



YEARS OF SERVICE	CAREER MILESTONES	AVERAGE TIME TO ADVANCE	rollers, distribution switchboa COMMISSIONING OR OTHER SPECIAL PROGRAMS	SEA/SHORE FLOW	TYPICAL CAREER PATH DEVELOPMENT
27-30	EMCM	23.4 Yrs	CSEL, ECM, Brig, Senior Enl Academy (Instructor)	36	4 <sup>th</sup> Shore Tour Billet: CSEL, ECM/TECHAD, Dir. of Training, CNE staff advisor Duty: BUPERS, Schoolhouse, ATG/Inspector i.e. (TYCOM Insp. Team) IMA/F Qualification: MTS, ATS, SEA/SEL
23-27	EMCM EMCS	23.4 Yrs 18.5	CSEL	48	4 <sup>th</sup> Sea Tour Billet: CSEL, DLCPO, LCPO, 3MC Duty: Ship/Squadron/ Battalion/ INSURV, NSW Qualification: SW, AW, SCW, EXW, ETT, DCTT, 3MTT, SEA/SEL, EDO/EOOW, 3MC
20-23	EMCM EMCS EMC	23.4 Yrs 18.5 13.4	CWO, CSEL, ECM, Brig	36	3 <sup>rd</sup> Shore Tour Billet: CSEL, ECM/TECHAD, LCPO, Instructor, RDC Duty: BUPERS, NSW, Schoolhouse, ATG/Inspector i.e. (TYCOM Insp. Team) IMA/F, Recruiting, RMC Qualification: MTS, ATS, SEA/SEL, Instructor
17-20	EMCS EMC EM1	18.5 Yrs 13.4 8.5	CWO, OCS, MECP, CSEL, DAPA, USS CONSTITUTION	48	3 <sup>rd</sup> Sea Tour Billet: LPO, DLCPO, LCPO, 3MC Duty: Ship, NSW, or Squadron/Battalion/INSURV Qualification: SW, AW, SCW, EXW, ETT, DCTT, 3MTT, "C" /"D" School, EDO/EOOW, SDV/DCS Tech, DDS Tech, SDV/DCS Sup





YEARS OF	CAREER	AVERAGE	COMMISSIONING OR	SEA/SHORE	TYPICAL CAREER
SERVICE	MILESTONES	TIME TO ADVANCE	OTHER SPECIAL PROGRAMS	FLOW	PATH DEVELOPMENT
14-17	EMC EM1	13.4 Yrs 8.5	LDO, CWO, OCS, MECP	36	2 <sup>nd</sup> Shore Tour Billet: LCPO/LPO, Instructor, RDC, Recruiter Duty: Schoolhouse, RTC, ATG, IMA/F, Recruiting, BUPERS Qualification: MTS, ATS, EM "C" / "D" School, SEA, Instructor, SDV/DCS Tech, DDS Tech, SDV/DCS Sup
9-14	EMC EM1 EM2	13.4 Yrs 8.5 4.1	LDO, OCS, NSW Special Boat Teams, ACUs, RIVRONs, Joint Commands	60	2 <sup>nd</sup> Sea Tour: Billet: WCS, LPO, 3MC Duty: Ship, NSW, JMAST or Squadron/Battalion. Qualification: SW, AW, SCW, EXW, ETT, DCTT, "C"/ "D" School, EDO/EOOW, SDV/DCS Tech, DDS Tech, SDV/DCS Sup, QAS
6-9	EM1 EM2 EM3	8.5 Yrs 4.1 2.4	STA-21, OCS, MECP, Naval Academy, USS CONSTITUTION, DAPA	36	1 <sup>st</sup> Shore Tour Billet: RDC, Recruiting, Instructor Duty: Schoolhouse, RTC, ATG, IMA/F, Recruiting Qualification: MTS, "C" or "D" School, Instructor, NSW
2-6	EM2 EM3	4.1 Yrs 2.4	NROTC, OCS, NSW Special Boat Teams, ACUs, RIVRONs, Joint Commands	53	1 <sup>st</sup> Sea Tour Billet: WCS, QAI, Operator/Maintenance Tech Duty: Ship or Squadron/Battalion Qualification: Repair EM, SW, AW, EPCC, SCW, EXW, ETT
1+/-	EM3 EMFN EMFA Accession Training	2.4 9 Months			Recruit Training and all schools or training events are required to be completed prior to reporting to their first operational command

Notes:

1. "A" School not required.

2. EM is a sea intensive rating (refer to Sea/Shore Flow front page). EMs are not required to hold a security clearance; however, there may be certain billets that require a clearance.

3. In rating shore duty is limited and is normally "A" or "C" School Instructors, ATG, RMCs/IMFs. Although not required, many Sailors can expect a tour as a Recruiter or Recruit Division Commander (RDC).





4. Tours at BUPERS and special billets such as; Instructor, NPC, Staff duty (CNSL, CNAL, NSW), Safety Center, INSURV, etc. require special screening.

5. Tour at BUPERS 3 as an Enlisted Community Manager or Enlisted Community Manager Technical Adviser are for high-performing E8s or E9s. It is a highly competitive tour requiring a thorough understanding of the Rating and manning and manpower policies. ECMs handle multiple Ratings affecting thousands of Sailors, adjudicate Career Waypoints applications, develop and present advancement quotas, school quotas, accession and strength policies, and initiatives for community health.

6. EM1/EMC/EMCSs on ships that are eligible are encouraged to qualify EOOW.

7. Advancement to EMCM requires citizenship and access to classified information prior to meeting advancement eligibility, per BUPERSINST 1430.16F.

8. NEC information:

a. U16A - Shipboard Engineering Plant Program Manager. Administers, manages and evaluates shipboard engineering programs. Recognizes engineering systems and major components external to the propulsion plant which comes under the cognizance of the Engineering Officer of the Watch (EOOW). Evaluates operating conditions and makes recommendations to the engineering officer.

b. U35A – Electrician's Mate Surface Ship Electrical Advanced Maintenance. Perform organizational corrective maintenance as well as provide a clear understanding of troubleshooting, fault isolation to the component level, and identification of medium voltage platforms safety awareness procedures regarding electrical and electronic equipment and systems. The hands-on knowledge and skills acquired will be used under limited supervision onboard naval vessels for all conditions of readiness.

c. U36A - LPD-17 Class Electric Plant Maintainer. Performs organizational level preventive and corrective maintenance, system alignment, troubleshooting and fault isolation within the Electric Plant. Utilizing technical manuals and Engineering Operations Sequencing Systems (EOSS) procedures, pipeline graduates will be able to perform tasks necessary to maintain the system with little or no Intermediate Level or Depot Level assistance.

d. U37A - LPD-17 Class Engineering Control System (ECS) Master Maintenance Technician Perform organizational level preventive maintenance and corrective maintenance, system alignment, troubleshooting and fault isolation making use of the Built-in Test (BIT) and applicable General Purpose Electronic Test Equipment (GPETE) on LPD-17 Class ECS. Supervise cross functional maintenance teams and coordinate ECS related repairs/actions to include Ship Wide Area Network (SWAN) and other system interfaces. Utilize technical manuals and Engineering Operational Sequencing System (EOSS) procedures. Perform tasks necessary to maintain the system with little or no Intermediate Level or Depot Level assistance.

e. U38A - CG-47/LHD-1 Electrical Component Maintenance Technician. Performs operational, preventive and corrective maintenance on CG-47/LHD-1 unique electrical components, 400HZ Static Frequency Converters and the SSM Degaussing System.

f. U39A - NAMTS Outside Electrical Repair Technician. Performs Navy Afloat Maintenance Training Strategy (NAMTS) intermediate-level electrical maintenance procedures on various shipboard equipment and systems in support of Fleet-directed requirements. Demonstrates knowledge of intermediate-level repair procedures, repair and maintenance standards, quality assurance specifications, and proper use of maintenance industrial machinery.

g. U40A - NAMTS Inside Electrical Repair Technician. Performs Navy Afloat Maintenance Training Strategy (NAMTS) intermediate-level maintenance procedures, inspecting, testing, and servicing motors/generators and correcting vibration on rotating machinery in support of Fleet-directed requirements. Demonstrates knowledge of intermediate level repair procedures, repair and maintenance standards, quality assurance specifications, and proper use of maintenance industrial machinery.





h. U41A - Minesweeping Electrician. Operates, tests, adjusts, and performs organizational level maintenance on automatic degaussing equipment and all specialized electrical equipment involved in magnetic and acoustic mine sweeping. Uses tools, meters, and special test equipment necessary to correctly test, align, troubleshoot, and repair electrical and electronic components of the automatic degaussing and mine sweeping equipment. Sets up the equipment to conform to various operational orders.

i. U42A - Steam Catapult Electrician. Performs organizational level maintenance on catapult and arresting gear systems, including synchros, repeaters, 110/220/440V electrical systems, contacts, relays, micro switches, series and parallel switches, pressure and temperature sensing switches, torque and gear limit switches, chronograph, and control console electrical functions. Reads and interprets electrical/mechanical drawings.

j. U43A - LAMPS MK III RAST/HRS Electrical Maintenance person. Performs maintenance on RAST system components. Repairs failed electrical and electronic components by removal and replacement to the lowest replaceable unit (LRU).

k. U44A - LSD-41/49 Class Advanced Engineering Control System (AECS-MCS) Maintenance Technician Performs organizational level preventive and corrective maintenance, troubleshooting and fault isolation procedures on the AECS onboard upgraded LSD 41/49 Class Ships. Training for the AECS includes: Machinery Control System (MCS), Propulsion Load Management Unit (PLMU), Local Area Network (LAN), On-board Trainer (OBT), and Ship Control System (SCS).

l. U45A - LSD-41/49 Class Electric Plant Maintainer. Performs organizational level preventive and corrective maintenance, system alignment, troubleshooting and fault isolation within the Electric Plant. Utilizing technical manuals and Engineering Operational Sequencing System (EOSS) procedures, pipeline graduates will be able to perform tasks necessary to maintain the system with little or no Intermediate Level or Depot Level assistance.

m. U55C - DDG 1000 Zumwalt Class Integrated Power Systems (IPS) Operations Journeyman Perform IPS operations relating to IPS watchstanding and maintenance duties at the journeyman level on board DDG 1000 Zumwalt class ships.

n. U55D - DDG 1000 ZUMWALT Class Integrated Power System (IPS) Electrical Maintenance Technician - Journeyman Perform IPS electrical maintenance relating to IPS watch-standing and electrical maintenance duties at the journeyman level on board DDG 1000 ZUMWALT class ships.

o. U56A - Electromagnetic Aircraft Launch System (EMALS)/Advance Arresting Gear (AAG) Electrician. Performs pre/post operational system checks, system operations and maintenance on electrical control systems of EMALS and AAG. Monitors and identifies conditions which may lead to an emergency and/or casualty, and initiates corrective and/or emergency procedures.

p. U58A - Deck Systems Electrical Technician Performs organizational electrical maintenance on various deck equipment and systems to include Amphibious Assault, UNREP, Anchoring and Hull Outfitting Equipment.

q. U60A - Advanced Degaussing Maintenance Technician. Performs operation, troubleshooting, and repair to the subassembly or component level for shipboard Advanced Degaussing Systems installed onboard CVN-77, CVN-78, DDG-1000, LCS-1, and LPD-17 Class ships.

r. U61A - LHA-6 (AMERICA)/LHD-8 (MAKIN ISLAND) Class Ship Machinery Control System (MCS) Maintainer Performs LHA-6 and LHD-8 Class Ship MCS advanced organizational and/or intermediate maintenance to the Lowest Repairable Unit (LRU) (circuit cards, power supplies, batteries, relay, fiber optic cable connectors, etc.) using the Built-In Test (BIT) and other supplementary data contained in technical manuals and maintenance documentation.

s. U62A - LHA-6 (AMERICA)/LHD-8 (MAKIN ISLAND) Class Ship Auxiliary Propulsion System (APS) Electrical Maintenance Technician Operates and performs advanced organizational and/or intermediate level electrical maintenance to the component level on LHA-6 and LHD-8 Class Ship APS.





t. U67A - Electrical Habitability Auxiliary Technician. Performs electrical preventive maintenance, troubleshooting and corrective maintenance tasks at the journeyman level on galley, laundry and solid waste processing equipment onboard all Naval Surface Ship classes.

u. U73A - LHA-6 (AMERICA) Class/LHD-8 (MAKIN ISLAND) Diesel Engine Electrical Technician. Operates and performs advanced organizational and/or intermediate electrical maintenance to the component level on LHA-6 Class, LHD-8 Class Diesel engine electrical systems.

v. 719B - NAMTS Shipboard Calibration Coordinator. Performs Navy Afloat Maintenance Training Strategy (NAMTS) intermediate level support procedures including inspecting, troubleshooting, and calibrating systems and associated components in support of Fleet-directed requirements. Demonstrates knowledge of intermediate-level repair procedures, repair and maintenance standards, and quality assurance specifications and a thorough understanding of NAVSEA Metrology and Calibration (METCAL); Test, Measurement, & Diagnostic Equipment (TMDE); Shipboard Instrumentation and Systems Calibration (SISCAL) programs; the hands-on execution of real calibration work; and the proper use of Organizational and Intermediate Maintenance industrial machinery.

w. 731B - LCAC Electrical Systems Maintenance Technician. Performs organizational and intermediate level maintenance on LCAC craft control systems.

x. 762A - Electrical Motor Rewinder. Rewinds AC and DC motor and generator stators, rotors, field coils, and armatures utilizing round wire or formed coils. Takes rewinding data, replaces brushes, adjusts brush rigging, dips, bakes, renews bearings, assembles, and test runs.

y. 764A - Shipboard Elevator Electrical Maintenance. Tests, inspects and performs organizational level maintenance on shipboard weapons and cargo handling elevators on a system and component level. Troubleshoots and repairs electronic/electrical systems and equipment, such as controllers, sensors, switches, and the electrical components of hydraulic/mechanical interfaces. Coordinates efforts with operators and maintainers of other ratings using or servicing the systems.

z. 765A - Physical/Dimensional Calibration Specialist Performs third echelon (MIRCS, FMCL, NCL) level duties involving physical, mechanical, plane and angular measurements and calibration, including flow and temperature measurement and calibration. Aligns, inspects, repairs, troubleshoots, modifies, and calibrates electro/mechanical test and monitoring systems (TAMS) using calibration and working standards.

aa. 811A - 3-M System Coordinator Responsible for the coordination of all facets of maintenance and material management (3-M) systems. Possesses the ability to implement, evaluate and coordinate the unit's planned maintenance systems (PMS). Responsible for the operation and management of the Maintenance Data Systems (MDS). Serves as the unit's availability manager.

9. Acronyms:

AAG – Advance Arresting Gear
ACU – Assault Craft Unit
ADS – Advanced Degaussing System
AIM – Advanced Induction Motor (DDG 1000)
AIMD – Air Intermediate Maintenance Detachment
AQAO – Assistant Quality Assurance Officer
ATG – Afloat Training Group
ATS – Afloat Training Specialist
CAO – Chief Auxiliary Operator (CVN)
CEW – Chief Electrical Watch (CVN)
CDO – Command Duty Officer
CHENG – Chief Engineer (Ship's Engineering Officer)
COW – Chief of the Watch (CVN)
CPOA – Chief Petty Officer Association





DCS - Dry Combat Submersible DCTT - Damage Control Training Team DDS - Dry Deck Shelter EAA - Engineering Assessment Atlantic EAP - Engineering Assessment Pacific ECS - Engineering Control System EDO - Engineering Duty Officer ELD - Enlisted Leadership Development EMALS - Electromagnetic Aircraft Launch System EOOW - Engineering Officer of the Watch EPCC – Electric Plant Control Console Operator ETT – Engineering Training Team FCPOA - First Class Petty Officer Association FRC – Fleet Readiness Center IFTP - Integrated Fight-Through Power system (DDG 1000) IMA – Intermediate Maintenance Activity IMF - Intermediate Maintenance Facility INSURV - Board of Inspection and Survey IPS – Integrated Power System (DDG 1000) JPME - Joint Professional Military Education JMAST- Joint Maritime Ashore Support Team LAMPS - Light Airborne Multipurpose System LCAC - Landing Craft Air Cushion LCS - Littoral Combat Ship LCU - Landing Craft Unit METCAL – Metrology and Calibration MTS - Master Training Specialist NAMTS - Navy Afloat Maintenance Training Strategy NEC - Navy Enlisted Classification NSW - Navy Special Warfare PACC - Propulsion and Auxiliaries Control Console Operator PCM – Power Conversion Modules (DDG 1000) PCU – Power Conditioning Unit (DDG 1000) PEM - Power Electronics Module (DDG 1000) PFM – Power Filter Module (DDG 1000) PLC - Programmable Logic Controller PMD – Propulsion Motor Drive (DDG 1000) PPME - Primary Professional Military Education QAI - Quality Assurance Inspector **OAO** – Quality Assurance Officer QAS - Quality Assurance Supervisor RAST - Recovery Assist, Secure and Traverse RCO - Readiness Control Officer (LCS EOOW equivalent) RDC – Recruit Division Commander RMC - Regional Maintenance Center SDO - Staff Duty Officer SDV - SEAL Delivery Vehicle SEA - Senior Enlisted Academy SEJPME - Senior Enlisted Joint Professional Military Education SEL – Senior Enlisted Leader SEPEC - Senior Enlisted Propulsion Engineering Course SISCAL - Shipboard Instrumentation and Systems Calibration SSEAMC - Surface Ship Electrical Advanced Maintenance Course TMDE - Test, Measurement, & Diagnostic Equipment





UPS – Uninterruptible Power Supply USMAP – United Services Military Apprenticeship Program

### Considerations for advancement from E6 to E7

**NOTE:** Intermediate Leader Development Course (ILDC) and Advanced Leader Development Course (ALDC) will be a prerequisite for advancement to E-6 and E-7 respectively, starting in calendar year 2025.

**NOTE:** Electrician's Mate is a sea duty intensive rating that may also be detailed to a variety of special duty billets throughout the fleet. Below entries assume assignment to units as an E-6 working within Engineering Department. It does not, however, preclude accomplishment of listed criteria at lower paygrades from meeting advancement milestones.

**NOTE:** Sailors assigned to Submarines tenders (AS) or Expeditionary mobile base (ESB) class ships are unable to obtain engineering qualifications due to having civilian ran engineering plant.

#### 1. Sea Assignments

- Fully Qualified
  - o Leadership of Sailors at sea with documented impact
  - o At least one warfare pin if assigned to an eligible command
  - $\circ$  Member of DCTT or ETT
  - o If assigned to CG, DDG, LCC, LHA, LHD, LPD, or MCM, qualified EPCC
  - o If assigned to CVN, qualified Chief Electrical Watch (CEW)
  - If assigned to LCS, qualified Engineering Plant Technician (EPT)
  - o If assigned to LCU or ACU, qualified Chief Engineer
- Best Qualified considerations
  - Division LPO
    - EE-Division LPO or acting LCPO are a plus
  - Qualified EOOW or RCO
  - Qualified EDO
  - If assigned to CVN, qualified Chief of the Watch (COW)
    - Qualified non-nuclear EOOW is a plus
  - If assigned to LCU or ACU, qualified Craftmaster
  - Qualified 3M 304 or above
  - Qualified QA 305 or above
  - o Command collateral duty with documented impact
    - FCPOA involvement
      - Holding cabinet position is a plus
  - Sailor 360 involvement
  - Completion of USMAP
  - Completion of PPME/JPME

#### 2. Shore Assignments

Fully Qualified

- o N/A
- Best Qualified
  - o Leadership of Sailors with documented impact
  - o If assigned as an instructor at a training command, qualified MTS or ATS
  - If assigned as RDC, qualified Ship's Training Team (STT)
    - Qualified Battle Stations Chief of the Deck is a plus
  - If at recruiting duty, qualified station LPO
  - If assigned to RMC, completion of NAMTS
  - Qualified CDO or SDO
  - o Command collateral duty with documented impact
  - FCPOA involvement





- Holding cabinet position is a plus
- Sailor 360 involvement
- Completion of USMAP
- Completion of PPME/JPME

### Considerations for advancement from E7 to E8

**NOTE:** Chief Petty Officer Leader Development Course (CPO-LDC) will be a prerequisite for advancement to E-8 commencing with the Fiscal Year 2026 Selection Board.

**NOTE:** Electrician's Mate is a sea duty intensive rating that may also be detailed to a variety of billets throughout the fleet. Below entries assume assignment to units as an E-7 working within Engineering Department. It does not, however, preclude accomplishment of listed criteria at lower paygrades from meeting advancement milestones.

**NOTE:** Sailors assigned to Submarines tenders (AS) or Expeditionary mobile base (ESB) class ships are unable to obtain engineering qualifications due to having civilian ran engineering plant.

- 1. Sea Assignments
  - Fully Qualified
    - Division LCPO
    - o At least one warfare pin if assigned to an eligible command
    - Member of DCTT or ETT
    - Qualified EOOW or RCO
    - Qualified EDO
    - o If assigned to CVN, qualified COW
    - If assigned to LCU or ACU, qualified Craftmaster
    - Qualified 3M LCPO/Division Officer (304)
    - Best Qualified considerations
      - EE-Division LCPO
        - Top Snipe/DLCPO are a plus
        - ETT or DCTT Coordinator
        - o If assigned to CVN, qualified non-nuclear EOOW is a plus
        - Qualified 3M 305 or above
        - Qualified QA 305 or above
        - o Command collateral duty with documented impact
        - CPOA involvement
          - Holding cabinet position is a plus
        - Sailor 360 involvement
        - o CPO Initiation Season involvement
          - Season lead is a plus
        - Graduate of SEA
        - ELD Facilitator
        - Completion of PPME/JPME/SEJPME
- 2. Shore Assignments
  - Fully Qualified
    - o N/A
  - Best Qualified

- Leadership of Sailors with documented impact
- o If assigned as an instructor at a training command, qualified MTS or ATS
  - If assigned as RDC, qualified Ship's Training Team (STT)
    - Qualified Battle Stations Chief of the Deck is a plus
- If at recruiting duty, qualified station LCPO
- If assigned to RMC, completion of NAMTS
- Qualified CDO or SDO
- o Command collateral duty with documented impact



- CPOA involvement
- Holding cabinet position is a plus
- Sailor 360 involvement
- o CPO Initiation Season involvement
  - Season lead is a plus
- Graduate of SEA
- ELD Facilitator
- Completion of PPME/JPME/SEJPME

#### Considerations for advancement from E8 to E9

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**NOTE:** Electrician's Mate is a sea duty intensive rating that may also be detailed to a variety of special duty billets throughout the fleet. Below entries assume assignment to units as an E-8 working within Engineering Department. It does not, however, preclude accomplishment of listed criteria at lower paygrades from meeting advancement milestones.

**NOTE:** Sailors assigned to Submarines tenders (AS) or Expeditionary mobile base (ESB) class ships are unable to obtain engineering qualifications due to having civilian ran engineering plant.

#### 1. Sea Assignments

- Fully Qualified
  - Division LCPO
  - o At least one warfare pin if assigned to an eligible command
  - Member of DCTT or ETT
  - Qualified EOOW or RCO
  - o Qualified EDO
  - If assigned to CVN, qualified COW
  - o If assigned to LCU or ACU, qualified Craftmaster
  - Qualified 3M LCPO/Division Officer (304)
  - Graduate of SEA
- Best Qualified considerations
  - EE-Division LCPO
    - Top Snipe/DLCPO are a plus
  - ETT or DCTT Coordinator
  - If assigned to CVN, qualified non-nuclear EOOW is a plus
  - Qualified 3M 305 or above
  - Qualified QA 305 or above
  - o Command collateral duty with documented impact
  - CPOA involvement
    - Holding cabinet position is a plus
  - Sailor 360 involvement
  - CPO Initiation Season involvement
    - Season lead is a plus
  - ELD Facilitator
  - Completion of PPME/JPME/SEJPME

#### 2. Shore Assignments

- Fully Qualified
  - o N/A
- Best Qualified

- o DLCPO
  - Served as SEL is a plus
- o If assigned as an instructor at a training command, qualified MTS or ATS
  - If assigned as RDC, qualified Ship's Training Team (STT)
    - Qualified Battle Stations Chief of the Deck is a plus
- If at recruiting duty, qualified station LCPO







- If assigned to RMC, completion of NAMTS 0
- 0
- Qualified CDO or SDO Command collateral duty with documented impact 0
- CPOA involvement 0
  - Holding cabinet position is a plus •
  - Sailor 360 involvement
- CPO Initiation Season involvement 0
  - Season lead is a plus
- Graduate of SEA 0

- ELD Facilitator 0
- Completion of PPME/JPME/SEJPME 0