

CHAPTER 32



ELECTRONICS TECHNICIAN, SUBMARINE, NAVIGATION (ETV)

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NAVY ENLISTED OCCUPATIONAL STANDARD
FOR
ELECTRONICS TECHNICIAN, SUBMARINE, NAVIGATION (ETV)



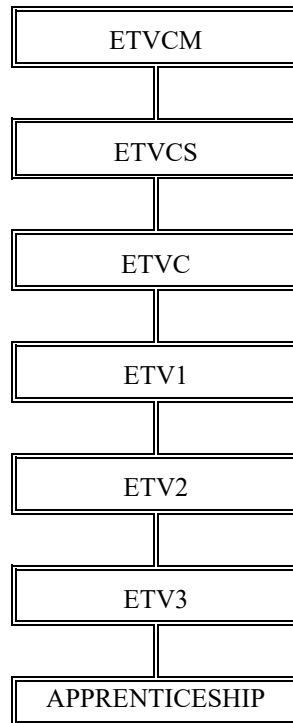
SCOPE OF RATING

Electronics Technicians, Submarine, Navigation (ETV) operate and perform maintenance on electronic equipment used for detection, tracking, recognition, and identification of maritime vessels and navigational aids; operate and perform maintenance on Interior Communications (IC), alarms, warnings and indicators, ship's control, entertainment, atmosphere control, instrumentation, and control systems; operate and maintain radar, gyrocompass, inertial navigation, and auxiliary equipment used to safely and accurately navigate all classes of submarines; maintain highly accurate navigation data for use by external systems and subsystems; develop and execute navigation plans; perform ship control, navigation, and lookout duties; procure, correct, use, and stow navigation publications and charts; and stand watch as assistants to Officers of the Deck (OOD) and navigators.

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 18068H) as Chapter 32.

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**Submarine Navigation Operator****Job Code****001182****Job Family**

Installation, Maintenance, and Repair

NOC

TBD

Short Title (30 Characters)

SUBMARINE NAVIGATION OPERATOR

Short Title (14 Characters)

SUB NAV OPER

Pay Plan

Enlisted

Career Field

ETV

Other Relationships and Rules

NEC TXXX, 7XXX series and other NECs as assigned

Job Description

Submarine Navigation Operators operate electronic equipment used for detection, tracking, recognition and identification of maritime vessels and aids to navigation; operate and perform preventive maintenance on Radio Detection and Ranging (RADAR) systems, Interior Communications (IC) circuits and systems, fathometers, Electronic Chart Display and Information System (ECDIS), alarm systems, ship's control stations, entertainment systems, Inertial Navigation System (INS), Central Atmosphere Monitoring System (CAMS), Navigation Processor Unit (NPU), Remote Interface Controller (RIC), liquid level detection and Tank Level Indication (TLI) circuits, flowmeters, pressure and temperature sensing circuits, valve position indicators, hovering systems, depth control systems, fiber optic systems, Linux-based systems, and missile compensation systems; procure, inventory, and update electronic charts and publications; prepare navigation voyage plans and maintain electronic navigation logs and records; stand navigation watches; advise and make reports to the Officer of the Deck (OOD) on Navigation Rules and Regulations, navigation plans, and other navigation matters; and report to/work under direct supervision of the Submarine Navigation Technician and Submarine Navigation Manager.

DoD Relationship**Group Title**

Navigation, Communication, 110200
and Countermeasure, N.E.C.

DoD Code**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**Equipment Maintenance**Critical Thinking**Mathematics**Operation and Control**Troubleshooting**Repairing**Systems Evaluation**Complex Problem Solving**Systems Analysis***Abilities***Written Comprehension**Extent Flexibility**Deductive Reasoning**Inductive Reasoning**Mathematical Reasoning**Problem Sensitivity**Information Ordering**Number Facility**Manual Dexterity**Selective Attention***ADMINISTRATION****Paygrade**

E4

Task Type

CORE

Task Statements

Compute celestial event times (e.g., sunrise/sunset, moonrise/moonset, high/low tides, etc.)

E4

CORE

Convert between Greenwich Mean Time (GMT) and Zone Time (ZT)

E4

CORE

Interpret schematic diagrams

E4

CORE

Maintain ship's entertainment media inventories

E4

CORE

Manage navigation records (e.g. deck logs, Electronic Chart Display and Information System (ECDIS) logs, position logs, fathometer logs, etc.,)

E4

CORE

Perform records management of navigation messages (e.g., Operational Orders (OPORD), Operations Schedule (OPSKED), Submarine Notices (SUBNOTE), etc.)

E5

CORE

Prepare navigational information data packages

E4

CORE

Supervise colors

E4

CORE

Update Strategic Weapons System (SWS) special publications

CHART PREPARATIONS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Calculate turn information (e.g., slide bar, turn bearing, turn range, etc.)
E4	CORE	Create parameters for Submerged Navigation Envelope (SNE) (e.g., cross track error, red/yellow sounding, maximum operating depth, etc.)
E4	CORE	Establish voyage plans (e.g., Plan of Intended Movement (PIM), departure/arrival, Speed of Advance (SOA), etc.)
E4	CORE	Extract information from Naval messages (e.g., Operational Orders (OPORD), Operations Schedules (OPSKED), Submarine Notices (SUBNOTE), etc.)
E4	CORE	Extract modified chart data information from navigation publications
E4	CORE	Plot anchorages
E4	CORE	Plot moving havens
E4	CORE	Plot navigational hazards (e.g., danger ranges, danger bearings, shoal water, etc.)
E4	CORE	Prepare charts for navigation (e.g., voyage plan checklists, piloting checklists, etc.)
E4	CORE	Select charts for Navigation Plan (NAVPLAN)
E4	CORE	Update nautical charts (e.g., Electronic Navigational Chart (ENC), Submarine Electronic Navigation Chart (SMENC), etc.)

COMMUNICATIONS AND ALARM SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Derig shore telephone lines
E4	CORE	Install Portable Ship Control Units (PSCU)
E5	CORE	Perform corrective maintenance on Portable Ship Control Units (PSCU)
E5	CORE	Perform corrective maintenance on shore telephone systems
E5	CORE	Perform corrective maintenance on sound-powered telephone systems
E4	CORE	Perform preventive maintenance on alarm switchboards
E4	CORE	Perform preventive maintenance on liquid level alarm sensing devices
E4	CORE	Perform preventive maintenance on pressure alarm sensing devices
E4	CORE	Perform preventive maintenance on shore telephone systems
E4	CORE	Perform preventive maintenance on sound-powered telephone systems
E4	CORE	Remove Portable Ship Control Units (PSCU)
E4	CORE	Rig shore telephone lines

ELECTRONIC NAVIGATION SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E5	CORE	Calibrate Electromagnetic (EM) log indicator transmitters
E4	CORE	Configure navigation subsystem equipment software
E4	CORE	Establish radar operating conditions (e.g., startup, shutdown, etc.)
E4	CORE	Establish required Electronic Chart Display and Information System (ECDIS) operating conditions (e.g., startup, shutdown, etc.)
E4	CORE	Evaluate Inertial Navigation Systems (INS) and subsystems performance
E5	CORE	Evaluate Strategic Weapons System (SWS) navigation subsystems
E4	CORE	Input navigation and voyage plans into the Electronic Chart Display and Information System (ECDIS)

ELECTRONIC NAVIGATION SYSTEMS (CONT'D)

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Interpret fathometer displays
E4	CORE	Interpret Inertial Navigation System (INS) data
E4	CORE	Interpret radar displays
E4	CORE	Obtain sounding data using fathometers
E5	CORE	Perform corrective maintenance on Electromagnetic (EM) log systems
E5	CORE	Perform corrective maintenance on gyrocompass systems
E5	CORE	Perform corrective maintenance on Inertial Navigation Systems (INS) and subsystems
E5	CORE	Perform corrective maintenance on navigation lights
E5	CORE	Perform corrective maintenance on radar systems (military and commercial)
E5	CORE	Perform corrective maintenance on synchro signal amplifiers
E4	CORE	Perform preventive maintenance on Electromagnetic (EM) log systems
E4	CORE	Perform preventive maintenance on gyrocompass systems
E4	CORE	Perform preventive maintenance on Inertial Navigation Systems (INS) and subsystems
E4	CORE	Perform preventive maintenance on radar systems (military and commercial)
E4	CORE	Perform preventive maintenance on Strategic Weapons System (SWS) navigation subsystems
E4	CORE	Perform preventive maintenance on synchro signal amplifiers

GENERAL ELECTRICAL SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Calibrate chronometers
E4	CORE	Establish Central Atmosphere Monitoring System (CAMS) conditions (e.g., startup, shutdown, standby, etc.)
E4	CORE	Manage red hat Linux-based systems
E5	CORE	Perform corrective maintenance on Central Atmosphere Monitoring System (CAMS) equipment
E5	CORE	Perform corrective maintenance on flow meter systems
E5	NON-CORE	Perform corrective maintenance on ship's entertainment systems
E5	CORE	Perform corrective maintenance on synchro repeaters
E4	CORE	Perform preventive maintenance on Aldis lamps
E4	CORE	Perform preventive maintenance on Central Atmosphere Monitoring System (CAMS) equipment
E4	CORE	Perform preventive maintenance on fiber optics systems
E4	CORE	Perform preventive maintenance on flow meter systems
E4	CORE	Perform preventive maintenance on mast position indication system components
E4	CORE	Perform preventive maintenance on pressure sensing devices
E4	CORE	Perform preventive maintenance on ship's entertainment systems
E4	CORE	Perform preventive maintenance on synchro repeaters
E4	CORE	Perform preventive maintenance on Tank Level Indicator (TLI) systems

GENERAL ELECTRICAL SYSTEMS (CONT'D)

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Perform preventive maintenance on temperature monitoring systems
E4	CORE	Perform preventive maintenance on valve control system components
E4	CORE	Perform preventive maintenance on valve position indicating system components

NAVIGATION AND PILOTING

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Advise Officer of the Deck (OOD) of chain scope required for anchoring
E4	CORE	Advise Officer of the Deck (OOD) of ocean depth and bottom (e.g., while at anchor, during piloting, during submerged operations, etc.)
E4	CORE	Calculate environmental effects on ship's movements (e.g., wind, tide, set and drift, etc.)
E4	CORE	Calculate gyrocompass error
E4	CORE	Compare fathometer readings with charts
E4	CORE	Compare gyrocompass and inertial headings
E4	CORE	Compute advance and transfer
E4	CORE	Compute azimuths
E4	CORE	Compute course and speed made good
E4	CORE	Compute position uncertainty
E4	CORE	Compute radar and visual offset
E4	CORE	Convert between relative bearings and true bearings
E4	CORE	Correlate speed, time, and distance
E4	CORE	Evaluate radar information
E4	CORE	Evaluate ship's navigation and piloting information
E4	CORE	Fix ship's position (e.g., bearing and range to single point, latitude/longitude, multiple soundings, etc.)
E4	CORE	Identify reduced visibility situations
E4	CORE	Identify signal flags and pennant displays
E4	CORE	Interpret navigation sound signals (e.g., bell, gong, whistle, etc.)
E4	CORE	Obtain visual bearings (e.g., alidade, periscope, seaman's eye, etc.)
E4	CORE	Plot weather message information
E4	CORE	Provide courses for ship's positioning (e.g., precision anchoring, storm evasion, contact management, etc.)
E4	CORE	Provide recommended actions based on Navigation Rules and Regulations
E4	CORE	Report aids to navigation (e.g., buoy systems, natural or man-made navigation aids, navigation lights, etc.)
E4	CORE	Report distress signals (e.g., flares, whistles, flags/pennants, etc.)
E4	CORE	Rig bridge (e.g., dive, surface, in port, etc.)

POWER GENERATION AND DISTRIBUTION SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Perform preventive maintenance on Action Cut-Out (ACO) switchboards
E4	CORE	Perform preventive maintenance on Interior Communications (IC) and subsystems (e.g., Integrated Communication System (ICS), Army-Navy Wired Interior Communication (ANWIC), sound-powered phones, shore phones, etc.)
E4	CORE	Shift power sources using bus transfer devices (i.e., Automatic, Manual)

SHIP CONTROL SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Evaluate Ship's Control Station (SCS) using Diagnostic and Maintenance Computer (DMAC)
E4	CORE	Perform preventive maintenance on Ballast Control Panels (BCP) and subsystems
E4	CORE	Perform preventive maintenance on depth control systems
E4	CORE	Perform preventive maintenance on depth sensing systems
E4	CORE	Perform preventive maintenance on Ship Control Panels (SCP) and subsystems
E4	CORE	Perform preventive maintenance on ship's control system components

Job Title**Submarine Navigation Technician****Job Code****001187****Job Family**

Installation, Maintenance, and Repair

NOC

TBD

Short Title (30 Characters)

SUBMARINE NAVIGATION TEC

Short Title (14 Characters)

SUB NAV TECH

Pay Plan

Enlisted

Career Field

ETV

Other Relationships and Rules

NEC TXXX, 7XXX series and other NECs as assigned

Job Description

Submarine Navigation Technicians maintain, troubleshoot, and repair electronic equipment used for detection, tracking, recognition, and identification of maritime vessels; operate and maintain Radio Detection and Ranging (RADAR) systems, Interior Communications (IC) circuits and systems, Electronic Chart Display and Information System (ECDIS), alarm systems, ship's control stations, entertainment systems, Inertial Navigation System (INS), Central Atmosphere Monitoring System (CAMS), Navigation Processor Unit (NPU), Remote Interface Controller (RIC), liquid level detection and Tank Level Indication (TLI) circuits, flowmeters, pressure and temperature sensing circuits, valve position indicators, hovering systems, depth control systems, fiber optic systems, Linux-based systems, and missile compensation systems; read and interpret schematics and block diagrams; apply working knowledge of electricity and electronics to repair equipment and interfacing devices; localize malfunctions and repair or replace faulty parts or subassemblies; align, adjust, calibrate, and perform corrective maintenance on navigation equipment; supervise maintenance and maintain navigation division records; train Submarine Navigation Operators; and report to/work under direct supervision of the Submarine Navigation Managers.

DoD Relationship**Group Title**Navigation, Communication, 110200
and Countermeasure, N.E.C.**DoD Code****O*NET Relationship****Occupation Title**Electrical and Electronics
Repairers, Commercial and
Industrial Equipment**SOC Code**

49-2094.00

Job FamilyInstallation, Maintenance, and
Repair**Skills***Troubleshooting**Repairing**Equipment Maintenance**Reading Comprehension**Critical Thinking**Mathematics**Operation and Control**Systems Evaluation**Systems Analysis**Complex Problem Solving***Abilities***Written Comprehension**Inductive Reasoning**Deductive Reasoning**Extent Flexibility**Multi-limb Coordination**Problem Sensitivity**Information Ordering**Mathematical Reasoning**Finger Dexterity**Number Facility***ADMINISTRATION****Paygrade**

E4

Task Type

CORE

Task Statements

Audit engineering documents (e.g., schematics, Technical Variance Documents (TVD), etc.)

E4

CORE

Convert between Greenwich Mean Time (GMT) and Zone Time (ZT)

E5

CORE

Create Quality Assurance (QA) packages

E4

CORE

Interpret schematic diagrams

E5

CORE

Manage navigation division maintenance programs

E4

CORE

Perform records management of navigation messages (e.g., Operational Orders (OPORD), Operations Schedule (OPSKED), Submarine Notices (SUBNOTE), etc.)

E5

CORE

Prepare navigational information data packages

E5

CORE

Prepare piloting and operations briefs

E4

CORE

Supervise colors

CHART PREPARATIONS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Create parameters for Submerged Navigation Envelope (SNE) (e.g., cross track error, red/yellow sounding, maximum operating depth, etc.)
E4	CORE	Establish voyage plans (e.g., Plan of Intended Movement (PIM), departure/arrival, Speed of Advance (SOA), etc.)
E4	CORE	Extract information from Naval messages (e.g., Operational Orders (OPORD), Operations Schedules (OPSKED), Submarine Notices (SUBNOTE), etc.)
E4	CORE	Extract modified chart data information from navigation publications
E4	CORE	Manage navigation chart and publication allowances
E4	CORE	Plot moving havens
E4	CORE	Plot navigational hazards (e.g., danger ranges, danger bearings, shoal water, etc.)
E4	CORE	Prepare charts for navigation (e.g., voyage plan checklists, piloting checklists, etc.)
E4	CORE	Select charts for Navigation Plan (NAVPLAN)
E4	CORE	Update nautical charts (e.g., Electronic Navigational Chart (ENC), Submarine Electronic Navigation Chart (SMENC), etc.)

COMMUNICATIONS AND ALARM SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Derig shore telephone lines
E4	CORE	Install Portable Ship Control Units (PSCU)
E5	CORE	Perform corrective maintenance on alarm switchboards
E5	CORE	Perform corrective maintenance on liquid level alarm sensing devices
E5	CORE	Perform corrective maintenance on Portable Ship Control Units (PSCU)
E5	CORE	Perform corrective maintenance on pressure alarm sensing devices
E5	CORE	Perform corrective maintenance on shore telephone systems
E5	CORE	Perform corrective maintenance on sound-powered telephone systems
E4	CORE	Perform preventive maintenance on alarm switchboards
E4	CORE	Perform preventive maintenance on liquid level alarm sensing devices
E4	CORE	Perform preventive maintenance on pressure alarm sensing devices
E4	CORE	Perform preventive maintenance on shore telephone systems
E4	CORE	Perform preventive maintenance on sound-powered telephone systems
E4	CORE	Program shore telephone systems
E4	CORE	Remove Portable Ship Control Units (PSCU)
E4	CORE	Rig shore telephone lines

ELECTRONIC NAVIGATION SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E5	CORE	Calibrate Electromagnetic (EM) log indicator transmitters
E4	CORE	Configure navigation subsystem equipment software
E4	CORE	Establish Inertial Navigation Systems (INS) and subsystems required operating conditions (e.g., startup, shutdown, navigate, etc.)
E4	CORE	Establish radar operating conditions (e.g., startup, shutdown, etc.)

ELECTRONIC NAVIGATION SYSTEMS (CONT'D)

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Establish required Electronic Chart Display and Information System (ECDIS) operating conditions (e.g., startup, shutdown, etc.)
E4	CORE	Evaluate Inertial Navigation Systems (INS) and subsystems performance
E5	CORE	Evaluate Strategic Weapons System (SWS) navigation subsystems
E4	CORE	Input navigation and voyage plans into the Electronic Chart Display and Information System (ECDIS)
E4	CORE	Interpret fathometer displays
E4	CORE	Interpret Inertial Navigation System (INS) data
E4	CORE	Interpret radar displays
E5	CORE	Perform corrective maintenance on Electromagnetic (EM) log systems
E5	CORE	Perform corrective maintenance on gyrocompass systems
E5	CORE	Perform corrective maintenance on Inertial Navigation Systems (INS) and subsystems
E5	CORE	Perform corrective maintenance on navigation lights
E5	CORE	Perform corrective maintenance on radar systems (military and commercial)
E5	CORE	Perform corrective maintenance on Strategic Weapons System (SWS) navigation subsystems
E5	CORE	Perform corrective maintenance on synchro signal amplifiers
E4	CORE	Perform preventive maintenance on Electromagnetic (EM) log systems
E4	CORE	Perform preventive maintenance on gyrocompass systems
E4	CORE	Perform preventive maintenance on Inertial Navigation Systems (INS) and subsystems
E4	CORE	Perform preventive maintenance on radar systems (military and commercial)
E4	CORE	Perform preventive maintenance on Strategic Weapons System (SWS) navigation subsystems
E4	CORE	Perform preventive maintenance on synchro signal amplifiers

GENERAL ELECTRICAL SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Establish Central Atmosphere Monitoring System (CAMS) conditions (e.g., startup, shutdown, standby, etc.)
E4	CORE	Manage red hat Linux-based systems
E5	CORE	Perform corrective maintenance on Central Atmosphere Monitoring System (CAMS) equipment
E5	CORE	Perform corrective maintenance on fiber optics systems
E5	CORE	Perform corrective maintenance on flow meter systems
E5	CORE	Perform corrective maintenance on mast position indication system components
E5	CORE	Perform corrective maintenance on pressure sensing devices
E5	NON-CORE	Perform corrective maintenance on ship's entertainment systems
E5	CORE	Perform corrective maintenance on synchro repeaters
E5	CORE	Perform corrective maintenance on Tank Level Indicator (TLI) system components

GENERAL ELECTRICAL SYSTEMS (CONT'D)

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E5	CORE	Perform corrective maintenance on valve control system components
E5	CORE	Perform corrective maintenance on valve position indicating system components
E4	CORE	Perform preventive maintenance on fiber optics systems
E4	CORE	Perform preventive maintenance on flow meter systems
E4	CORE	Perform preventive maintenance on mast position indication system components
E4	CORE	Perform preventive maintenance on pressure sensing devices
E4	CORE	Perform preventive maintenance on ship's entertainment systems
E4	CORE	Perform preventive maintenance on synchro repeaters
E4	CORE	Perform preventive maintenance on Tank Level Indicator (TLI) systems
E4	CORE	Perform preventive maintenance on temperature monitoring systems
E4	CORE	Perform preventive maintenance on valve control system components
E4	CORE	Perform preventive maintenance on valve position indicating system components

NAVIGATION AND PILOTING

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Advise Officer of the Deck (OOD) of chain scope required for anchoring
E4	CORE	Advise Officer of the Deck (OOD) of ocean depth and bottom (e.g., while at anchor, during piloting, during submerged operations, etc.)
E4	CORE	Calculate environmental effects on ship's movements (e.g., wind, tide, set and drift, etc.)
E4	CORE	Calculate gyrocompass error
E4	CORE	Compare fathometer readings with charts
E4	CORE	Compare gyrocompass and inertial headings
E4	CORE	Compute advance and transfer
E4	CORE	Compute azimuths
E4	CORE	Compute course and speed made good
E4	CORE	Compute position uncertainty
E4	CORE	Compute radar and visual offset
E4	CORE	Convert between relative bearings and true bearings
E4	CORE	Correlate speed, time, and distance
E4	CORE	Evaluate radar information
E4	CORE	Evaluate ship's navigation and piloting information
E4	CORE	Fix ship's position (e.g., bearing and range to single point, latitude/longitude, multiple soundings, etc.)
E4	CORE	Identify reduced visibility situations
E4	CORE	Identify signal flags and pennant displays
E4	CORE	Interpret navigation sound signals (e.g., bell, gong, whistle, etc.)

POWER GENERATION AND DISTRIBUTION SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E5	CORE	Perform corrective maintenance on Action Cut-Out (ACO) switchboard
E5	CORE	Perform corrective maintenance on Interior Communications (IC) and subsystems (e.g., Integrated Communication System (ICS), Army-Navy Wired Interior Communication (ANWIC), sound-powered phones, shore phones, etc.)

SHIP CONTROL SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E5	CORE	Perform corrective maintenance on Ballast Control Panels (BCP) and subsystems
E5	CORE	Perform corrective maintenance on depth control systems
E5	CORE	Perform corrective maintenance on depth sensing systems
E5	CORE	Perform corrective maintenance on Ship Control Panels (SCP) and subsystems
E5	CORE	Perform corrective maintenance on ship's angle indicator systems
E5	NON-CORE	Perform corrective maintenance on Ship's Control Station (SCS) and subsystems
E5	CORE	Perform corrective maintenance on ship's control system components
E4	CORE	Perform preventive maintenance on Ballast Control Panels (BCP) and subsystems
E4	CORE	Perform preventive maintenance on depth control systems
E4	CORE	Perform preventive maintenance on depth sensing systems
E4	CORE	Perform preventive maintenance on Ship Control Panels (SCP) and subsystems
E4	NON-CORE	Perform preventive maintenance on Ship's Control Station (SCS) and subsystems
E4	CORE	Perform preventive maintenance on ship's control system components

Job Title**Submarine Navigation Manager****Job Code****001192****Job Family**

Installation, Maintenance, and Repair

NOC

TBD

Short Title (30 Characters)

SUBMARINE NAVIGATION MANAGER

Short Title (14 Characters)

SUB NAV MGR

Pay Plan

Enlisted

Career Field

ETV

Other Relationships and Rules

NEC TXXX, 7XXX series and other NECs as assigned

Job Description

Submarine Navigation Managers develop and evaluate navigation training; audit division records; coordinate division maintenance and equipment modifications; draft and review Naval correspondence; develop watch bills and shipboard navigation instructions; evaluate navigation team performance; supervise maintenance quality control; supervise the repair of electronic systems and subsystems; use accounting procedures to maintain control of inventories and work flow; estimate time and support required for repair of equipment; provide technical and supervisory liaison between work centers and external entities; certify inventory and update electronic navigation charts and publications; review navigation plans and voyage plans based on assigned operational tasking; train and supervise the Submarine Navigation Operators and Submarine Navigation Technicians in the performance of their assigned tasks and duties; train and advise the Officer of the Deck (OOD), Navigator, and Commanding Officer regarding the Navigation Rules and Regulations, current operations, and navigation requirements; apply navigational and technical expertise as senior ETVs.

DoD Relationship**Group Title**Navigation, Communication, 110200
and Countermeasure, N.E.C.**DoD Code****O*NET Relationship****Occupation Title**First-Line Supervisors of
Mechanics, Installers, and Repairers**SOC Code**

49-1011.00

Job FamilyInstallation, Maintenance, and
Repair**Skills***Critical Thinking**Complex Problem Solving**Coordination**Reading Comprehension**Management of Personnel Resources**Judgment and Decision Making**Management of Material Resources**Writing**Mathematics**Operation and Control***Abilities***Written Comprehension**Deductive Reasoning**Information Ordering**Inductive Reasoning**Selective Attention**Problem Sensitivity**Written Expression**Oral Expression**Fluency of Ideas**Mathematical Reasoning***ADMINISTRATION****Paygrade****Task Type****Task Statements**

E4

CORE

Audit engineering documents (e.g., schematics, Technical Variance Documents (TVD), etc.)

E6

CORE

Audit equipment service logs (e.g., Central Atmosphere Monitoring System (CAMS), Ring Laser Gyro Navigator (RLGN), Ship Control Station (SCS), etc.)

E6

CORE

Audit navigation records (e.g. deck logs, Electronic Chart Display and Information System (ECDIS) logs, position logs, fathometer logs, etc.,)

E7

CORE

Audit Quality Assurance (QA) packages

E6

CORE

Brief navigation operations and piloting requirements

E6

CORE

Evaluate navigation exercises

E6

CORE

Evaluate piloting team performance

E4

CORE

Interpret schematic diagrams

E5

CORE

Manage navigation division maintenance programs

E5

CORE

Manage Preventive Maintenance Management Programs (PMMP)

E6

CORE

Plan operational missions (e.g., strategic patrols, coordinated operations, transits, etc.)

E5

CORE

Prepare local changes to navigation procedures (e.g., Standard Maintenance Procedures (SMP), Maintenance Requirements Cards (MRC), etc.)

ADMINISTRATION (CONT'D)

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E5	CORE	Prepare Naval messages (e.g., Operational Orders (OPORD), Operations Schedules (OPSKED), Submarine Notices (SUBNOTE), etc.)
E7	CORE	Prepare navigation exercises
E5	CORE	Prepare piloting and operations briefs
E4	CORE	Supervise colors
E5	NON-CORE	Supervise Quality Assurance (QA) testing procedures
E7	CORE	Verify local changes to navigation procedures (e.g., Standard Maintenance Procedures (SMP), Maintenance Requirements Cards (MRC), etc.)
E6	CORE	Verify Quality Assurance (QA) packages

CHART PREPARATIONS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E6	CORE	Certify navigation plans
E4	CORE	Establish voyage plans (e.g., Plan of Intended Movement (PIM), departure/arrival, Speed of Advance (SOA), etc.)
E4	CORE	Extract modified chart data information from navigation publications
E4	CORE	Manage navigation chart and publication allowances
E4	CORE	Select charts for Navigation Plan (NAVPLAN)

ELECTRONIC NAVIGATION SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Configure navigation subsystem equipment software
E4	CORE	Establish Inertial Navigation Systems (INS) and subsystems required operating conditions (e.g., startup, shutdown, navigate, etc.)
E4	CORE	Evaluate Inertial Navigation Systems (INS) and subsystems performance
E4	CORE	Interpret fathometer displays
E4	CORE	Interpret Inertial Navigation System (INS) data
E4	CORE	Interpret radar displays

NAVIGATION AND PILOTING

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Advise Officer of the Deck (OOD) of chain scope required for anchoring
E4	CORE	Advise Officer of the Deck (OOD) of ocean depth and bottom (e.g., while at anchor, during piloting, during submerged operations, etc.)
E6	NON-CORE	Conduct strike group operations
E4	CORE	Evaluate ship's navigation and piloting information
E6	CORE	Supervise navigation teams