



Machinery Repairmen (MR). MRs perform intermediate maintenance on assigned equipment and in support of other ships, requiring the skillful use of lathes, milling machines, boring mills, grinders, the power hacksaw and drill press, and various portable machines as well as measuring instruments in a machine shop.

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YEARS OF SERVICE	CAREER MILESTONES	AVERAGE TIME TO ADVANCE	COMMISSIONING OR OTHER SPECIAL PROGRAMS	SEA/SHORE FLOW	TYPICAL CAREER PATH DEVELOPMENT	
24-30	MRCM	20.0 Yrs	CSEL, CMDCM	36	4 <sup>th</sup> Shore Tour Billet: ECM/TECHAD, Training Manager, Instructor Duty: CNRMC, BUPERS, SWSC Qualification: CSEL, SEA	
21-24	MRCM MRCS	20.0 Yrs 20.0	CWO, CSEL, CMDCM CMDCS	36	4 <sup>th</sup> Sea Tour Billet: LCPO/DLCPO, 3MC Duty: Ship, NSW, LCAC, Expeditionary Qualification: CSEL, SW/AW/SCW/EXW, ETT/DCTT/3MTT, USMAP Journeyman Inside Machinist, Senior Enlisted Academy, NEC U31A, NEC U32A, NEC 829A, NEC 811A, 3M-306	
18-21	MRCS MRC	20.0 Yrs 14.4	CWO, CSEL, DAPA, CMDCS RDC, Recruiter	36	3 <sup>rd</sup> Shore Tour Billet: LCPO, 3MC, Ship Superintendent, RDC, Recruiter, Instructor, RMC, ASD, RTC, Recruiting Duty: Schoolhouse, RTC, Recruiting, IMA/F, FRC. Qualification: USMAP Journeyman Inside Machinist, NEC U31A, NEC U32A, NEC 829A, NEC 8RDC, NEC 803R, NEC 805A, NEC 803R, NEC 805A, NEC 8MTS, NEC 8SEA, NEC 811A, QA-308 Quality Assurance Supervisor (QAS), 3M-307 Ship's 3M-Coordinator, NAMTS Inside Machinist, NAMTS Pump Repair Technician	





YEARS OF SERVICE	CAREER MILESTONES	AVERAGE TIME TO ADVANCE	COMMISSIONING OR OTHER SPECIAL PROGRAMS	SEA/SHORE FLOW	TYPICAL CAREER PATH DEVELOPMENT
15-18	MRC MR1	14.4 Yrs 8.8	CWO	36	3 <sup>rd</sup> Sea Tour Billet: LCPO/LPO, 3MC, Duty: Ship, NSW, LCAC, Expeditionary Qualification: SW/AW/SCW/EXW, ETT/DCTT/3MTT, USMAP Journeyman Inside Machinist, NEC 8SEA, NEC U31, NEC U32A, NEC 829, NEC 811A, NAMTS Inside Machinist, NAMTS Inside Machinist, NAMTS Pump Repair Technician, QA-308 Quality Assurance Supervisor (QAS), 3M-306
12-15	MRC MR1	14.4 Yrs 8.8	LDO, CWO, OCS, DAPA, Brig, RDC, Recruiter, INSURV	36	2 <sup>nd</sup> Shore Tour Billet: LPO/LCPO, 3MA, Ship Superintendent, RDC, Recruiter, Instructor Duty: RMC, ASD, RTC, Recruiting, Schoolhouse Qualification: USMAP Journeyman Inside Machinist, NEC U31A, NEC U32A, NEC 829A, NEC 8RDC, NEC 803R, NEC 805A, NEC 803R, NEC 8SEA, NAMTS Inside Machinist, NAMTS Pump Repair Technician, QA-307 Work Center Supervisor (WCS), 3M-305 Dept Head (DH)/Dept 3M-Assistant (D3MA)





YEARS OF SERVICE	CAREER MILESTONES	AVERAGE TIME TO ADVANCE	COMMISSIONING OR OTHER SPECIAL PROGRAMS	SEA/SHORE FLOW	TYPICAL CAREER PATH DEVELOPMENT
8-12	MR1 MR2	8.8 Yrs 3.5	LDO, OCS	36	2 <sup>nd</sup> Sea Tour Billet: LPO, WCS, 3MA Duty: Ship, NSW, LCAC, Expeditionary Qualification: SW/AW/SCW/EXW, ETT/DCTT/3MTT, USMAP Journeyman Inside Machinist, NEC U31A - Advanced Machinery Repairman, NEC U32A - Computer Numerical Control, NEC 829A - Locksmith, NEC 811A, NAMTS Inside Machinist, NAMTS Pump Repair Technician, QA-306 Fleet Maintenance Activity (FMA) Planner, 3M-304 Division Officer (DIVO)
5-8	MR2 MR3	3.5 Yrs 2.3	STA-21, OCS, Brig	36	1 <sup>st</sup> Shore Tour Billet: Craftsman/Maintenance Person, Ship Superintendent, RDC, Recruiter, Instructor Duty: RMC, ASD, RTC, Recruiting, Schoolhouse Qualification: USMAP Journeyman Inside Machinist, NEC U31A, NEC U32A, NEC 829A, NEC 8RDC, NEC 803R, NEC 805A, NEC 8MTS, NAMTS Inside Machinist, NAMTS Inside Machinist, NAMTS Pump Repair Technician, QA-305 Quality Assurance Inspector (QAI), 3M-303 Work Center Supervisor (WCS)





YEARS OF SERVICE	CAREER MILESTONES	AVERAGE TIME TO ADVANCE	COMMISSIONING OR OTHER SPECIAL PROGRAMS	SEA/SHORE FLOW	TYPICAL CAREER PATH DEVELOPMENT
2-5	MR2 MR3	3.5 Yrs 2.3	Naval Academy, NROTC, OCS	48	1 <sup>st</sup> Sea Tour Billet: Craftsman/Maintenance Person Duty: Ship Qualification: SW/AW, NIMS Level 1, USMAP Journeyman Inside Machinist, NEC U31A, NEC U32A, NEC 829A, NAMTS Inside Machinist, NAMTS Pump Repair Technician QA-301 Craftsman and QA- 302 Controlled Material Petty Officer (CMPO), 3M- 301 Maintenance Person and 3M-302 Repair Parts Petty Officer (RPPO)
1+/-	MRFN MRFA Accession Training	1.1 Yrs			Recruit Training, "A" School

Notes:

1. "A" School is highly recommended.

2. MR is not a sea centric rating (refer to Sea/Shore Flow column).

3. MRs are not required to hold a security clearance, however, some billets may have security clearance requirements.

4. In rating shore duty is limited and are normally "A" or "C" School Instructors or at RMC or ASD. Many can expect a tour in Recruiting or as a Recruit Division Commander (RDC).

5. In rating sea duty is extremely limited for E7 and above and are normally CVN or AS. Many can expect a tour as a 3MC or Type 3 duty assignments.

6. Tours at CNO Priority Billets, NPC and BUPERS require special screening.

7. NEC information:

a. U31A - Advanced Machinery Repairmen perform calculations using basic algebra and trigonometry to manufacture spur, helical, bevel gears, and worm/worm wheels. Manufacture and repair precision parts from blueprints utilizing tool and cutter grinders, surface grinders, cylinder grinders, universal milling machines, optical comparators, surface finish analyzer, disintegrators, vertical turret lathes, and horizontal boring mils. Understanding the nature and physical properties of metal and alloys with demonstration and practice in metal testing, identification and heat treating.

b. U32A - Computer Numerically Controlled (CNC) Machinist understand the theory and application of Computer Numerically Controlled (CNC) lathes, milling machines and associated equipment utilizing Computer Aided Design (CAD), and Computer Aided Machining (CAM) software.





c. U33A - Navy Afloat Maintenance Training Strategy (NAMTS) Inside Machinist performs NAMTS intermediate-level maintenance procedures on marine machinery and auxiliary systems and equipment 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.

d. U34A - NAMTS outside Machinist Performs Navy Afloat Maintenance Training Strategy (NAMTS) intermediate-level on all types of main propulsion systems, equipment, and auxiliary machinery in support of Fleetdirected requirements. Demonstrates knowledge of intermediate-level repair procedures, repair and maintenance standards, quality assurance specifications, and proper use of maintenance industrial machinery.

e. 736B - NAMTS Pump Repair Technician performs Navy Afloat Maintenance Training Strategy (NAMTS) organizational and intermediate-level maintenance procedures, inspecting and repairing marine main propulsion and auxiliary pumps and associated equipment 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.

f. 829A - Locksmith Repairs locks, changes lock combinations, opens doors and safe locks, and makes new or duplicate keys. Takes apart padlocks, door and safe locks, and other types of locks using various hand tools including screwdrivers, cold chisels, and hammers. Repairs or replaces tumblers, springs, and other parts. Opens door locks for which there are no keys. Opens safe locks by manipulating dial and listening to sound of tumblers or by drilling.

#### 8. Acronyms:

3MTT	3M Training Team (CVN)
AIMD	Aircraft Intermediate Maintenance Detachment
AQAO	Assistant Quality Assurance Officer
ASD	Aviation Support Detachment
ATS	Afloat Training Specialist
CAO	Chief Auxiliary Operator (CVN)
CEW	Chief Electrical Watch (CVN)
COW	Chief of the Watch (CVN)
DCTT	Damage Control Training Team
ECM	Enlisted Community Manager
EDO	Engineering Duty Officer
EOOW	Engineering Officer of the Watch
ETT	Engineering Training Team
FRC	Fleet Readiness Center
IMA	Intermediate Maintenance Activity
IMF	Intermediate Maintenance Facility
MTS	Master Training Specialist
NIMS	National Institute for Metalworking Skills
NSW	Navy Special Warfare
QAO	Quality Assurance Officer
QAS	Quality Assurance Supervisor
RCO	Readiness Control Officer (LCS EOOW equivalent)
RMC	Regional Maintenance Center
SEPEC	Shipboard Engineering Plant Program Manager
TECHAD	Enlisted Community Manager Technical Adviser

#### Consideration for advancement from E6 to E7

1. Sea Assignments (all)

- LPO at sea (CVN/AS/Operational/Joint/Expeditionary/FDNF) a plus
- Qualified QAI





- Qualified 3M 301 3M 306
- 3MA/3MC with documented impact a plus
- Qualified Repair Duty Chief (AS), Repair Duty Officer (AS) a plus
- Qualified EDO
- Qualified EOOW a plus
- Qualified COW(CVN) a plus
- Qualified Ballast Officer (LPD, LHA, LSD, LHD) a plus
- Have a minimum of one warfare pin for each platform assigned
- Qualified ETT (except AS class) with documented impact a plus
- Qualified DCTT with documented impact
- Command Collateral with documented impact
- FCPOA involvement with documented impact
- Holding a FCPOA position with documented performance a plus
- Completed EJPME 1 and 2
- Complete NIMS Certifications Level 1 (Job Planning, Benchwork & Layout, Measurement, Materials & Safety, CNC Lathe Operator, CNC Mill Operator, Drill Press, Grinding, Milling, Turning Between Centers, and Turning Chucking) a plus
- Completed USMAP Journeyman Inside Machinist
- Sailor 360 involvement
- 2. Shore Assignments (all)
  - RMC (impact billet on the waterfront)
  - ASD (with documented impact)
  - Served as LPO or 3MA a plus
  - Ship Superintendent a plus
  - Qualified QAI
  - Qualified 3M 301 3M 306
  - 3MA/3MC with documented impact a plus
  - RDC(w/MTS) a plus
  - Recruiting Duty, serving as RINC/LPO a plus
  - Instructor Duty (w/MTS) a plus
  - ATG(w/ATS) a plus
  - Qualified QAS a plus
  - Qualified 3M 301 3M 306
  - 3MA with documented impact a plus
  - Completed EJPME 1 and 2
  - Completed USMAP
  - Completed NIMS Level 1 a plus
  - Sailor 360 involvement

### **Consideration for advancement from E7 to E8**

- 1. Sea Assignments (all)
  - LCPO at sea (CVN/AS/Operational/Joint/Expeditionary/FDNF)
  - Qualified QAI, QAS a plus
  - Qualified 3M 301 3M 306, 307 a plus
  - 3MC with documented impact a plus
  - Qualified Repair Duty Officer (AS) a plus
  - Qualified EDO
  - Qualified EOOW a plus
  - Qualified COW(CVN)
  - Qualified Ballast Officer (LPD, LHA, LSD, LHD) a plus
  - Have a minimum of one warfare pin for each platform assigned





- Qualified ETT (except AS class) with documented impact a plus
- Qualified DCTT with documented impact
- Command Collateral with documented impact
- CPOA involvement with documented impact
- Holding a CPOA position with documented performance a plus
- Completed EJPME 1 and 2
- Senior Enlisted Academy (SEA) a plus
- Complete NIMS Certifications Level 1; Level 2 (CNC Lathe Setup, CNC Mill Setup, Drill Press, Cylindrical Grinding, Surface Grinding, Milling, Turning Between Centers, and Turning Chucking) a plus
- Completed USMAP
- Sailor 360 and CPO Initiation involvement
- Sailor 360 Coordinator or CPO Initiation Season/Committee Lead a plus
- 2. Shore Assignments (all)
  - RMC (impact billet on the waterfront)
  - ASD (with documented impact)
  - Served as LCPO or 3MC a plus
  - Ship Superintendent
  - Rating Community involvement (with documented impact), AERR
  - Qualified QAI, QAS a plus
  - Qualified 3M 301 3M 306, 307 a plus
  - 3MC with documented impact a plus
  - RDC(w/MTS), Ship LCPO a plus
  - Recruiting Duty, serving as RINC/LCPO a plus
  - Instructor Duty (w/MTS) a plus
  - ATG(w/ATS) a plus
  - Completed EJPME 1 and 2
  - Senior Enlisted Academy (SEA) a plus
  - Completed USMAP
  - Completed NIMS Level 1, Level 2 a plus
  - Sailor 360 and CPO Initiation involvement
  - Sailor 360 Coordinator or CPO Initiation Season/Committee Lead a plus

### Consideration for advancement from E8 to E9

- 1. Sea Assignments (all)
  - LCPO at sea (CVN/AS/Operational/Joint/Expeditionary/FDNF)
  - DLCPO at sea a plus
  - Qualified QAO a plus
  - 3MC with documented impact
  - Qualified Repair Duty Officer (AS)a plus
  - Qualified EDO
  - Qualified COW(CVN)
  - Qualified Ballast Officer (LPD, LHA, LSD, LHD) a plus
  - Have a minimum of one warfare pin for each platform assigned
  - Qualified ETT (except AS class) with documented impact a plus
  - Qualified DCTT with documented impact
  - Command Collateral with documented impact
  - CPOA involvement with documented impact
  - Holding a CPOA position with documented performance a plus
  - Senior Enlisted Academy (SEA)





- Complete NIMS Certifications Level 2; Level 3 (CNC Lathe Programmer and CNC Mill Programmer) a plus
- Completed USMAP
- Sailor 360 Coordinator or CPO Initiation Season/Committee Lead with impact
- 2. Shore Assignments (all)
  - RMC (impact billet on the waterfront), LCPO
  - ASD (with documented impact)
  - Served as SEL or DLCPO or 3MC
  - Ship Superintendent a plus
  - Rating Community involvement (with documented impact), AERR
  - 3MC with documented impact
  - RDC(w/MTS)a plus
  - Recruiting Duty, serving as Zone Sup/DLCPO a plus
  - Instructor Duty (w/MTS) a plus
  - ATG(w/ATS) a plus
  - Qualified QAO a plus
  - Senior Enlisted Academy (SEA)
  - Completed USMAP
  - Completed NIMS Level 2 a plus
  - Sailor 360 Coordinator or CPO Initiation Season/Committee Lead with impact