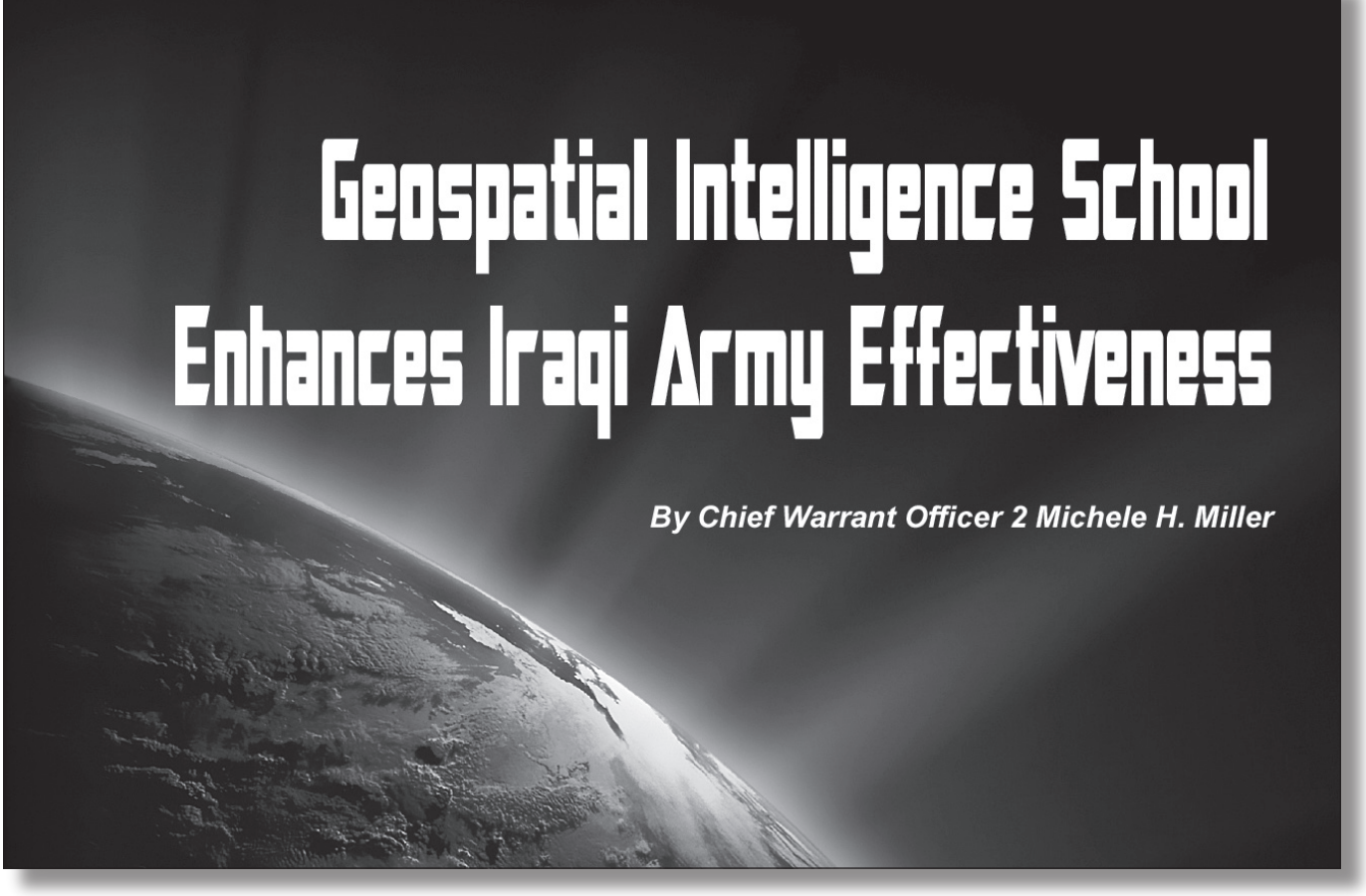

Geospatial Intelligence School Enhances Iraqi Army Effectiveness

By Chief Warrant Officer 2 Michele H. Miller

"Those who do not know the conditions of mountains and forests, hazardous defiles, marshes, and swamps cannot conduct the march of an army."

—Sun Tzu

In the summer of 2007, the Multinational Corps–Iraq (MNC–I) Engineer Directorate (C-7) facilitated an initiative to develop a geospatial intelligence (GEOINT) school for the Iraqi Ground Forces Command. Although a mapping and survey branch previously existed in the former Iraqi Army, it had conducted little formal mapping, and its surveying and map production ceased altogether after the Iraqi Army was disbanded. The new school established by MNC–I C-7, known as the Iraqi Mapping and Survey School (IMSS), provided training to enhance Iraqi Army and Iraqi Ground Forces Command understanding of the operational environment using GEOINT.

GEOINT consists of imagery, imagery intelligence, and geospatial information. It is the exploitation and analysis used to describe, assess, and visually depict physical features and geographically referenced activities on the earth. During mission planning, GEOINT products provide an understanding of complex route intersections, interchanges, bridges and buildings, which in turn improves situational awareness for commanders and allows staffs to develop courses of action and plans based on accurate data. GEOINT, merged with other intelligence sources, eliminates the need for repeated and unnecessary reconnaissance. This added capability for the Iraqi Ground Forces Command and Iraqi Army staffs resulted in a better-trained, informed force that was properly equipped to defeat insurgents in Iraq and improve stability, thereby setting conditions for sustainable security. This in turn helped coalition forces transfer more responsibilities to Iraqi security forces.

Vision

With recommendations from the National Geospatial-Intelligence Agency (NGA), MNC–I C-7 formulated basic start-up requirements and in early 2008 briefed Iraqi officials on the school's mission. MNC–I C-7, in coordination with the 100th Topographic Engineer Company, 20th Engineer Brigade, XVIII Airborne Corps, implemented plans to develop the IMSS. Desktop computers, laptops, and global positioning systems were purchased and an Arabic linguist was hired to translate materials. In addition, four Soldiers from the 100th Topographic Engineer Company were assigned to the school as instructors/advisors.

Mission and Training

MNC–I C-7 designed the IMSS, located in an Iraqi intelligence compound, to advance GEOINT and topographic mapping capabilities within the Iraqi Army and Iraqi Ground Forces Command. IMSS students are introduced to geospatial information systems (GIS), including functional uses of GIS in operational support settings. The IMSS training conforms to curriculum standards used at NGA's college. Subjects include, but are not limited to—

- Fundamentals of GIS.
- Tactical decision aids using ESRI® ArcMap™.

An American Soldier displays the first Arabic map of Iraq produced by an Iraqi geospatial officer in a precursor to the current Iraqi mapping and Survey School.

- Military aspects of terrain (observation and fields of fire, cover and concealment, obstacles, key terrain, avenues of approach [OCOKA]).
- Military briefing techniques.

Courses are translated into Arabic to allow for sufficient lecture time and practical exercises. Blocks of instruction are formulated into a set of five 3-week sessions. They are technologically challenging and require advanced knowledge of computers, engineering, and geographic terminology.

Due to the complexity of information covered at the IMSS, Iraqi applicants must have a record of academic achievement. The school accepts company grade engineer or military intelligence officers with degrees in computer science, computer engineering, earth or environmental science, geography, geology, or survey engineering. Exams in basic mathematics, English skills, and literacy are administered before admission, and candidates undergo an intensive vetting process.

Benefits

Upon successful completion of courses, students leave the school able to use GEOINT products for their unit's benefit. To date, six Iraqi Army divisions have each received two IMSS graduates, a laptop computer, and two desktop computers loaded with terrain analysis software and an extensive collection of releasable imagery, elevation data, and urban-area feature data sets. Graduates are creating tactical decision aids and terrain visualization products pertinent to unit mission requirements. These products have proven essential to military planning at the small-unit level. Several products were instrumental in capturing high-value targets during Iraqi Army and Iraqi Ground Forces Command missions in Baghdad, and the units involved received recognition from United States Army Central Command officials.

Advancement and Transition

The IMSS began as a "proof of principle" to facilitate development of a critical operational and intelligence capability in the Iraqi Army. Today, joint and interagency relationships with Multinational Security Transition Command–Iraq (MNSTC–I) and the NGA continue to advance GEOINT capabilities for the Iraqi security forces and other Iraqi directorates. At the Military Intelligence Academy–Taji, an intermediate GEOINT course is now conducted. Of the 24 Iraqi students who recently graduated from the coalition-led course, 7 were designated as instructors. They now teach the course with the coalition in a supporting role. MNSTC–I and NGA have also developed an advanced GEOINT course and are training Iraqi students as future instructors. The NGA commitment to building this GEOINT training capability ends in December 2009, with hopes that Iraqi instructors will eventually visit NGA training in the United States in order to continue this partnership and provide ongoing professional development to key Iraqi leaders. Operational effectiveness for the Iraqi Army and Iraqi ministries rests on their knowledge and application of geospatial intelligence, imagery analysis, and geodetic surveying. To that end, the IMSS is vital to mapping a way toward Iraqi geospatial independence.

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