"WHAT DOES SHARPENING OUR EDGE (IN SPACE) MEAN TO YOU?"

Sharpening our edge is about the full spectrum of understanding, training, exploiting/operating, providing tangible space products which have a positive influence on the outcome fort the Warfighter. This applies to both peacetime and wartime operations. A critical aspect to this effort is breaking down (funding/political/organizational) barriers across military services, Department of Defense agencies, Government and Civil Research centers, commercial industry, and foreign entities to leverage space research and capabilities.

Christopher O. Olmedo
Army Liaison
Air Force Research Laboratory
Space Vehicles (AFRL-RV)

The technology that we have is increasing, and certain specialists and researchers are involved in this process. This is beneficial to the Army as a whole, but not for the soldiers completing missions. The information that we can acquire has many limitations on who it can go to. Keeping information confidential is important for our security; however, the Platoon Leaders and Company Commanders are the ones who need the information the most in order to be able to react to it. The intelligence capabilities we have to help us in our research should also be used in short time-sensitive events such as company and platoon missions. It would be essential for the information is understandable and useful to the commander. As a future Platoon Leader, it would be very beneficial to be able to use this information as intelligence for completing missions. The information we are given now helps a lot, but imagine what we could do if we had more. We have the capabilities, so let us use it. Space intelligence should have more focus on achieving short-term goals in order to support the soldiers on the ground.

Cadet Nicole Siegrist
United States Military Academy

As a Noncommissioned Officer, I believe sharpening our edge as space cadre means to remain tactically and technically proficient as well as relevant to the current and future fight. This is accomplished through tough challenging training and enforcing the standards. Currently several space cadre courses are available to attend, from the Army Space Cadre Basic Course to the Satellite Communications Advanced Course to name a few. These courses are in addition to NCOES, Master Resiliency Training and other training resources which keep Soldiers on the cutting edge of duty performance. We have a responsibility to remain sharp whether we are forward deployed or in garrison. Lives depend on it.

SGM Marcus L. Campbell
1st Space Brigade S3 Operations
USASMDC/ARSTRAT

I will discuss two possible meanings for the phrase "sharpening our edge in space." The first has to do with increasing the technical proficiency of FA40s while the second has to do with ensuring our adversaries cannot deny our tactical forces access to space based capabilities.

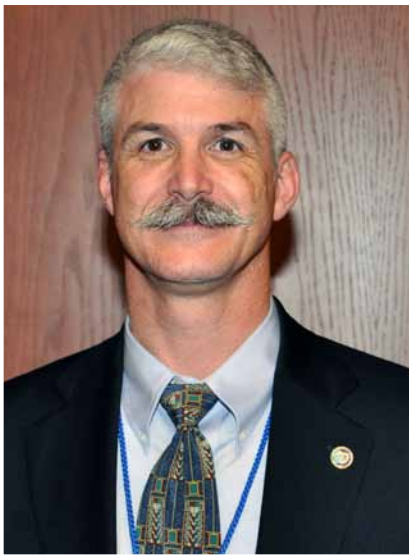
FA40s knowledge of space systems is generally a mile wide and an inch deep. In this capacity, sharpening our edge means increasing that "inch deep" technical knowledge of space systems in select areas as we progress through our FA40 career and making that newly found technical expertise available to our fellow FA40s. In my case, I have developed an in depth understanding of Information Assurance measures necessary for protecting space systems telemetry, tracking and command, and mission data links through my work at the National Security Agency. I have shared this knowledge with other FA40s by presenting at the Army Space Cadre Symposium and working with the Operationally Responsive Space Office and the USASMDC/ARSTRAT NanoSat Program Office.

The purpose of the Army Space Cadre is to normalize the use of space assets throughout the Army's operations and activities. We've been highly successful in this mission. But our adversaries understand that we have become reliant on space systems. They are developing capabilities to neutralize our advantage in leveraging space based capabilities and exploit our weaknesses in relying on it. Sharpening our edge in this capacity means that we must understand our enemy's capabilities and intentions in space, and plan effective countermeasures to ensure we not only maintain our advantage in space based capability but also defend our ability to use space systems to support tactical operations.

MAJ Scott Matey
Space Systems Information
Assurance Program Manager
National Security Agency

As one of the newest members to the space professional community, I am still learning and sharpening my skills in order to provide my fellow Soldiers the latest and greatest space has to offer. I believe that "Sharpening Our Edge" is our ability to combine both our tactical knowledge and space training to not only be a force multiplier to the staff, but a cornerstone in the decision-making process. I'm but a rookie on the team, but we have some pretty heavy hitters that I can and will learn from, through proper mentorship, education and training. I am being sharpened for our future and beyond.

CPT Otis K. Davis
U.S. Army Forces Command



Ralph S. Siegrist III
Defense Analysis and Applicaitons
The Johns Hopkins University/
Applied Physics Laboratory

As a Space professional looking back over the missions and training events I supported, and now, as a Space professional at the Johns Hopkins University Applied Physics Laboratory, overseeing projects and tasks to support the Warfighter, a common theme of Warfighter Exercises emerges. In both positions I always worked to hone both the warriors capabilities, and the unit as a whole. These major HQs exercises are one area I see needing attention and support.

The Brigade, Division and higher headquarters Warfighter events (like Austere Challenge) are developed and based on the commander's development goals for their unit. Rarely, do commanders choose to specifically exercise their staff in areas designed to improve space capabilities. However, like all the other enablers the Space element must be prepared not only to support their unit's needs, such as developing actionable intelligence, or situational awareness, but also the Warfighter Training Staff. These training staff elements are good at what they do, and they have done it successfully for many years.

One difficulty with these Warfighter exercises is the long planning time and coordination needed with the exercise training team, both uniformed and contractor. When I was planning for the exercise I tried to coordinate space product needs before the event. In most instances there was no person on the exercise team working space, and my efforts to coordinate with Leavenworth were meet with conflicting priorities and the Warfighter could be supported.

For example, during the 28th Infantry Division Warfighter the Exercise team had modified the bridges over a river to handle trucks and military vehicles. They also inserted an entire airfield into the city. These changes were accommodated on the fly by downloading WARP shots, drop them into MS Paint, make the appropriate "pictures" then release them to the Division as if they had been pulled that way. Fires & Effects came and asked for bridge battle damage shots. Again, I had to down load the area, "tweak" the pictures to meet the exercise objectives, i.e. the bridge was damaged to prevent heavy traffic, but not foot traffic, and release these to the Staff. I can provide copies of the before and after products to show the effectiveness of these modifications.

Additionally there were two unplanned Space weather events. We had both Geomagnetic Storming and high Geosynchronous Solar levels reported through the daily Joint Air Force and Army Weather Information Network slides. Not only could I brief these to the staff, but I coordinated for the impacts to occur in the exercise to both communications and weapon systems, then the G6 and Fires briefed what happened in their portions of the daily battle update. The learning experience was excellent, but only because it presented itself in reality over Joint Air Force and Army Weather Information Network. These small, low impact events open the eyes of the command to at least think of these potential influences without detracting from the overall training objectives.

Applying the philosophy to train as you would fight, these space events need to be integrated into the planning to ensure both the commanders and staff can see how space operations impact the fight. It gets the space officer out in front briefing the command and staff during the fight with operational impacts. However, someone should be thinking of, and building the support for such Space activities for every command going through a warfighter exercise. Specifically: Someone should build the Joint Air Force and Army Weather Information Network products to support the exercise script, the intelligence products to reflect the scenario battlefield, and facilitate command and staff learning of space operational impacts to traditional operations.