

# FUTURE TASKS FOR THE DIVISION

## ▶ SPACE SUPPORT ELEMENT

The Army Space leadership created Space Support Elements and incorporated them in divisions beginning in 2004 to integrate Space effects into tactical operations and educate the Army on Space capabilities. Over the last seven years, the SSEs successfully enabled division staffs and Major Subordinate Elements to maximize Space capabilities, and they are now fully integrated into division headquarters. Now the Space community has the opportunity to expand the role of SSEs into performing Space tasks in addition to their planning and synchronizing role. This article addresses two of the Space mission areas (space force enhancement and Space control) and attempts to define a task list for future division SSEs. SSEs already perform a few of these, but some tasks require equipment/personnel that SSEs do not currently possess. Accomplishing this requires developing new capabilities for the SSEs to employ, and moving other capabilities from strategic units down to divisions for employment at the operational and tactical levels. →

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TALKING SHOP



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## → The tasks are

1. Position, Navigation, and Timing Augmentation
2. Intelligence, Surveillance, and Reconnaissance Negation
3. Space Control
4. Integrated Joint Special Technical Operations

The SSEs (and Army) should expand their role with Position, Navigation, and Timing. The current SSE role is to make navigational accuracy charts that show when the GPS signal is strongest (and weakest) in a region, then synchronizing operations to coincide with stronger GPS signals. The signal strength is based entirely on the geometry of the GPS constellation so other sources of error such as atmospheric effects and multipath are ignored. This can result in units operating in an area that is “green on GPS” yet they have significant navigational errors. SSE personnel are not capable of strengthening the GPS signal when needed (other than asking the Air Force to update the timing on the satellites more often, which only provides a marginal improvement in accuracy). There is an opportunity for U.S. Army Space and Missile Defense Command to lead an Army effort to develop a method to strengthen the GPS signal in a region at least the size of a village. The augmented signal must be strong enough that a GPS receiver on an individual Soldier works inside a multi-story building with an accuracy that is within a foot (preferably within a couple inches), and the effect must last for at least several days when needed. Construction sites already use differential GPS systems to determine the position of a bulldozer blade to within a few inches. They accomplish this by emplacing several beacons around the construction site that broadcast additional GPS signals. This stronger navigational signal would allow other Army developers (like PEO Soldier and PM Battle Command) to develop systems that allow platoon leaders and company commanders to track individual Soldiers’ locations while conducting urban operations. Army Blue Force Tracking systems working with the current GPS constellation do a good job tracking vehicles on battlefields, but they fail to track individual Soldiers, and they do not work inside buildings. Additionally, this system could defeat the small and cheap GPS jammers that are easily obtained in large quantities by simply overpowering them with superior signal strength. Planning and executing this capability is a division level responsibility (or lower) because this system would probably require emplacing and operating hardware on the battlefield itself. Divisions need to own this equipment themselves to allow its use during routine training in garrison. Creating GPS augmentation teams that are attached to units as they deploy to combat is not sufficient.

An additional task for future SSEs is intelligence, surveillance, and reconnaissance negation. Enemy forces in the war on terror already use satellite imagery from sources such as Google Earth, but more sophisticated foes will have their own satellite surveillance systems that pose a greater threat. Our forces need the ability to prevent electro-optical systems and

radar systems from producing images of their location and disposition. Again, the division must own the privilege to activate these capabilities. Corps and higher staffs always have the ability to monitor, or dictate, the division’s use of the systems, but the ability to control these systems belongs at the lowest level possible. The division has a large enough staff to plan and execute these missions, and it is close enough to the front lines to respond to a rapidly changing environment.

The current SSE role in Space control is to request support from combatant command level units and synchronize the effects for a particular time and place. Very few division SSEs request this support. Reasons for not requesting support vary from one unit to the next, but they generally center around a belief that a division request will never reach a high enough priority for action. Additionally, some Army Space control assets remain un-utilized in the contiguous United States because the Army will not attach them to a unit in theater. If the SSE owned assets that can perform Space control then those assets could be in theater today.

Integrated Joint Special Technical Operations is a term that refers to a number of classified programs. Access to each program is controlled, and personnel with access is kept limited. IJSTO systems have capabilities that fall into the mission set of several functional areas and branches so there is no clear military occupational specialty (MOS) or functional area that should oversee the entire program for a division (or any other level). Synchronizing the efforts across a division is challenging, and this makes the need for a division IJSTO manager clear. The point of discussion is why should the SSE perform the task. FA40s in divisions and corps are already tasked with taking capabilities that reside inside closed channels (usually referred to as “stovepipes”) and integrating them across the entire staff. The cliché, “they are horizontal integrators of vertical programs” is probably the best way to summarize this. Additionally, IJSTO programs are very technical, and they have strict security clearance requirements. FA40s meet those criteria.

Of course, this is not an exclusive list. Division SSEs already have a role in theater missile warning which they should continue to perform. As technology advances, new capabilities will emerge that SSEs will facilitate. It is important for the Army Space Community to develop these capabilities as rapidly as practical and to push these systems to SSEs with doctrine describing how to employ them. A primary theme of Army transformation was pushing capabilities down from the strategic level to the operational and tactical levels. Army Space capabilities need to follow that example. Space Support Elements accomplished their initial mission of enhancing maneuver forces’ use of Space capabilities, and they are successfully integrating Space across our combat units. Now is the time to increase their operational capabilities to truly bring Space to the tactical Warfighter. 