

# Stryker Mobile Gun System Gunnery at Battalion and Brigade Level

by CPT Jay Sean Tomlinson and 1LT Bryce M. Markiewicz

Mobile Gun System fielding and operator's new-equipment training provide MGS crews with an iteration of gunnery that is well resourced with civilian-contracted instructors, evaluators and mechanics. However, OPNET does not provide the recurring semiannual gunnery requirement for all Stryker MGS personnel (reference: ST 3-20.13-2). Considering personnel change-over and the possibility that crew rosters six months later don't match crew rosters during OPNET, conducting another gunnery event is the difference between deploying with fully qualified and experienced crews and deploying with crews that have never shot together before.

## Strengths

The M1128 Stryker MGS provides Stryker brigade combat team company commanders with a devastating, precision long-range weapon system that can provide accurate fire from a 105mm high-explosive antitank round out to 3,200 meters; 7.62 mm coax machinegun precision fires to 900 meters; and the flex-mounted M2 caliber .50 machinegun out to 1,800 meters.

It is a vital tool for the company commander, providing attack by fire, support by fire and overwatch capabilities at extended standoff ranges. However, for MGS platoons to bring these ca-

pabilities to the fight, MGS crews must be experts on their vehicles by conducting continuous training, including live-fires. Only by doing so will they have the skills to operate effectively and safely, and be able to adapt to contingencies – including manual loading, degraded operations after improvised explosive device hits or crew loss – or just keep the vehicles operable in austere conditions.

In the current operating environment, the MGS provides immediate response in a way the 120mm mortar does not, since it doesn't require deconfliction of airspace or authorization above company level to shoot. The effectiveness of long-range precision direct-fire weapons in the Corps of Engineers cannot be underestimated. Infantry leaders at the battalion level fully understand the importance of training their mortar sections through semi-annual certification and live-fire. MGS must receive the same amount of command emphasis on training.

## Planning MGS gunnery

Thankfully, MGS gunnery can be done without conducting additional OPNET. With proper resourcing and planning, it can (and should) be done at the brigade or even battalion level. Here are a few key considerations during planning for MGS gunnery:



Day	Task	Notes
1	Advanced echelon deploys	
2	Primary ammunition draw	Advanced echelon setup; billeting; in-process facility; draw targetry; range-safety officer/officer-in-charge classes
3	Alternate ammo draw/setup	Main body deploys
4	Establish/ proof range	Verify targetry, prepare range
5	Boresight, zero, zscreen	Zero weapons systems, verify ballistic computer data
6	Table IV	Focuses on crew fire commands, no live-fire requirement
7	Table V	Day/night, mix of 7.62mm, .50 cal, main gun, stationary and moving, multiple targets per engagement
8	Maintenance	
9	Table VI	Day/night, mix of 7.62mm, .50 cal, main gun, stationary and moving, multiple targets per engagement
10	Table VII	Day/night, mix of 7.62mm, .50 cal, main gun, stationary and moving, multiple targets per engagement
11	Maintenance	
12	Table VIII	Day/night, mix of 7.62mm, .50 cal, main gun, stationary and moving, multiple targets per engagement, the "qualifying" table
13	Alibi Table VIII, Q2s	Another chance for crews who didn't qualify during Day 9
14	Range cleanup/clearing	Turn in targetry, range equipment
15	Ammunition turn-in	Main body redeploys, rear echelon ammunition turn-in
16	Rear eschelon redploys	

**Figure 1. Sample timeline.**

- Resourcing.** Though MGS gunnery is most easily conducted on a range with a built-in tower and forward-looking infrared system, that equipment is not a requirement. A range that allows 105mm fire, has maneuver lanes between multiple battle positions and includes moving targets can support MGS gunnery. While an on-site tower with integrated FLIR and radio systems is ideal, a dismounted long-range advance scout in a tent or mounted on a reconnaissance vehicle or fire-support vehicle, in conjunction with a tent and a radio stack, will allow graders to evaluate and administer MGS gunnery.

Once the range is reserved, the brigade or battalion master gunner must develop and submit the targetry scenario to range control/range support at the training center. A well-developed packet combined with an on-site recon can be the difference between firing on schedule or falling behind to adjust targets and safety danger zones. Also, ammunition must be forecast far in advance, currently 90 days prior in conjunction with Total Ammunition Management Information System procedures. Forecast enough for alibi firers and multiple iterations, ideally enough for primary and alternate firers.

- Preparation.** While the support package provided by OPNET contractors is impressive, much of that work can be done by Soldiers organic to an SBCT. A good logistics-support platoon provides vehicles and trailers to draw and transport ammunition. A contact truck with mechanics and General Dynamics contractors is crucial for on-site maintenance support at the range to keep vehicles operable and sustain throughput.

More assets include wreckers for recovery support, Palletized Loading System for Class V draw and transportation, fuelers for Class III and a field feeding team to provide Class I for Soldiers on the range. Combined with a dedicated range-support detail (range safeties, tower personnel, medics, a radio operator, gate guards, recorders and ammunition holding area guards), the MGS gunnery-support package is significant and should be a key planning consideration when determining whether to conduct brigade- or battalion-level gunnery.

In addition to general support, MGS gunnery also requires vehicle-crew evaluators (experienced MGS vehicle commanders that evaluate each crew's gunnery iteration), which, due to the limited number of 19-series personnel inside a battalion, must come from outside the battalion.

As far as crew-level preparation, crews must be allotted dedicated time in the Advanced Gunnery Training System gunnery simulators to rehearse fire commands and train on the MGS crew systems. The AGTS can qualify crews on the first three gunnery tables (Tables I-III) so that range time can focus on Tables IV-VIII. Emphasis must be placed on AGTS reservations since often there are relatively few simulators on SBCT posts compared to the number of MGS crews. MGS crews must also complete the crew-gunnery skills test prior to gunnery to ensure crew proficiency and avoid costly (potentially vehicle debilitating) operator errors.

Once crews complete their gunnery prerequisites and arrive at the range, they meet the support detail. Once the detail finishes drawing the ammunition, preparing life support and preparing the range, MGS gunnery is ready to begin. Our battalion com-

pleted gunnery on a 16-day schedule (11 range days – see sample timeline in Figure 1). Though a brigade might need more time (typically 18 vehicles instead of six), it would not significantly extend the timeline because the brigade would also be able to leverage more resources and fill downtime (waiting for night gunnery or conducting maintenance). Another advantage of having 18 vehicles on the range instead of six is the ability to sustain throughput by hot-seating crews in other MGS vehicles while vehicles are down for maintenance.

With crews who have trained in the AGTS and completed the CGST, MGS gunnery is a culminating event that is rewarding for the crews and exposes areas of improvement for retraining. It also certifies crews for future advanced and collective gunnery training opportunities if the commander decides to include those in his training plan. Also, it certifies MGS crews to participate in platoon/company live-fires, which will allow the commander to integrate his MGS vehicles into his scheme of maneuver during an live-fire exercise and train in conjunction with dismounted elements.

Stryker MGS gunnery is a vital training event that must progress from a one-time OPNET to a recurring training benchmark event, as intended by regulation in the MGS gunnery manual. It can and should be done at brigade or battalion level. Most importantly, gunnery and subsequent training events build Soldier and leader confidence and understanding in employing the most devastating and precise (at times almost surgical) direct-fire weapon system in the Stryker rifle company’s arsenal.



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ACRONYM QUICK-SCAN	
<b>AGTS</b>	– Advanced Gunnery Training System
<b>BOLC</b>	– Basic Officer Leader’s Course
<b>CGST</b>	– crew-gunnery skills test
<b>FLIR</b>	– forward-looking infrared
<b>MGS</b>	– Mobile Gun System
<b>OPNET</b>	– operator’s new-equipment training
<b>SBCT</b>	– Stryker brigade combat team

