Joint Manning and Merging Missions with the M3P

"So in the Libyan fable it is told that once an Eagle, stricken with a dart, said when he saw the fashion of the shaft, 'with our own feathers, not by others' hands, are we now smitten."
— Aeschylus

By MAJ J. Dave Price

The Multi-Mobile Mission Processor (M3P) is a Pre-Planned Product Improvement (P3I) for the Army JTAGS (Joint Tactical Ground Stations), but was originally conceptualized to also replace the Air Force's Mobile Ground System, Mobile Ground Terminals (MGT) at a cost savings of over $100 million. JTAGS is operated by U.S. Army Forces Strategic Command and the 1st Space Brigade headquartered at Peterson Air Force Base, Colo. The 1st Space Company (Theater Missile Warning) commands and controls three detachments and six sections deployed throughout the Contintental U.S., European Command, Pacific Command and Central Command.

The Mobile Ground System is operated by the 137th Space Warning Squadron in Greeley, Colo., by the Colorado Air National Guard and provides up to six deployable units worldwide in support of a strategic global mission. The U.S. Navy and the Naval Network Space Operations Center supports JTAGS operations from Detachment E in Germany by providing 16 JTAGS operators and 1 OIC (JTAGS-PACOM Detachment Commander) to OCONUS sections at any given time. The Navy provided some of the original cadre of personnel to Germany and implemented the communications interfaces and message formats (Tactical Electronic Intelligence) which remain in use today.

Currently the 1st Space Company is fielding five M3P systems to replace the JTAGS shelters. This effort will be complete by FY06. JTAGS sections will remain in operation until the fielding is complete. The M3P system is a ground based SBIRS (Space based IR satellite) system that was designed to remain viable with the Defense Support Program, or DSP constellation until the SBIRS constellation (with Highly Elliptical Earth Orbit/Geosynchronous Earth Orbit launches) has been fully implemented. This increment two system is called the DM3P (or DSP capable M3P) and the Army will field the first five M3P systems as DM3P. The M3P was originally designed to perform the theater and strategic event processing to cover the spectrum of global missions. The Air Force has elected to continue using the MGT until fixes are in place and the SBIRS constellation is operational and is waiting for GM3P, or Geosynchronous Earth Orbit (SBIRS) capable M3P, before it replaces this system.

The MGT will remain operational until global strategic mission requirements can be met. Global strategic mission requirements will be met initially by a combination of DSP and Highly Elliptical Earth Orbit/Geosynchronous Earth Orbit satellites.

The tenth and last shelter (which will be the first Army GM3P) will not be fielded until 2012 at which time, the Army will upgrade and reconfigure the first five DM3P systems into GM3P. There is a historical and on-going initiative to work out a plan to cross-pollinate and merge missions across the Space community. U.S. Strategic Command is taking the lead in this endeavor.

The preplanned product improvement for JTAGS is designed to provide combatant commanders with a system that is relevant, decisive, and eventually integrated into Limited Defensive Operations (LDO) and Ballistic Missile Defense Systems (BMDS) as an early alerting and queuing system.

SBIRS sensors will have faster scan rates and greater sensitivity. This provides commanders with a continuous, assured, ballistic missile early warning and BMDS queuing system in theater. It is both an insurance policy and force multiplier by supporting all tenants of global missile defense; attack operations, active defense, passive defense and BMC4I. In-theater missile defense remains viable today and will be for the next 10-15 years as a major contributor to Centimetric Early Warning and LDO-BMDS. After this, the M3P will become eclipsed by other theater event systems unless Space Tracking and Surveillance (STS) enhancements are added. The DM3P currently is projected to have capabilities gaps in dollars but steps are being taken now by ARSTRAT and the PEO-ASMD to close most of these gaps in FY 07.

The Defense Support Program Multi-Mobile Mission Processor shelter undergoes testing to ensure support to desert operations. ***SMDC Photo***

As well, the Army still has a requirement for a sixth GM3P shelter that is currently unfunded through FYO9.

There is no current plan to overlap training and manning of the M3P systems jointly even though it has been discussed for 5-10 years. One of the problems is that the Army still needs to provide Space soldiers who have an military occupational specialty (MOS) or additional skill identifier (ASI) that allows him/her to develop JTAGS and Space expertise. Until this time, there is not an enlisted Space Soldier that can be assigned worldwide in ballistic missile warning and defense positions or other Army Space billets in varying commands.

The Navy has manned and supported the JTAGS shelters since inception in 1991 and currently plans to support M3P operations according to a long term memorandum of agreement (MOA) between the sister services. However, there are many other advantages to joint manning and training. 1st Space Company operates its individual qualification training at Fort Bliss, Texas internally and provides trained JTAGS operators and sailors to the field. There is an institutional trainer funded by the Army for the M3P but this current shortfall will not be fixed until FY07. However, the logical theme would be to make the institutional trainer available to the joint force, regardless of who is the proponent.

With the fielding of the M3P, the Force Development and Integration Center will pick up the training mission from the 1st Space Brigade. However, for a GM3P capable of meeting both joint global mission requirements, it makes sense to develop a POI that will meet the requirements of the Air Force and Army and possibly resource instructors from both of these organizations. The Navy already provides a contractor liaison to the individual qualification-training course at Fort Bliss. Unfortunately for joint operations, the Air Force and Colorado Air National Guard will continue to sustain, man and operate the MGT until a replacement (such as the GM3P) is capable of meeting the assigned global strategic mission set.

Additionally, when it comes to manning there are a lot of areas that the services can capitalize on. In example, the Navy sends reservists to the JTAGS individual qualification training and periodically in the summer, they support JTAGS forward units with these sailors during their annual training. In a paradigm shift, the 193rd Space Battalion could be called upon to provide a section or five crews of M3P operators to the force structure. They also happen to be Colorado Army Guardsmen, which would make it easier to perform training and execute an MOA with the Colorado Air National Guardsmen who will eventually get the M3P. The problem of having equipment to work and train on during weekend drills could be overcome with the cooperative effort of joint manning and training between these organizations. There are multiple areas that the Space community can overlap manning and training between National Guard, Reserves and active service components.

It is important to realize that JTAGS and MGT have distinctive missions that are not currently overlapping and that the M3P does not yet meet important Army or Air Force mission requirements and operational capabilities. The GM3P is capable of processing most or all of the data that is common to both. This includes strategic and tactical ballistic missile warning for Centimetric Early Warning, survivable and endurable missions, support of LDO and BMDS, and the strategic or global OCONUS relay missions.

The same tactical and MILSTAR communications systems capability would still need to be provided to all of the fielded systems. Once the GM3P provides the Air Force a MGT replacement capable of meeting mission requirements we will be able to achieve net savings in resources and manpower. With the global USSTRATCOM mission today, it is even more important to take advantage of combining missions through jointly manning these systems with a great opportunity to get a bigger bang for our stretched buck. With a little effort by all the services and good program management, we can make this a reality. In our own fable, let us not be the Eagle smitten, but the one who soars above individual service bureaucracy and desires in this truly joint Space and global mission-focused community.

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