

CHAPTER 7



AVIATION STRUCTURAL MECHANIC (AM)

NAVPERS 18068-7H
CH-68

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TABLE OF CONTENTS
AVIATION STRUCTURAL MECHANIC (AM)

SCOPE OF RATING	AM-3
GENERAL INFORMATION	AM-4
AVIATION STRUCTURAL MECHANIC INTERMEDIATE LEVEL	AM-5
CORROSION CONTROL	AM-5
FLIGHT CONTROL SYSTEMS	AM-5
HOSE AND TUBE REPAIR AND MANUFACTURING	AM-5
HYDRAULIC AND PNEUMATIC SYSTEMS	AM-6
LANDING GEAR AND RELATED SYSTEMS	AM-6
MAINTENANCE ADMINISTRATION	AM-6
QUALITY ASSURANCE	AM-6
STRUCTURAL REPAIR	AM-7
AVIATION STRUCTURAL MECHANIC ORGANIZATIONAL LEVEL	AM-8
CORROSION CONTROL	AM-8
FLIGHT CONTROL SYSTEMS	AM-8
HOSE AND TUBE REPAIR AND MANUFACTURING	AM-9
HYDRAULIC AND PNEUMATIC SYSTEMS	AM-9
LANDING GEAR AND RELATED SYSTEMS	AM-9
MAINTENANCE ADMINISTRATION	AM-9
QUALITY ASSURANCE	AM-10
STRUCTURAL REPAIR	AM-10

NAVY ENLISTED OCCUPATIONAL STANDARD

FOR

AVIATION STRUCTURAL MECHANIC (AM)



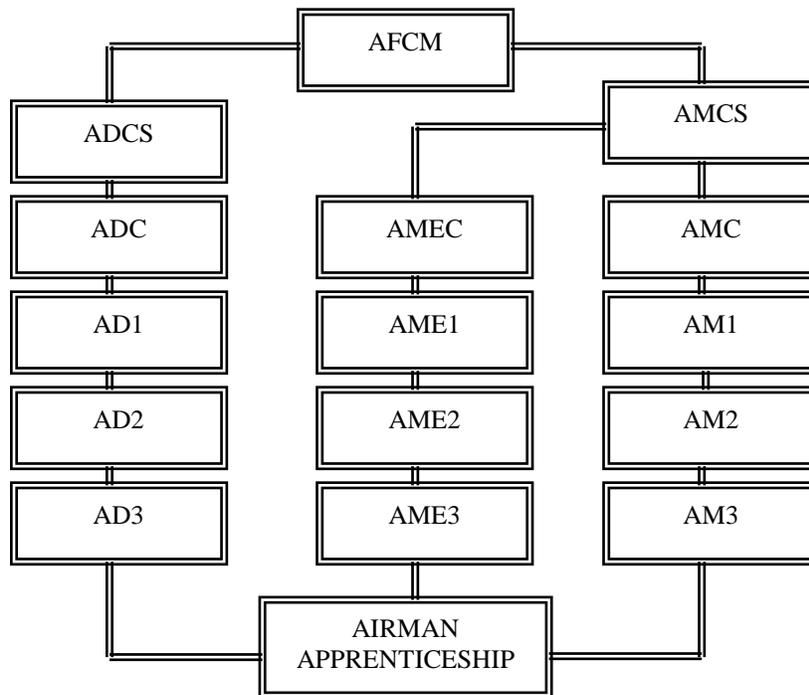
SCOPE OF RATING

Aviation Structural Mechanics (AM) maintain aircraft landing gear system, brakes and related pneumatic systems, reservoir pressurization, emergency actuating devices, pumps, valves, regulators, cylinders, lines and fittings; service pressure accumulators, emergency air bottles, oleo struts, reservoirs and master brake cylinders; inspect, remove and replace components of hydraulic systems; replace gaskets, packings, and wipers in hydraulic components; remove, repair and replace aircraft fuselage, wings, fixed and movable surfaces, airfoils, regular seats, wheels and tires, controls and mechanisms; remove, install and rig aircraft flight control surfaces; fabricate and assemble metal components and make minor repairs to aircraft skin; install rivets and metal fasteners; paint; weld; fabricate repairs for composite components; perform Non-Destructive Inspections (NDI); perform daily, pre-flight, post-flight and other periodic aircraft inspections; and supervise operation of airframe work centers.

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 Structural Mechanic Intermediate Level****Job Code****001805****Job Family**

Production

NOC

TBD

Short Title (30 Characters)

AVIATION STRUCTURAL MECH I-LVL

Short Title (14 Characters)

AVSTRUMEC I-LV

Pay Plan

Enlisted

Career Field

AM

Other Relationships and Rules

Not applicable, based upon the NEC assigned to the job (if any).

Job Description

Aviation Structural Mechanics Intermediate Level are responsible for all maintenance procedures on Metallic, Non-Metallic, Hydraulic, Pneumatic, Tire/Wheel, Utility, Flight Control System components, and corrosion prevention on Naval Aircraft parts and associated equipment. This individual also performs Non-Destructive Inspections and Welding.

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

Aircraft Structures

DoD Code

160300

Occupation TitleAircraft Structure, Surfaces,
Rigging, and Systems Assemblers**SOC Code**

51-2011.00

Job Family

Production

Skills*Equipment Maintenance**Equipment Selection**Repairing**Quality Control Analysis**Critical Thinking**Monitoring**Judgment and Decision Making**Operation and Control**Troubleshooting**Management of Material Resources***Abilities***Selective Attention**Manual Dexterity**Deductive Reasoning**Category Flexibility**Written Comprehension**Inductive Reasoning**Oral Expression**Written Expression**Control Precision**Multi-limb Coordination***CORROSION CONTROL****Paygrade****Task Type****Task Statements**

E4

CORE

Apply aircraft coatings

E4

CORE

Clean aircraft, support equipment, and aircraft related equipment

E4

CORE

Depreserve aircraft, support equipment, and aircraft related equipment

E4

CORE

Inspect aircraft and aircraft components for corrosion

E4

CORE

Maintain aircraft coatings

E6

CORE

Manage corrosion control

E6

CORE

Manage Respirator Protection Programs (RPP)

E4

CORE

Perform corrosion prevention procedures

E4

CORE

Perform emergency reclamations

E4

CORE

Preserve aircraft, support equipment, and aircraft related equipment

E4

CORE

Treat aircraft and components for corrosion

FLIGHT CONTROL SYSTEMS**Paygrade****Task Type****Task Statements**

E5

CORE

Inspect flight controls

E4

CORE

Repair flight control systems

E5

CORE

Troubleshoot flight control systems

HOSE AND TUBE REPAIR AND MANUFACTURING**Paygrade****Task Type****Task Statements**

E4

CORE

Install hose and tube assemblies

E4

CORE

Manufacture hose and tube assemblies

E4

CORE

Remove hose and tube assemblies

HOSE AND TUBE REPAIR AND MANUFACTURING (CONT'D)

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Repair hose and tube assemblies
E4	CORE	Test hose and tube assemblies

HYDRAULIC AND PNEUMATIC SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Analyze hydraulic fluid samples
E4	CORE	Collect hydraulic fluid samples
E5	CORE	Inspect aircraft pneumatic components
E5	CORE	Inspect hydraulic systems
E4	CORE	Maintain hydraulic test stands
E4	CORE	Repair aircraft pneumatic components
E4	CORE	Repair hydraulic components
E4	CORE	Test hydraulic components and assemblies
E4	CORE	Test pneumatic components and assemblies
E5	CORE	Troubleshoot hydraulic systems and components
E5	CORE	Troubleshoot pneumatic systems and components

LANDING GEAR AND RELATED SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Assemble landing gear tire and wheel assemblies
E4	CORE	Disassemble landing gear tire and wheel assemblies
E5	CORE	Inspect landing gear and related systems
E4	CORE	Repair landing gear and related systems
E5	CORE	Troubleshoot landing gear components and related systems

MAINTENANCE ADMINISTRATION

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E5	CORE	Brief Maintenance Control (MC)/Production Control (PC)
E5	CORE	Develop workcenter maintenance plans
E4	CORE	Document maintenance actions
E7	CORE	Manage Maintenance Control (MC)/Production Control (PC) operations
E7	CORE	Prepare Broad Arrow (BA) reports
E4	CORE	Process aircraft components for Non-Destructive Inspections (NDI)
E5	CORE	Update monthly maintenance plans

QUALITY ASSURANCE

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E6	CORE	Audit Naval Aviation Maintenance Programs (NAMP)
E4	CORE	Conduct aircraft special inspections
E5	CORE	Conduct Quality Assurance (QA) inspections
E4	CORE	Conduct Support Equipment (SE) inspections (e.g. daily, preoperational, etc.)
E6	CORE	Manage Naval Aviation Maintenance Programs (NAMP)
E6	CORE	Manage Non-Destructive Testing and Inspection (NDT/I) programs
E5	CORE	Supervise airframe and related systems maintenance

STRUCTURAL REPAIR

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E5	CORE	Conduct Non-Destructive Inspections (NDI)
E5	CORE	Conduct tap test inspections
E4	CORE	Fabricate components, structures, and sub-assemblies
E5	CORE	Inspect aircraft structural components
E5	CORE	Inspect aircraft structures
E4	CORE	Maintain structural repair equipment
E4	CORE	Repair aircraft structural components
E4	CORE	Repair aircraft structures
E4	CORE	Repair composite materials and components
E4	CORE	Weld aircraft components and Support Equipment (SE)

Job Title**Aviation Structural Mechanic Organizational Level****Job Code****001862****Job Family**

Installation, Maintenance, and Repair

NOC

TBD

Short Title (30 Characters)

AVIATION STRUCTURAL MECH O-LVL

Short Title (14 Characters)

AVSTR OLV

Pay Plan

Enlisted

Career Field

AM

Other Relationships and Rules

NEC 83XX/88XX series

Job Description

Aviation Structural Mechanics Organizational Level are responsible for all maintenance procedures on the Metallic, Non-Metallic Fuel Cell, Hydraulic, Pneumatic, Landing Gear, Utility, Flight Control Systems, and corrosion prevention on Naval Aircraft.

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

Aircraft Structures

DoD Code

160300

Occupation Title

Aircraft Mechanics and Service Technicians

SOC Code

49-3011.00

Job Family

Installation, Maintenance, and Repair

Skills*Equipment Maintenance**Equipment Selection**Repairing**Quality Control Analysis**Complex Problem Solving**Critical Thinking**Judgment and Decision Making**Monitoring**Reading Comprehension**Troubleshooting***Abilities***Selective Attention**Manual Dexterity**Deductive Reasoning**Multi-limb Coordination**Category Flexibility**Written Comprehension**Inductive Reasoning**Oral Expression**Problem Sensitivity**Speech Clarity***CORROSION CONTROL****Paygrade****Task Type****Task Statements**

E4

CORE

Apply aircraft coatings

E4

CORE

Clean aircraft, support equipment, and aircraft related equipment

E4

CORE

Depreserve aircraft, support equipment, and aircraft related equipment

E4

CORE

Inspect aircraft and aircraft components for corrosion

E4

CORE

Maintain aircraft coatings

E6

CORE

Manage corrosion control

E6

CORE

Manage Respirator Protection Programs (RPP)

E4

CORE

Perform corrosion prevention procedures

E4

CORE

Perform emergency reclamations

E4

CORE

Preserve aircraft, support equipment, and aircraft related equipment

E4

CORE

Treat aircraft and components for corrosion

FLIGHT CONTROL SYSTEMS**Paygrade****Task Type****Task Statements**

E5

CORE

Inspect flight controls

E4

CORE

Install flight controls

E4

CORE

Maintain flight control systems

E4

CORE

Remove flight controls

E4

CORE

Repair flight control systems

E5

CORE

Troubleshoot flight control systems

HOSE AND TUBE REPAIR AND MANUFACTURING

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Install hose and tube assemblies
E4	CORE	Remove hose and tube assemblies
E4	CORE	Repair hose and tube assemblies

HYDRAULIC AND PNEUMATIC SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E4	CORE	Analyze hydraulic fluid samples
E4	CORE	Collect hydraulic fluid samples
E5	CORE	Inspect aircraft pneumatic components
E5	CORE	Inspect hydraulic systems
E4	CORE	Install aircraft hydraulic components
E4	CORE	Install aircraft pneumatic components
E4	CORE	Maintain aircraft hydraulic systems
E4	CORE	Maintain aircraft pneumatic systems
E4	CORE	Remove aircraft hydraulic components
E4	CORE	Remove aircraft pneumatic components
E5	CORE	Troubleshoot hydraulic systems and components
E5	CORE	Troubleshoot pneumatic systems and components

LANDING GEAR AND RELATED SYSTEMS

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E5	CORE	Inspect landing gear and related systems
E4	CORE	Install landing gear and related systems
E4	CORE	Maintain landing gear and related systems
E4	CORE	Remove landing gear and related systems
E4	CORE	Repair landing gear and related systems
E5	CORE	Troubleshoot landing gear components and related systems

MAINTENANCE ADMINISTRATION

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E7	CORE	Assign aircraft to missions
E7	CORE	Brief flight crews
E5	CORE	Brief Maintenance Control (MC)/Production Control (PC)
E7	CORE	Conduct maintenance briefs
E7	CORE	Coordinate Flight Deck (FD)/Flight Line (FL) operations
E5	CORE	Develop workcenter maintenance plans
E4	CORE	Document maintenance actions
E7	CORE	Manage Maintenance Control (MC)/Production Control (PC) operations
E4	CORE	Process aircraft components for Non-Destructive Inspections (NDI)
E7	CORE	Release aircraft safe for flight
E4	CORE	Review Aircraft Discrepancy Books (ADB)
E5	CORE	Update monthly maintenance plans
E6	CORE	Verify Functional Check Flight (FCF) requirements

QUALITY ASSURANCE

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E6	CORE	Audit Naval Aviation Maintenance Programs (NAMP)
E5	CORE	Conduct aircraft acceptance inspections
E4	CORE	Conduct aircraft daily inspections
E4	CORE	Conduct aircraft special inspections
E5	CORE	Conduct aircraft transfer inspections
E4	CORE	Conduct aircraft turnaround inspections
E5	CORE	Conduct conditional inspections
E4	CORE	Conduct phase inspections
E5	CORE	Conduct Quality Assurance (QA) inspections
E4	CORE	Conduct Support Equipment (SE) inspections (e.g. daily, preoperational, etc.)
E6	CORE	Manage Naval Aviation Maintenance Programs (NAMP)
E5	CORE	Supervise airframe and related systems maintenance

STRUCTURAL REPAIR

<u>Paygrade</u>	<u>Task Type</u>	<u>Task Statements</u>
E5	CORE	Conduct tap test inspections
E4	CORE	Fabricate components, structures, and sub-assemblies
E5	CORE	Inspect aircraft fuel cells
E5	CORE	Inspect aircraft structural components
E5	CORE	Inspect aircraft structures
E4	CORE	Install aircraft structures
E4	CORE	Maintain aircraft fuel cells
E4	CORE	Maintain aircraft structural components
E4	CORE	Maintain aircraft structures
E4	CORE	Maintain in-flight refueling pod systems
E4	CORE	Maintain structural repair equipment
E5	CORE	Remove aircraft structures
E4	CORE	Repair aircraft fuel systems
E4	CORE	Repair aircraft structural components
E4	CORE	Repair aircraft structures
E4	CORE	Repair composite materials and components