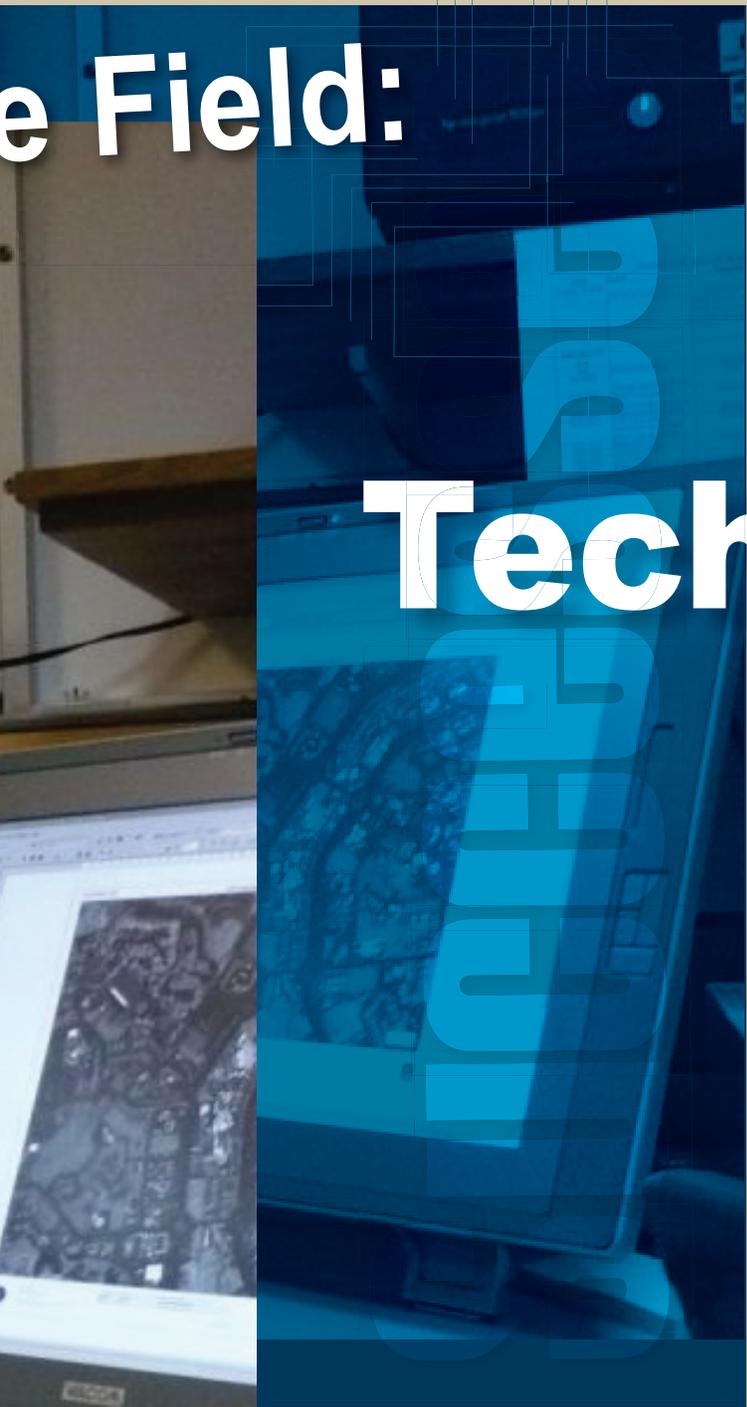


Successes
Focus on
the Field
4th Infantry
Mechanized

Successes from the





e Field:

Space Technology

The role of commercial satellite imagery

Since Central Command directed the move of the Commercial (Imagery) Exploitation Team and its Eagle Vision II shelter to the National Security Agency Bahrain in 2004, the team has worked together with the National Geospatial-Intelligence Agency, Middle East Geospatial Support Team in Bahrain to provide support to the Warfighter. This partnership between U.S. Army Space and Missile Defense Command/Army Forces Strategic Command and the National Geospatial-Intelligence Agency has developed through the years and serves as a model for what can be accomplished when organizations worked together. The Commercial Exploitation Team, which disseminates commercial imagery throughout the Central Command Theater, has seen its mission support for Request for Imagery products grow from a yearly total of 92 requests fulfilled in 2004 to over 900 requests fulfilled in the first three months of 2008. This accomplishment would not have been possible without the support from the Mid-East Geospatial Support Team.

SSG Erik Gaines (21U Topographic Analyst) Performing a QC (Quality Check) on two recently created map products.

Army Courtesy Photo



Teamwork with National Geospatial-Intelligence Agency Support Team Bahrain has helped the Commercial Exploitation Team to weather the February 2008 transition of the primary commercial imagery collection deck from Quickbird to Worldview.

In January 2008, the National Geospatial-Intelligence Agency Support Team Bahrain Team Chief, Craig Donovan, helped the Commercial Exploitation Team secure a new workplace in a hard-site Central Command building on the base. This building acquisition enabled the Commercial Exploitation Team to replace its Eagle Vision II shelter and equipment, which had been ravished by the harsh desert environment, with a more advanced and more capable processing system. The installation of the new equipment in a hard-site gave the Commercial Exploitation Team access to more reliable power as well as shelter from the elements. Currently, this building just houses the Commercial Exploitation Team, but later this year, the rest of the National Geospatial-Intelligence Agency Support Team Bahrain team will move from their current warehouse location to occupy the building. This collocation of teams is sure to provide even more opportunities for teaming.

Teamwork with National Geospatial-Intelligence Agency Support Team Bahrain has helped the Commercial Exploitation Team to weather the February 2008 transition of the primary commercial imagery collection deck from Quickbird to Worldview. The significance of this transition to the Commercial Exploitation Team cannot be understated. The transition to Worldview impacted the Commercial Exploitation Team's workflow supporting U.S. Central Command elements, since the Commercial Exploitation Team's only direct access system is the QuickBird Application Server, which provides direct from the vendor ingest of QuickBird imagery. In order to maintain continuity of support to the theater elements, the Middle East National Geospatial-Intelligence Agency Support Team provided the Commercial Exploitation Team access to their Global Broadcast System. The Commercial Exploitation Team has downloaded over 600 images via the Global Broadcast System over the last two months. Just recently, the

Commercial Exploitation Team, which includes Soldiers with experience setting up and operating satellite systems, volunteered to complete the installation of the Mid-East National Geospatial-Intelligence Agency Support Team's new Global Broadcast System in the Central Command building. This installation will enable the Commercial Exploitation Team to integrate the Global Broadcast System into its equipment set, which will improve its ability to support the Warfighter. In turn, the Mid-East National Geospatial-Intelligence Agency Support Team will avoid the cost of sending a survey team and an installation team from the United States to complete the installation. In addition, the new Global Broadcast System will be ready for use when the rest of the Mid-East National Geospatial-Intelligence Agency Support Team collocates with the Commercial Exploitation Team in the fall of 2008.

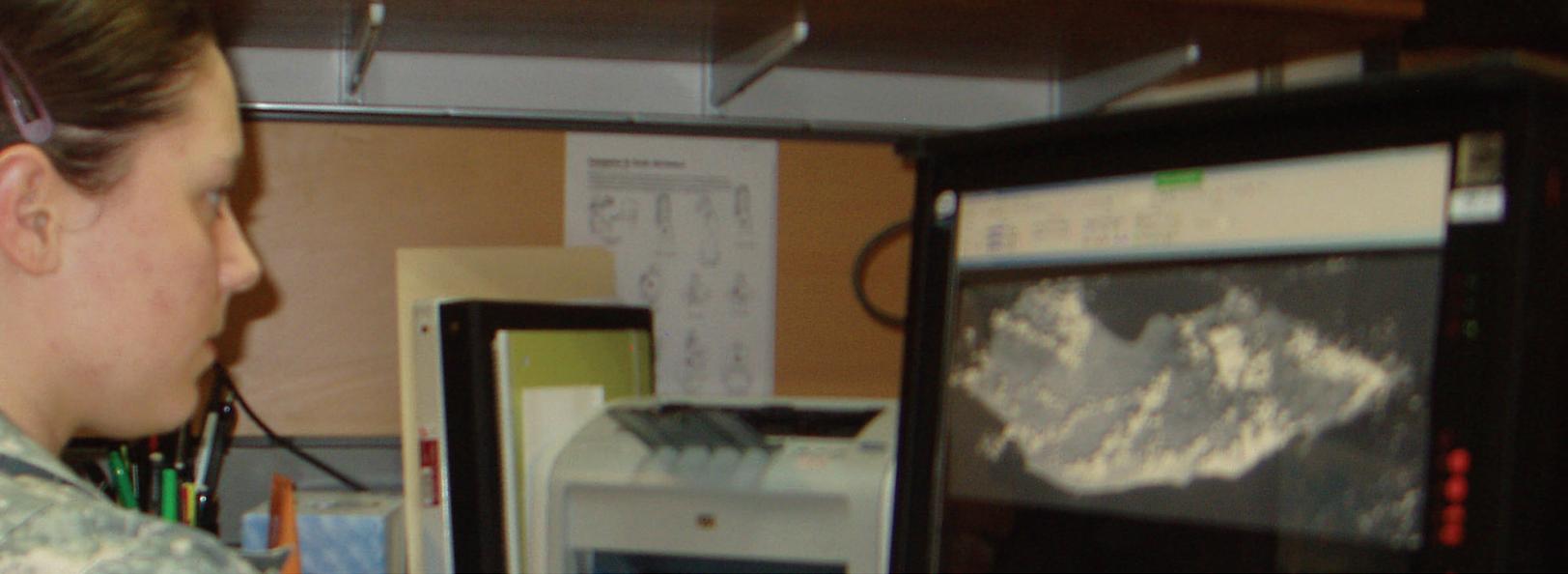
This would be a good teamwork story if it ended with just the logistical support piece mentioned above, but the additional operational impact of these two teams working together is powerful and was exemplified in a recent Coalition Maritime operation. An increasingly significant part of the Coalition Maritime Forces' overall mission of maritime security in the U.S. Central Command area of operations has become fighting piracy on the high seas. The waters off the coast of Somalia, connecting the Red Sea and the Indian Ocean, have become a prime hunting spot for pirates. According to the International Maritime Bureau, a division of the International Chamber of Commerce, thirty-one acts of piracy were reported off Somalia in 2007, more than anywhere else in the world and a 10 percent increase from the previous year. The Commercial Exploitation Team has been proactively working with the U.S. Navy and other Coalition maritime forces to protect mariners from piracy in the region.¹



SPC Michael Summers (25B Information Technology Specialist) Performing a search for imagery (left screen) utilizing NGA's WARP and on the right, monitoring and administrating the (CES) Commercial Exploitation System.

For this particular operation, the United Kingdom Maritime Component Command required imagery of a location in Somali. They found that they only had hand-drawn maps from early 1900s land surveys so they requested assistance from the Commercial Exploitation Team to obtain recent imagery. The Commercial Exploitation Team, a team of eight U.S. Army reservist from the 1st Space Battalion, 1st Space Brigade in Colorado Springs, quickly pulled the needed imagery from its archive of over 8,000 U.S. Central Command images. The Commercial Exploitation Team created a 3-D fly-through imagery product, and then enlisted the support of the Remote Replication Team, a part of the Mid-East National Geospatial-Intelligence Support Team to produce 30" custom maps which detailed the suspected pirate locations. The Commercial Exploitation Team delivered these products the same day they received the request. The United Kingdom Maritime Component Command used these products for initial operation planning.

As the operation progressed, the United Kingdom Maritime Component Command expressed a desire to get an even more recent image of the



SPC Megan Valentine (35F Intel Analyst) Working with a World View Image to create a specific map composition product to satisfy a recent RFI (Request for Information).

location. Once again, the Commercial Exploitation Team/Mid-East National Geospatial-Intelligence Support Team provided immediate on-demand support. The Commercial Exploitation Team ordered a new collection of the area of interest and the commercial satellite imaged the pirate location on its next pass over the area. Later that day, the Commercial Exploitation Team pulled the imagery data via the Mid-East National Geospatial-Intelligence Support Team's Global Broadcast System Receive Suite. With this imagery, the Commercial Exploitation Team was asked to provide an analysis in support of the United Kingdom Maritime Component Command's operation. For this task, the Commercial Exploitation Team employed skills developed during pre-deployment training with the National Geospatial-Intelligence Agency mobile training team in Colorado Springs to provide a product that answered many questions posed by the United Kingdom Forces. With this knowledge of the location, the United Kingdom planners were able to refine their plans and focus their efforts. Feedback from the United Kingdom commander expressed that the Commercial Exploitation Team products were critical to the operational planning process.

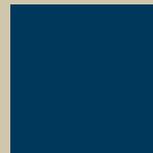
The Commercial Exploitation Team could not have supported this mission without the great teamwork of all members of the National Geospatial-Intelligence Agency Support Team Bahrain. SMDC/ARSTRAT and National Geospatial-Intelligence Agency, recognizing the synergistic impact of working together, recently discussed plans to expand their partnership. The expansion talks centered on the creation of a Combatant Command Geospatial Campus, where the Commercial Exploitation Team and National Geospatial-Intelligence Agency would work together to maximize National Geospatial-Intelligence Agency's investment in the commercial satellite industry, which in turn will enhance support to the Warfighter. This partnership also aims to minimize duplication of efforts, provide an implementation platform for a direct from commercial vendor access solution and maximize out-reach and education capability. Lastly, the partnership hopes to leverage existing resources such as the Commercial Exploitation Team -Tactical Set, the Global Broadcast System and Wideband Global Satellite. 

Footnotes

1 Perry, Tony; "Low-key war on Pirates become more perilous", Los Angeles Times, 28 Mar 08.



Bandar Abbas Port in Iran utilizing the new WorldView Imagery collected by Digital Globe. The WorldView satellite was launched September 18, 2007 from Vandenberg. Image courtesy SMDC/ARSTRAT Commercial Exploitation Team



from the Field