

3d Maintenance Battalion's Ground Maintenance Technician Program

Today's multi-functional ground maintenance technician (GMT)

by CWO4 Verdon A. Antoine

The Commandant stated in his *Commandant's Planning Guidance*, "Our desired end state also requires elite warriors with physical and mental toughness, tenacity, initiative, and aggressiveness to innovate, adapt, and win in a rapidly changing operating environment."¹ I completely agree with the Commandant's assessment on how we should employ our marines. Focusing on the *Commandant's Planning Guidance*, my battalion commander, LtCol Issitt, tasked me with developing a program that would support disaggregated units with a well-rounded, more experienced technician, and that could perform advanced technical skills as forward as possible in an expeditionary advanced base operation (EABO). 3d Maintenance Battalion's vision is to have GMTs that possess sufficient troubleshooting and technical skills to execute multi-functional ground maintenance across the heavy equipment, motor transportation, and ground wheeled/track ordnance commodities. The GMT program targets technical proficiency through practical application in garrison and in an austere environment.

During our case study, 3d Maintenance Battalion formed a team of subject matter experts that included a CWO4 3510 (Motor Transportation Maintenance Officer), Master Gunner Sergeant 3529 (Motor Transporta-

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tation Maintenance Chief, CWO2 2110 (Ground Ordnance Officer), Master Sergeant 2149 (Ordnance maintenance Chief,) and a CWO2 1310 (Engineer Equipment Officer) reviewed the training and readiness (T&R) Standards of all MOSs within 3d Maintenance Battalion in order to identify alike T&Rs that will train our GMTs. The team identified that the ideal GMT would merge the 1341 (Engineer Equipment Mechanic), 2141 (Assault Amphibious Repairer/Technician), 2147 (Light Armored Vehicle Technician), and 3521 (Automotive Maintenance Technician). We determined that the 1142 (Engineer Equipment Electrical System Technician) did not have T&Rs that coincided with the others, but the MOS would bring value to the team with their electrical troubleshooting skills and general understanding of diesel mechanics.

The team established a GMT super squad with six Marines acting as GMTs, made up of a Sergeant 3521 as team lead, a Corporal 3521, and Corporals 1142, 1341, 2141, and 2147. The super squad reviewed each commodity's (Motor transportation, Heavy Equipment,

Assault Amphibious Vehicle and Light Armored Vehicle) technical manuals and navigated the Interactive Electronic Technical Manual. The super squad conducted-on-the-job training at III MEF Support Battalion and 4th Marine Regiment shops. They repaired and closed one service request on a High Mobility Multi-Wheeled Vehicle, closed two service requests on an Light Armored Vehicle, diagnosed one Military Millennium Vehicle, and performed a weekly preventive maintenance checks and services on one Assault Amphibious Vehicle. The team did this in a group setting with the assistance from the subject matter experts of that commodity.

The results from the actions of our super squad initial engagement with the GMT concept was a success. During the on-the-job training, the team lead captured that the super squad were able to do the maintenance of different commodity platforms as a team, but individually, they had their issues. The 2147 struggled with the concept of how the fuel systems worked and the super squad had to rely on the 3521's knowledge. The other mechanics were able to work on a Millennium Military Vehicle all terrain forklift; however, after troubleshooting, the team discovered the fuel injectors needed to be replaced and receive third echelon repair. The only Marine that could do that repair was the 1341 according to the Technical Manual. The super squad Marines were

proficient at using the regular PDF file Technical Manuals but needed further guidance to effectively use the Interactive Electronic Technical Manuals Interactive Electronic Technical Manual for Motor Transport vehicles.

I teamed up with the 3d MarDiv Motor Transportation Officer and the maintenance officers with 3d Maintenance Battalion's Ordnance Maintenance Company in order to organize a GMT maintenance support team to support 12th Marine Regiment as our first GMT team that supported only the Delta Table of Authorized Material Control Number platforms. The team supported this initiative by sending MOS 1161, 1341, 3521, and 2141 technicians to conduct maintenance

and engineer equipment at III MEF Information Group's maintenance bays on Camp Hansen, assisting 7th Communication Battalion and III MEF Support Battalion.

The team conducted corrective maintenance for 34 pieces of equipment: 10 had successful repairs, 9 were troubleshoot and, upon further diagnosis, the GMT determined the parts/repairs required to get equipment operational, 11 Limited Technical Inspections were conducted, 3 were under repair upon the GMT's departure, and 1 was the reinstallation of the wheel well armor on a Medium Tactical Vehicle Replacement. The GMT also assisted in the repair and the determination of actions required to repair 27 Principal End Items. The

Advanced Base Operations (EABO) that nest exceptionally well with the current strategic guidance. It is time to move beyond the MOC itself, however, and partner with the Navy to complement LOCE and EABO with classified, threat specific operating concepts that describe how naval forces will conduct the range of missions articulated in our strategic guidance.”²

The MEUs operate and meet in accordance with his intent, and all combat logistics battalions maintenance platoons within the MEU have Alpha, Bravo, Delta, and Echo maintenance commodities. Many MEU combat logistics battalions maintenance officers have adopted the GMT concept in order to sustain the ever changing maintenance operations. Often the maintenance officer teamed up the 1341, 3521, 2141, and 2147 Marines in order to provide the motor transport maintenance section with intermediate- and organic-level maintenance repairs in both garrison and a forward deployed environment. Now 3d Maintenance Battalion is attempting to permanently train and man a GMT to always be ready. Giving the commander on the ground the flexibility to send technicians as far forward from the command post to conduct repairs with the fewest people and equipment is the key to mission success for tomorrow's fight.

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on Delta Table of Authorized Material Control. The 1161 (Refrigeration and Air Condition Technician) was a new addition to the GMT and recharged the air conditioning units on two vehicles the two days he was with the team. The rest of the team hung repair parts with minimal troubleshooting on the equipment. It was a successful and productive evolution for future implantations of the mulita-functional maintainer. The supported unit was impressed with their performance and supportive of this initiative.

Our final test of this concept was to send a newly organized super squad of the top performing technicians within the battalion to a unit for a 30-day period. The intent was for the team to perform independently and troubleshoot and conduct repairs in an organic unit. The battalion comprised a GMT team of one Sergeant 2141 team lead and five ground maintenance technicians, 1142, 2141, 2147, 1341, and a 3521. These extremely qualified technicians worked on organic level motor transportation

majority of the GMT's time was spent repairing and troubleshooting equipment with issues that prevented the units from operating within the specified standards. The team assisted the units in determining the maintenance resources needed to perform repairs on several Principal End Items. A brand-new engine control unit on a seven-ton was ordered to replace a faulty environmental control unit; however, the truck would not start. The GMT determined that the new ECU was not flashed into specs and was causing a system communication issue.

Why This Matters

The Commandant stated in his planning guidance,

The 2016 Marine Corps Operating Concept (MOC) predates the current set of national strategy and guidance documents, but it was prescient in many ways. It directed partnering with the Navy to develop two concepts, Littoral Operations in a Contested Environment (LOCE) and Expeditionary

Note

1. Gen David H. Berger, *38th Commandant's Planning Guidance*, (Washington, DC: July 2019).
2. Ibid.

