

CHAPTER 7



AVIATION STRUCTURAL MECHANIC (SAFETY EQUIPMENT) (AME)

NAVPERS 18068F-7J
Change 103

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NAVY ENLISTED OCCUPATIONAL STANDARD
FOR
AVIATION STRUCTURAL MECHANIC (SAFETY EQUIPMENT) (AME)



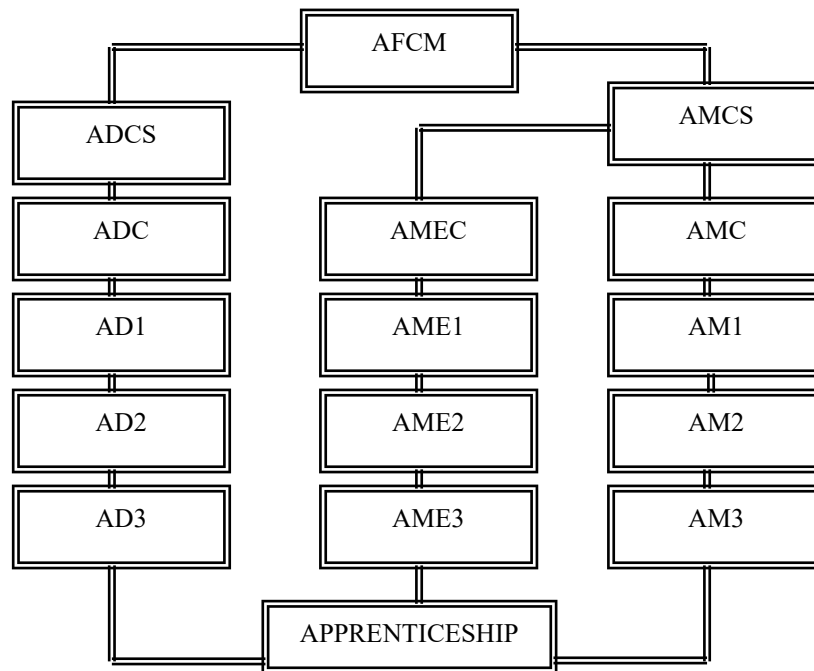
SCOPE OF RATING

Aviation Structural Mechanics (Safety Equipment) (AME) maintain ejection seats, canopy jettison components, and environmental control, fire extinguishing, and associated life support systems; maintain gaseous and liquid oxygen, cockpit/cabin pressurization, heating and cooling, and ventilation systems, and avionics cooling, and anti-gravity components; maintain utility systems and associated lines, fittings, valves, control mechanisms, oxygen gauges, converters, and regulators; inspect, remove, and install ejection seats and associated components; inspect, remove, and install explosive devices; rig and adjust canopy assemblies; operate and maintain Liquid Oxygen (LOX), gaseous oxygen and nitrogen systems, and Support Equipment (SE); and perform daily, pre-flight, post-flight, conditional and other periodic aircraft inspections.

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 7.

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**Aviation Environmental and Egress Technician****Job Code****001955****Job Family**

Transportation and Material Moving

NOC

TBD

Short Title (30 Characters)

AVIA ENVIRONMENTAL EGRESS TEC

Short Title (14 Characters)

SFTY EQUI TECH

Pay Plan

Enlisted

Career Field

AME

Other Relationships and Rules

NEC EXXX series and other NECs as assigned

Job Description

Aviation Environmental and Egress Technicians maintain and repair aircraft systems such as: ejection seats, crash worthy seats, utility systems, furnishings, and canopy systems; maintain gaseous and Liquid Oxygen (LOX) and nitrogen systems and Environmental Control Systems (ECS) and subsystems; maintain ordnance and manage explosive devices (i.e., Cartridge Actuated Devices (CAD) and Propellant Actuated Devices (PAD) etc.); configure aircraft for flight schedules; manage scheduled and unscheduled maintenance; and perform daily, pre-flight, post-flight, conditional and other periodic aircraft inspections.

DoD RelationshipGroup Title

Aircraft Structures

DoD Code

160300

O*NET RelationshipOccupation Title

Aviation Inspectors

SOC Code

53-6051.01

Job Family

Transportation and Material Moving

Skills*Reading Comprehension**Equipment Maintenance**Quality Control Analysis**Equipment Selection**Complex Problem Solving**Systems Analysis**Troubleshooting**Operation and Control**Operation Monitoring**Management of Material Resources***Abilities***Manual Dexterity**Originality**Problem Sensitivity**Selective Attention**Inductive Reasoning**Speed of Closure**Perceptual Speed**Time Sharing**Written Comprehension**Category Flexibility***CORROSION CONTROL****Paygrade**

E4

Task Type

CORE

Task Statements

Clean aircraft, Support Equipment (SE), and aircraft related equipment

E4

CORE

Inspect aircraft and aircraft components for corrosion

E4

NON-CORE

Perform aircraft, Support Equipment (SE), and aircraft related equipment preservation/de-preservation

E4

CORE

Perform corrosion prevention procedures

E4

NON-CORE

Perform emergency reclamations

E4

CORE

Treat aircraft and components for corrosion

EGRESS/EMERGENCY SYSTEMS**Paygrade**

E4

Task Type

CORE

Task Statements

Arm Deployable Flight Incident Recorder Set (DFIRS) panels

E4

CORE

Arm emergency canopy system components

E4

CORE

Arm fire bottles

E4

CORE

De-arm Deployable Flight Incident Recorder Set (DFIRS) panels

E4

CORE

De-arm emergency canopy system components

E4

CORE

De-arm fire bottles

E5

CORE

Inspect Deployable Flight Incident Recorder Set (DFIRS) panels

E5

CORE

Inspect Dry Bay Fire Suppression Systems (DBFSS) and components

EGRESS/EMERGENCY SYSTEMS (CONT'D)

<u>Pavgrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E5	CORE	Inspect ejection seat assembly components
E5	CORE	Inspect emergency canopy system components
E5	CORE	Inspect explosive system components
E5	CORE	Inspect fire extinguishing system components
E4	CORE	Inspect portable fire extinguishers
E5	CORE	Inspect seat pan assemblies
E4	CORE	Install Cartridge Actuated Devices/Propellant Actuated Devices (CAD/PADs)
E4	CORE	Install Deployable Flight Incident Recorder Set (DFIRS) panels
E4	CORE	Install Dry Bay Fire Suppression Systems (DBFSS) and components
E4	CORE	Install ejection seat assembly components
E4	CORE	Install emergency canopy system components
E4	CORE	Install explosive system components
E4	CORE	Install fire extinguishing system components
E4	CORE	Install portable fire extinguishers
E4	CORE	Install portable water Carbon Dioxide (CO2) cartridges
E4	CORE	Install seat pan assemblies
E5	CORE	Manage egress system checkout programs
E6	CORE	Manage explosive devices
E6	CORE	Manage explosive handling personnel qualification and certification programs
E4	CORE	Perform Dry Bay Fire Suppression Systems (DBFSS) operational checks
E4	CORE	Perform ejection seat systems maintenance (e.g., consumable part replacements, gaskets, screws, etc.)
E5	CORE	Perform fire extinguishing systems operational checks
E4	CORE	Remove Cartridge Actuated Devices/Propellant Actuated Devices (CAD/PAD)
E4	CORE	Remove Deployable Flight Incident Recorder Set (DFIRS) panels
E4	CORE	Remove Dry Bay Fire Suppression Systems (DBFSS) and components
E4	CORE	Remove ejection seat assembly components
E4	CORE	Remove emergency canopy system components
E4	CORE	Remove explosive system components
E4	CORE	Remove fire extinguishing system components
E4	CORE	Remove portable fire extinguishers
E4	CORE	Remove portable water Carbon Dioxide (CO2) cartridges
E4	CORE	Remove seat pan assemblies
E5	CORE	Supervise arming evolutions
E5	CORE	Supervise de-arming evolutions
E5	CORE	Supervise egress/emergency systems maintenance
E5	NON-CORE	Supervise emergency reclamations
E5	CORE	Supervise ordnance maintenance
E5	CORE	Test ejection seat assembly components

EGRESS/EMERGENCY SYSTEMS (CONT'D)

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E5	CORE	Troubleshoot Dry Bay Fire Suppression Systems (DBFSS)
E5	CORE	Troubleshoot ejection seat assembly components
E5	CORE	Troubleshoot fire extinguishing systems

MAINTENANCE CONTROL/ADMINISTRATION

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E6	NON-CORE	Assign aircraft to flight schedules
E6	NON-CORE	Certify aircraft Safe For Flight (SFF)
E5	CORE	Certify Cartridge Actuated Devices/Propellant Actuated Devices (CAD/PAD) fleet returns
E6	NON-CORE	Conduct maintenance meetings
E6	NON-CORE	Configure aircraft for flight schedules
E6	NON-CORE	Control aircraft acceptance inspections
E6	NON-CORE	Coordinate Flight Deck (FD)/Flight Line (FL) operations
E5	CORE	Create explosive components in configuration management (i.e., Cartridge Actuated Devices/Propellant Actuated Devices (CAD/PAD), Optimized Organized Maintenance Activity (OOMA))
E4	CORE	Document maintenance actions
E5	CORE	Generate Cartridge Actuated Devices/Propellant Actuated Devices (CAD/PADs) reports, web orders, and Service Life Extensions (SLE)
E6	NON-CORE	Manage Maintenance Control (MC) operations
E6	CORE	Manage scheduled maintenance
E4	CORE	Manage unscheduled maintenance
E7	NON-CORE	Prepare Planned Maintenance Intervals (PMI) for aircraft
E7	NON-CORE	Prepare Standard Depot Level Maintenance (SDLM) for aircraft
E4	CORE	Review Aircraft Discrepancy Books (ADB)
E6	CORE	Review Monthly Maintenance Plans (MMP)/Monthly Personnel Plans (MPP)
E6	CORE	Screen Visual Information Display System/Maintenance Action Forms (VIDS/MAF)
E5	CORE	Update Monthly Maintenance Plans (MMP)/Monthly Personnel Plans (MPP)
E5	CORE	Validate Cartridge Actuated Devices/Propellant Actuated Devices (CAD/PAD) virtual Ready Service Lockers (RSL)
E6	CORE	Verify Functional Check Flight (FCF) requirements
E5	CORE	Verify high time components
E5	CORE	Verify ordnance utilizing Cartridge Actuated Devices/Propellant Actuated Devices (CAD/PAD) program

MECHANICAL MAINTENANCE

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Inspect air conditioning components
E4	CORE	Inspect aircraft defog system components
E5	CORE	Inspect aircraft fire detection system components

MECHANICAL MAINTENANCE (CONT'D)

<u>Pavgrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Inspect anti-gravity system components
E4	CORE	Inspect anti-ice removal system components
E4	CORE	Inspect avionics ground cooling system components
E4	CORE	Inspect avionics Liquid Cooling Systems (LCS) and components
E4	CORE	Inspect cabin pressurization system components
E4	CORE	Inspect cabin seal system components
E4	CORE	Inspect canopy seal system components
E4	CORE	Inspect cockpit/cabin furnishings
E4	CORE	Inspect crash worthy seats
E4	CORE	Inspect crew relief systems
E4	CORE	Inspect de-icing system components
E4	CORE	Inspect engine bleed air leak detection system components
E4	CORE	Inspect engine bleed air system components
E4	CORE	Inspect Environmental Control Systems (ECS) components
E4	CORE	Inspect galley systems
E4	CORE	Inspect normal canopy system components
E4	CORE	Inspect potable water systems and components
E4	CORE	Inspect rain removal system components
E4	CORE	Inspect ram air system components
E4	CORE	Inspect smoke detection systems
E4	CORE	Inspect warm air system components
E4	CORE	Inspect wave guide system components
E4	CORE	Inspect weapons bay heat systems components
E4	CORE	Inspect windshield wash system components
E4	CORE	Install air conditioning components
E4	CORE	Install aircraft defog system components
E4	CORE	Install aircraft fire detection system components
E4	CORE	Install anti-gravity system components
E4	CORE	Install anti-ice removal system components
E4	CORE	Install avionics ground cooling system components
E4	CORE	Install avionics Liquid Cooling Systems (LCS) and components
E4	CORE	Install cabin pressurization system components
E4	CORE	Install cabin seal system components
E4	CORE	Install canopy seal system components
E4	CORE	Install cockpit/cabin furnishings
E4	CORE	Install crash worthy seats
E4	CORE	Install crew relief system components
E4	CORE	Install de-icing system components
E4	CORE	Install engine bleed air leak detection system components

MECHANICAL MAINTENANCE (CONT'D)

<u>Pavgrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Install engine bleed air system components
E4	CORE	Install Environmental Control Systems (ECS) components
E4	CORE	Install galley systems
E4	CORE	Install normal canopy system components
E4	CORE	Install potable water system components
E4	CORE	Install rain removal system components
E4	CORE	Install ram air system components
E5	CORE	Install shaft driven compressors
E4	CORE	Install smoke detection systems
E4	CORE	Install warm air system components
E4	CORE	Install wave guide system components
E4	CORE	Install weapons bay heat systems components
E4	CORE	Install windshield wash system components
E4	CORE	Perform air conditioning operational checks
E4	CORE	Perform aircraft defog system operational checks
E5	CORE	Perform aircraft fire detection system operational checks
E5	CORE	Perform anti-gravity system operational checks
E4	CORE	Perform anti-ice removal systems operational checks
E4	CORE	Perform avionics ground cooling systems operational checks
E4	CORE	Perform avionics Liquid Cooling Systems (LCS) operational checks
E4	CORE	Perform cabin pressurization system operational checks
E4	CORE	Perform cabin seal systems operational checks
E4	CORE	Perform canopy seal systems operational checks
E4	CORE	Perform cockpit/cabin furnishings operational checks
E4	CORE	Perform crash worthy seat operational checks
E4	CORE	Perform crew relief systems operational checks
E4	CORE	Perform de-icing systems operational checks
E4	CORE	Perform engine bleed air leak detection system operational checks
E4	CORE	Perform engine bleed air systems operational checks
E4	CORE	Perform Environmental Control Systems (ECS) operational checks
E4	CORE	Perform galley systems operational checks
E4	CORE	Perform normal canopy system operational checks
E4	CORE	Perform potable water systems operational checks
E4	CORE	Perform rain removal systems operational checks
E4	CORE	Perform ram air systems operational checks
E5	CORE	Perform shaft driven compressor operational checks
E4	CORE	Perform smoke detection system operational checks
E4	CORE	Perform warm air system operational checks
E4	CORE	Perform wave guide systems operational checks

MECHANICAL MAINTENANCE (CONT'D)

<u>Pavgrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Perform weapons bay heat systems operational checks
E4	CORE	Perform windshield wash systems operational checks
E4	CORE	Remove air conditioning components
E4	CORE	Remove aircraft defog system components
E4	CORE	Remove aircraft fire detection system components
E4	CORE	Remove anti-gravity system components
E4	CORE	Remove anti-ice removal system components
E4	CORE	Remove avionics ground cooling system components
E4	CORE	Remove avionics Liquid Cooling Systems (LCS) and components
E4	CORE	Remove cabin pressurization system components
E4	CORE	Remove cabin seal system components
E4	CORE	Remove canopy seal system components
E4	CORE	Remove cockpit/cabin furnishings
E4	CORE	Remove crash worthy seats
E4	CORE	Remove crew relief system components
E4	CORE	Remove de-icing system components
E4	CORE	Remove engine bleed air leak detection system components
E4	CORE	Remove engine bleed air system components
E4	CORE	Remove Environmental Control Systems (ECS) components
E4	CORE	Remove galley systems
E4	CORE	Remove normal canopy system components
E4	CORE	Remove potable water system components
E4	CORE	Remove rain removal system components
E4	CORE	Remove ram air system components
E4	CORE	Remove shaft driven compressors
E4	CORE	Remove smoke detection systems
E4	CORE	Remove warm air system components
E4	CORE	Remove wave guide system components
E4	CORE	Remove weapons bay heat systems components
E4	CORE	Remove windshield wash system components
E4	CORE	Repair cockpit/cabin furnishings
E4	CORE	Repair de-icing system components
E4	CORE	Rig aircraft defog system components
E5	CORE	Rig normal canopy systems
E5	CORE	Rig ram air system components
E4	CORE	Service shaft driven compressor with engine oil
E4	CORE	Test anti-gravity system components
E4	CORE	Test avionics ground cooling system
E4	CORE	Test avionics Liquid Cooling Systems (LCS) and components

MECHANICAL MAINTENANCE (CONT'D)

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Test cabin pressurization systems
E5	CORE	Troubleshoot air conditioning systems
E5	CORE	Troubleshoot aircraft defog systems
E5	CORE	Troubleshoot aircraft fire detection systems
E5	CORE	Troubleshoot anti-gravity systems
E5	CORE	Troubleshoot anti-ice removal system and components
E5	CORE	Troubleshoot avionics ground cooling systems
E5	CORE	Troubleshoot avionics Liquid Cooling Systems (LCS)
E5	CORE	Troubleshoot cabin pressurization systems
E5	CORE	Troubleshoot cabin seal systems
E5	CORE	Troubleshoot canopy seal systems
E5	CORE	Troubleshoot cockpit/cabin furnishings
E5	CORE	Troubleshoot crash worthy seats
E5	CORE	Troubleshoot crew relief systems
E5	CORE	Troubleshoot de-icing systems components
E5	CORE	Troubleshoot engine bleed air leak detection systems
E5	CORE	Troubleshoot engine bleed air systems
E5	CORE	Troubleshoot Environmental Control Systems (ECS)
E5	CORE	Troubleshoot galley systems
E5	CORE	Troubleshoot normal canopy systems
E5	CORE	Troubleshoot potable water systems
E5	CORE	Troubleshoot rain removal systems
E5	CORE	Troubleshoot ram air systems
E5	CORE	Troubleshoot shaft driven compressors
E5	CORE	Troubleshoot smoke detection systems
E5	CORE	Troubleshoot warm air systems
E5	CORE	Troubleshoot wave guide systems
E5	CORE	Troubleshoot weapons bay heat systems
E5	CORE	Troubleshoot windshield wash systems

OXYGEN, NITROGEN, AND LIQUID OXYGEN SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	NON-CORE	Inspect Cabin Pressure and Onboard Oxygen Generation System Monitoring System (CPOMS) components
E4	CORE	Inspect gaseous oxygen systems
E4	NON-CORE	Inspect Liquid Oxygen (LOX) systems and components
E5	CORE	Inspect nitrogen systems
E4	CORE	Inspect On-Board Oxygen Generating Systems (OBOGS)
E4	NON-CORE	Install Cabin Pressure and Onboard Oxygen Generation System Monitoring System (CPOMS) components

OXYGEN, NITROGEN, AND LIQUID OXYGEN SYSTEMS (CONT'D)

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Install gaseous oxygen system components
E4	NON-CORE	Install Liquid Oxygen (LOX) components
E4	CORE	Install nitrogen system components
E4	CORE	Install On-Board Oxygen Generating Systems (OBOGS) components
E4	CORE	Perform gaseous oxygen system operational checks
E4	NON-CORE	Perform Liquid Oxygen (LOX) system operational checks
E5	CORE	Perform nitrogen system operational checks
E4	CORE	Perform On-board Oxygen Generating Systems (OBOGS) operational checks
E4	NON-CORE	Remove Cabin Pressure and Onboard Oxygen Generation System Monitoring System (CPOMS) components
E4	CORE	Remove gaseous oxygen system components
E4	NON-CORE	Remove Liquid Oxygen (LOX) components
E4	CORE	Remove nitrogen system components
E4	CORE	Remove On-Board Oxygen Generating Systems (OBOGS) components
E4	CORE	Service nitrogen systems with nitrogen
E4	CORE	Service seat pan with oxygen
E4	NON-CORE	Test Cabin Pressure and Onboard Oxygen Generation System Monitoring System (CPOMS)
E5	NON-CORE	Troubleshoot Cabin Pressure and Onboard Oxygen Generation System Monitoring System (CPOMS)
E5	CORE	Troubleshoot gaseous oxygen systems
E5	NON-CORE	Troubleshoot Liquid Oxygen (LOX) systems
E5	CORE	Troubleshoot nitrogen systems
E5	CORE	Troubleshoot On-Board Oxygen Generating Systems (OBOGS)

QUALITY ASSURANCE (QA)

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E6	CORE	Audit Naval Aviation Maintenance Programs (NAMP)
E5	NON-CORE	Compile Technical Directives (TD)
E4	CORE	Comply with technical publication requirements
E5	CORE	Conduct aircraft acceptance inspections
E4	CORE	Conduct aircraft daily inspections
E4	CORE	Conduct aircraft special inspections
E4	CORE	Conduct aircraft transfer inspections
E4	CORE	Conduct aircraft turnaround inspections
E4	CORE	Conduct Collateral Duty Inspector (CDI) inspections
E5	CORE	Conduct Collateral Duty Quality Assurance Representative (CDQAR) inspections
E4	CORE	Conduct conditional inspections
E4	CORE	Conduct phase inspections
E6	CORE	Conduct Quality Assurance (QA) inspections

QUALITY ASSURANCE (QA) (CONT'D)

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Conduct Support Equipment (SE) inspections (e.g., daily, weekly, preoperational, etc.)
E4	CORE	Conduct visual inspections of aircraft internal components
E6	CORE	Coordinate phase maintenance
E5	CORE	Inspect egress/emergency systems maintenance
E5	CORE	Manage Aviators Breathing Oxygen (ABO) programs
E6	CORE	Manage Naval Aviation Maintenance Programs (NAMP)
E6	CORE	Monitor egress system checkout programs