How to build a battalion Patriot master gunner program

By 1st Lt. Zachary Hartzell

Each Air Defense Patriot battalion is authorized 14 Patriot master gunners (PMG). However, attaining this number of PMG certified personnel is a considerable challenge for most organizations. As of Nov. 8, 2018, 2nd Battalion, 43rd Air Defense Artillery graduated its 17th PMG – the most assigned to a single battalion within Air Defense Artillery. This number exceeds the requirement and greatly exceeds the average battalion across the branch. The key to 2-43rd ADA’s successful development of Patriot master gunners is the systematic and intentional preparation that PMG candidates undergo prior to school attendance. The following article describes the process that battalion leaders went through to understand the PMG requirement and identify gaps in PMG course preparation. Successful solutions to those gaps are highlighted along with further recommendations for future improvement.

Requirement: Patriot master gunner certified personnel

Patriot organization modification table of organization and equipment (MTOE) allots 14 PMGs per battalion. Master gunners serve as weapon system experts in battery-level roles such as fire control platoon sergeant, launcher platoon sergeant and battery master gunner. They also serve as experts and advisors at the battalion level, filling roles such as battalion master gunner and battalion master evaluator. The purpose of these PMG requirements is to ensure tactically proficient non-commissioned officers (NCO) are paired with platoon leaders to assist in planning training, executing training and completing certifications. Army-level Patriot master gunner authorizations are further bolstered by 32nd Army Air and Missile Defense Command - Commander’s Training Guidance which states: “Non-commissioned officers train Soldiers, crews and small teams, no one else, period.” When these NCO positions are filled with PMG graduates, it serves as a force multiplier within the unit. The course is strongly emphasized because it enables the second step of the Eight-Step Training Model: “Train and Certify Leaders” (FM 7-0), ensuring that NCOs have the enhanced skills to plan and conduct training effectively.

Identifying the gap: Soldier preparation

Two years ago, 2-43rd ADA was sparsely equipped with PMG certified personnel, averaging around one per battery. Overworked PMGs and non-PMG platoon sergeants assisted in planning and executing training, but the on-hand number did not match authorized personnel. The majority of platoon sergeants had not received the in-depth training provided by PMG. This resulted in limited knowledge available to train and certify the units, forcing the battalion to spend more time training to the Air Defense Gunnery Table VIII standard.

The initial solution was to send more Soldiers to attend the PMG course. However, the course’s reputation for difficulty resulted in some Soldiers avoiding the opportunity for fear of failure. This “reputation” was further exacerbated when many who attended failed to pass. The gap became clear when, through personal interview with the course candidates and former attendees, we recognized confidence as a key driving factor in PMG success. Confidence, in this way is repre-
sented in two facets. The first facet was the confidence to commit to being a candidate, thus overcoming the fear of failure. The second facet was confidence in themselves at the completion of their preparation to believe they were capable of passing. The question became: How does 2-43rd ADA prepare PMG candidates in a way that overcomes the personal barrier of fear of failure and the institutional barrier of insufficient pre-course knowledge to develop more PMG certified personnel and positively change the course’s reputation in the battalion?

**Solution: Audience focused Pre-PMG course**

The 2nd-43rd ADA’s solution was to develop an “audience focused” pre-PMG course. The audience focus refers to the tailoring of the program to evaluate and refine instruction tailored to individual candidate’s needs. A key element of this tailoring was the application of step seven (conduct an after-action review) and eight (conduct retraining) of the eight-step training model in a mentor-to-mentee relationship, accelerating their knowledge retention.

The 2-43rd ADA pre-PMG course occurs over a four-week period and provides course participants with familiarity of tasks required for each graded event at the PMG course. Instructors for the pre-PMG course come from the battalion standardization team, as well as senior PMGs from across the battalion. The pre-PMG course consists of multiple sections that we utilize to prepare candidates.

1. NCOs recommended were identified by battery leadership to prepare for Patriot master gunner. Recommended candidates demonstrated proficiency in current duties and positions as well as a desire to achieve.

2. Second-43rd ADA’s pre-PMG class began similar to the actual PMG course by focusing on radar theory, battery and battalion-level fire control programming (engagement control station and information coordination central tabular entries), tactics and operations. We found the material necessary for this training on the Fires Knowledge Network “Reachback Training” page.

3. Battalion master evaluator and battalion master gunner developed and administered tests to candidates on the material covered in class. They used the tests to evaluate test-taking strategies and guide candidates to improvement.

4. In a group, candidates prepare a one-quarter training strategy utilizing a master activities calendar, current mission essential task (MET) assessment and projected MET assessment. The documentation to support this exercise is derived from the previous PMG course. This nests with the year of training required during PMG.

5. The defense design project at PMG requires an abbreviated military decision-making process (MDMP). MDMP is taught as an overarching process, but specifically how it applies to defense design in an abbreviated form. Sergeants and staff sergeants normally have only an understanding of troop leading procedures, very few are exposed to MDMP. The most useful tools to cover the MDMP process are the Battle Staff Smart Book published by Lightening Press and Air and Missile Defense Intelligence Preparation of the Battlefield (ATP 3-01.16).

The current pre-PMG course is resulting in significant positive results. However, through continual assessment and refinement of the curriculum, 2-43rd ADA is considering implementing the following additional elements:

- Hold the class two months prior to each PMG class to allow for re-training time for any Army Training Requirements and Resources System slotted students.
- Utilize the course as a vetting process to determine personnel that should not attend the course.
- Focus the class to attack MDMP as a staff, creating a defense design brief held in front of a mock board.
- Lengthen the course, if possible, to allow for more in-depth products from training strategy and defense design.

**Result: Force multiplier**

Second-43rd ADA has successfully graduated eight Soldiers since developing the pre-PMG course. With these newly certified leaders, our training is more efficient and effective at developing tactical and technical proficiency in our organizations. This will allow the unit to be better prepared to respond to the demands of a rapidly changing and dynamic operational environment. The pre-PMG course is a tool to meet the gap between the requirement and reality within the battalion.

Patriot Master Gunner course graduates are organization’s enlisted Patriot weapon system subject matter experts. They know how to plan, resource and execute training. Beyond assisting in certification of their organization’s mission essential tasks, concentrations of their skillsets elevate the net gains of every unit they are assigned to.

The MTOE positions are all platoon sergeant or higher. They are in positions to teach and lead efficiently. It not only benefits the unit, but also the Soldier’s career; opening doors to future broadening assignments to represent the Air Defense Artillery branch and the United States Army around the world.

1st Lt. Zachary Hartzell is currently the Fire Direction Center officer in charge for 2-43rd ADA. He is an air defense officer who has served as a battery trainer and fire control platoon leader. Hartzell holds a bachelor’s degree in Mechanical Engineering from Worcester Polytechnic Institute.

http://sill-www.army.mil/firesbulletin • 15