

Maintenance Training at BNCOC

by Robert Fulkerson, SFC Michael Harrington, and SSG David Lies

Commanders, are you using all your assets to keep your vehicles 100-percent operational? You need to be aware of the extensive training your turret and hull organizational maintenance personnel are receiving at their Basic Noncommissioned Officers Courses (BNCOC). Although maintenance generally falls under Ordnance, all maintenance in itself is the responsibility of each unit commander. The M1 Abrams and M2/M3 Bradley Fighting Vehicle maintenance personnel are two separate military occupational specialties; still, their jobs and responsibilities are very similar. Their main job is to help keep your vehicles shooting, moving, and communicating.

The CMF 63 Series Basic Noncommissioned Officer Courses provides students with common leader skills, vehicle maintenance, recovery procedures, and other training that helps keep our Army combat ready. The Basic Noncommissioned Officer's Academy at Fort Knox, Ky., provides this training and ensures the training goals of each BNCOC student are met. This is the same academy that trains your armor and cavalry noncommissioned officers to be leaders in today's Army.

The instructors of the 1st Battalion, 81st Armor Regiment, at Fort Knox provide some of the best and most intensive technical maintenance training in the Army. During the 17 weeks of training at the Armor School, 6 to 8 weeks are dedicated to the troubleshooting and maintenance of the M1 Abrams and M2/M3 Bradley turrets and weapons systems. This training is geared toward quick and accurate diagnosis of system faults using the technical manuals and experience gained through hands-on training. The equipment used in troubleshooting includes the Simplified Test Equipment, M1 and M2/M3 series vehicles (STE-M1/FVS); the Advanced Built In Test Equipment (ABIT); and the Breakout Box (BOB) with a multimeter. This equipment is used for two types of troubleshooting — Primary Troubleshooting Procedures (PTP) and Alternate Troubleshooting Procedures (ATP). The PTP entails the use of the STE-M1/FVS and ABIT, along with the technical manuals. Soldiers follow flow charts in the technical manuals and hook up the test sets to help in isolating malfunctions. The test set determines which component is faulty and refers the soldier to the correct technical manual for replacement. This method is very accurate, but time-consuming. The ATP method allows soldiers with knowledge of how the systems operate to use the BOB and a multimeter to make quick checks. This, along with detailed schematics, allow the soldier to quickly diagnose problems, based on his knowledge of the systems. This method does not require the use of any additional test equipment, so it takes less time to get the vehicles operational under any condi-

tion. Both methods are extremely effective when used properly.

You can expect your maintenance BNCOC graduates to arrive at your unit with detailed schematics on your Abrams Main Battle Tank and Bradley Fighting Vehicles. During instruction on ATP, each BNCOC student is provided his own copy of schematics relative to his MOS. These schematics are used as note-taking guides and as training aids. The BNCOC student gets an opportunity to troubleshoot malfunctions on the actual vehicles, using schematics. This training will allow soldiers to make very quick and accurate battle damage assessment and repair because of their advanced and in-depth knowledge.

BNCOC students also learn maintenance management, recovery operations, maintenance supervision, training management, theory of automotive materials, theory of turret operation, vehicle inspection/testing/repairing, and unit maintenance on the M113 family of vehicles, M88-series recovery vehicles, and the M998 HMMWV at Skill Level 3.

Your sergeants and staff sergeants stay busy with various administrative and operational functions; however, they can be counted on when you have specific vehicle problems. If your unit has an excessively low operational readiness rate, take the time to see if your recent BNCOC graduates have had the opportunity to help their mechanics correct any problem areas. This might be a problem that you can overcome with just a little background information on the training available to your soldiers. If you have any questions or comments concerning the technical training your soldiers have received, you can address them to; Commander, 1st Battalion, 81st Armor Regiment, 1st Armor Training Brigade, Fort Knox, Kentucky 40121.

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Mr. Robert A. Fulkerson started his civil service career as a maintenance instructor at the Armor School in 1976. He began his current assignment as Chief of the Cavalry Section for A Company, 1st Battalion, 81st Armor Regiment in 1983.