management recommendations
E4	CORE	Track sonar contacts utilizing sonar equipment

# SONAR FUNDAMENTALS

<b>Paygrade</b>	Task Type	Task Statements
E4	CORE	Analyze Doppler effects
E4	CORE	Analyze indications of contact range
E4	CORE	Analyze relative motion for contact management
E4	CORE	Calculate shaft Revolutions Per Minute (RPMs) by system employment
E4	CORE	Detect contacts utilizing passive sensors
E4	CORE	Report sonar data to sonar supervisor

# Job Title Advanced Sonar Operator

Job Code 001760

Job FamilyNOCShort Title (30 Characters)Short Title (14 Characters)Protective ServiceTBDSONAR OPERATORADV SONAR OPER

Enlisted STS NEC TXXX and 7XXX series and other NECs as assigned

#### **Job Description**

Advanced Sonar Operators maintain, troubleshoot, and repair sonar systems, fiber optic networks, and support equipment; operate mainframe sonar systems and auxiliary equipment to detect, track, and classify acoustic contacts; perform towed array handling and tactical oceanography employment; and collect and analyze oceanographic data.

DoD Relationship O\*NET Relationship

Group Title	DoD Code	Occupation Title	SOC Code	<u>Job Family</u>
Sonar, General	113000	Intelligence Analysts	33-3021.06	Protective Service

<u>Skills</u> <u>Abilities</u>

Complex Problem Solving Deductive Reasoning Operation Monitoring Information Ordering Systems Evaluation Flexibility of Closure Critical Thinking Problem Sensitivity Operation and Control Inductive Reasoning Mathematics Speed of Closure Coordination Written Comprehension Auditory Attention Repairing Systems Analysis Mathematical Reasoning Equipment Maintenance Visual Color Discrimination

#### ACOUSTIC INTELLIGENCE

<b>Paygrade</b>	Task Type	Task Statements
E5	CORE	Analyze contact data to determine operational parameters
E4	CORE	Calculate acoustic source relationships
E4	CORE	Calculate prime mover characteristics and component relationships
E4	CORE	Classify sonar contacts
E5	CORE	Collect Acoustic Intelligence (ACINT) data

#### **ADMINISTRATION**

<b>Paygrade</b>	Task Type	Task Statements
E5	NON-CORE	Manage Acoustic Signature Maintenance Log (ASML) entries
E5	CORE	Prepare Acoustic Intelligence (ACINT) recording packages
E4	CORE	Record towed array handling data

#### **MAINTENANCE**

<u>Paygrade</u>	Task Type	Task Statements
E4	CORE	Conduct corrective maintenance on sonar equipment
E4	CORE	Conduct preventive maintenance on sonar equipment
E5	CORE	Correct fiber optic deficiencies
E4	CORE	Correct sound isolation deficiencies
E4	CORE	Identify faults in fiber optic cabling, devices, and networks
E4	CORE	Identify sound isolation deficiencies

# MAINTENANCE (CONT'D)

<u>Paygrade</u>	<u>Task Type</u>	Task Statements
E4	CORE	Isolate electrical and hydraulic sonar equipment
E5	CORE	Maintain fiber optic network
E5	CORE	Monitor sonar system status
E5	NON-CORE	Prepare sonar dome for entry and ship's evolutions
E5	CORE	Troubleshoot sonar equipment

# **OCEANOGRAPHY**

<b>Paygrade</b>	Task Type	Task Statements
E4	CORE	Analyze data from tactical decision aids
E4	CORE	Analyze effects of environment on sonar operations
E4	CORE	Analyze real-time oceanographic data
E5	CORE	Collect scientific oceanographic data
E4	CORE	Develop recommendations based on real-time oceanographic data
E5	CORE	Develop sonar search plans

## SONAR EMPLOYMENT

<b>Paygrade</b>	Task Type	Task Statements
E5	CORE	Analyze active return characteristics
E4	CORE	Analyze contact data utilizing sonar equipment
E4	CORE	Analyze contact transient emissions
E4	CORE	Conduct towed array handling evolutions
E4	CORE	Configure workstation for system employment
E4	CORE	Correlate contacts utilizing multiple sensors (i.e., spherical array, towed array, and other hull sensors)
E4	CORE	Detect navigation hazards utilizing sonar equipment (active and passive)
E4	CORE	Provide contact management recommendations
E5	CORE	Provide recommendations for tactical security conditions
E4	CORE	Track sonar contacts utilizing sonar equipment

# SONAR FUNDAMENTALS

<b>Paygrade</b>	Task Type	Task Statements
E4	CORE	Analyze Doppler effects
E4	CORE	Analyze indications of contact range
E5	CORE	Analyze own ship's noise offenders
E4	CORE	Analyze relative motion for contact management
E5	CORE	Analyze self-noise data to determine ship's signature
E4	CORE	Calculate shaft Revolutions Per Minute (RPMs) by system employment
E5	CORE	Collect self-noise data to determine ship signature
E5	CORE	Detect contacts utilizing own ship's active sonar
E4	CORE	Detect contacts utilizing passive sensors
E4	CORE	Report sonar data to sonar supervisor

# Job Title Sonar Supervisor Job Code 001765

Job FamilyNOCShort Title (30 Characters)Short Title (14 Characters)Military SpecificTBDSONAR SUPERVISORSONAR SUPV

Pay Plan Career Field Other Relationships and Rules

Enlisted STS NEC TXXX and 7XXX series and other NECs as assigned

#### **Job Description**

Sonar Supervisors manage the employment of undersea warfare equipment; evaluate, disseminate, and make tactical undersea warfare decisions; coordinate communications; oversee divisional and departmental operations, maintenance, training, tactical oceanography employment, and decision making; conduct critical work functions to support producing intelligence, processing and attacking targets; supervise equipment maintenance and repair; and provide personnel support.

#### DoD Relationship O\*NET Relationship

Group Title	<u>DoD Code</u>	Occupation Title	SOC Code	<u>Job Family</u>
Sonar, General	113000	Command and Control Center	55-1015.00	Military Specific
		Officers		

**Skills Abilities** Complex Problem Solving Information Ordering Operation Monitoring Deductive Reasoning Systems Evaluation Problem Sensitivity Flexibility of Closure CoordinationCritical Thinking Inductive Reasoning Management of Material Resources Speed of Closure Operation and Control Written Comprehension Judgment and Decision Making Written Expression Mathematics Auditory Attention Management of Personnel Resources Mathematical Reasoning

# ACOUSTIC INTELLIGENCE

<u>Paygrade</u>	<u>Task Type</u>	Task Statements
E5	CORE	Analyze contact data to determine operational parameters
E4	CORE	Calculate acoustic source relationships
E4	CORE	Calculate prime mover characteristics and component relationships
E4	CORE	Classify sonar contacts
E5	CORE	Collect Acoustic Intelligence (ACINT) data

#### **ADMINISTRATION**

<u>Paygrade</u> E6	Task Type CORE	<u>Task Statements</u> Conduct tactical briefings (e.g., environmental conditions, expected frequencies, ship equipment characteristics, etc.)
E6	CORE	Coordinate data collection operations (e.g., exercise, mission set, torpedo testing, etc.)
E5	NON-CORE	Manage Acoustic Signature Maintenance Log (ASML) entries
E7	CORE	Manage sonar division administrative requirements (e.g., tactical decision aids, search plans, etc.)
E7	CORE	Manage sonar dome for entry and ship's evolutions
E6	CORE	Perform post-watch reconstruction for data collection and analysis
E5	CORE	Prepare Acoustic Intelligence (ACINT) recording packages
E4	CORE	Record towed array handling data

# MAINTENANCE

<b>Paygrade</b>	Task Type	Task Statements
E4	CORE	Conduct corrective maintenance on sonar equipment
E4	CORE	Conduct preventive maintenance on sonar equipment
E5	CORE	Correct fiber optic deficiencies
E4	CORE	Correct sound isolation deficiencies
E4	CORE	Identify faults in fiber optic cabling, devices, and networks
E4	CORE	Identify sound isolation deficiencies
E4	CORE	Isolate electrical and hydraulic sonar equipment
E5	CORE	Maintain fiber optic network
E5	CORE	Monitor sonar system status
E5	NON-CORE	Prepare sonar dome for entry and ship's evolutions
E7	CORE	Supervise sonar corrective maintenance evolutions
E6	CORE	Supervise sonar preventive maintenance evolutions
E5	CORE	Troubleshoot sonar equipment

# **OCEANOGRAPHY**

<u>Paygrade</u>	Task Type	Task Statements
E4	CORE	Analyze data from tactical decision aids
E4	CORE	Analyze effects of environment on sonar operations
E4	CORE	Analyze real-time oceanographic data
E5	CORE	Collect scientific oceanographic data
E4	CORE	Develop recommendations based on real-time oceanographic data
E5	CORE	Develop sonar search plans

# SONAR EMPLOYMENT

<b>Paygrade</b>	Task Type	Task Statements
E5	CORE	Analyze active return characteristics
E4	CORE	Analyze contact data utilizing sonar equipment
E4	CORE	Analyze contact transient emissions
E4	CORE	Conduct towed array handling evolutions
E4	CORE	Configure workstation for system employment
E4	CORE	Correlate contacts utilizing multiple sensors (i.e., spherical array, towed array, and other hull sensors)
E4	CORE	Detect navigation hazards utilizing sonar equipment (active and passive)
E4	CORE	Provide contact management recommendations
E5	CORE	Provide recommendations for tactical security conditions
E6	CORE	Provide recommendations for towed array employment
E6	CORE	Supervise sonar system employment
E6	CORE	Supervise towed array handling evolutions
E4	CORE	Track sonar contacts utilizing sonar equipment

# SONAR FUNDAMENTALS

<b>Paygrade</b>	Task Type	Task Statements
E4	CORE	Analyze Doppler effects
E4	CORE	Analyze indications of contact range
E5	CORE	Analyze own ship's noise offenders
E4	CORE	Analyze relative motion for contact management
E5	CORE	Analyze self-noise data to determine ship's signature
E4	CORE	Calculate shaft Revolutions Per Minute (RPMs) by system employment
E5	CORE	Collect self-noise data to determine ship signature
E5	CORE	Detect contacts utilizing own ship's active sonar
E4	CORE	Detect contacts utilizing passive sensors