A QUICK INTRODUCTION TO NATO ENGINEERING

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Throughout the 20th and into the 21st century, the United States Army has been involved with multinational—or combined—operations. The majority of time during deployments is spent not in support of kinetic operations, but rather stability operations and civil support operations, such as those in Bosnia, Kosovo, Afghanistan, and Iraq. All are examples of combined operations with a relatively short warfighting period (less than a year), followed by longer periods of stability operations. These may last several years—or even decades—in Afghanistan and Iraq. For some of our allies—including most of our North Atlantic Treaty Organization (NATO) partners—it is politically easier to support these stability operations than traditional warfighting. These combined stabilization missions, which tend to need more engineer effort, mean that more and more engineer units will operate in a combined environment. This article describes how NATO headquarters view engineers, specifically noting the differences in organization and function inside the headquarters itself. It also describes lessons learned through a tour of the International Security Assistance Force (ISAF) headquarters and a tour with the NATO Allied Rapid Reaction Corps (ARRC) headquarters.

Organization of a NATO Engineer Branch

Most NATO engineer branches are divided into four sections:

- Plans
- Operations
- Infrastructure
- Intelligence

For the purpose of this article, the term "NATO headquarters" is used to describe headquarters for joint

A NATO convoy patrols in Afghanistan.

forces, a land component, or a corps. Because headquarters at division and lower levels are nationally pure, they conduct engineer planning according to their own national structures.

The multinational engineer brigade improves a road outside Kabul.

Plans and Operations Sections

The plans and operations sections in a NATO headquarters are similar to their U.S. counterparts. Their mission is to support the planning process in the headquarters. However, delivering against this mission is more challenging than in a U.S. headquarters. There are numerous engineer units with different structures and capabilities in each country's army. Having a true understanding of what engineering capability is present inside each nation's formations is a precise and demanding job. This process has become harder since deployments now include Partnership for Peace (PfP) countries. The engineer plans and operations sections must now know the equipment and capabilities of both NATO and former Warsaw Pact nations to accurately describe engineer capabilities and efforts to the higher commander.

When writing orders, the engineer plans section must focus subordinate engineer effort as precisely as possible, but not to the point of limiting the ability of subordinate engineer formations to operate on the battlefield. A limiting order will deny the subordinate engineer commanders the ability to conduct their missions according to their own national priorities. This conflict can lead to a stalemate in engineer activity or to engineer efforts dedicated exclusively to national missions rather than attempts to achieve the higher commander's desired effects.

Infrastructure Section

The engineer infrastructure section has a very limited range in its support of NATO infrastructure. The country that has responsibility for a particular area of operations also has responsibility for building the infrastructure to support that mission; costs lie where they fall. Therefore, countries will build what they think they need, but to their own national standards. There are no NATO standards for individual buildings or bases. NATO infrastructure engineers only have proponency for a few common-use items. Airfield runways and the NATO headquarters itself are the primary examples of items that fall into this section's purview. This limits the scope and capabilities of the infrastructure branch and makes it dependent upon outside agencies such as the United States Army Corps of Engineers for technical advice and quality control.

Intelligence Section

The engineer intelligence section's mission depends on the commander's main effort. The section's original mission is to understand the enemy engineer's capability and doctrine. With that mission, it would coordinate directly with the all-source cell in the corps intelligence (G-2) section, providing subject matter expertise to the G-2 section's analysis of the enemy. With the ending of the Cold War, the branch has a more varied mission set. Now the branch may be responsible for supporting improvised explosive device defeat (IEDD), analyzing host nation infrastructure for intelligence preparation of the battlefield, or monitoring current and future planned reconstruction and development projects. All of these missions require the engineer intelligence officer to coordinate with numerous branches in the headquarters.

Geographic Section

It is important to note that the geographic section was not mentioned as being part of the engineer branch. This section is located in the G-2 section in most NATO headquarters. While this organization helps the intelligence community with its mission, it limits the ability of the engineer branch to maintain positive control of all engineers in the headquarters.

Engineer Branch Within the Headquarters

Subordinate formations must understand the true abilities of a NATO headquarters to support engineer operations throughout the theater. The engineer branch in the typical headquarters is limited in both personnel and

location. Subordinate formations must note these constraints and tailor their requests to the engineer branch.

In most cases, the engineer branch is part of a larger logistics branch and is controlled by the Deputy Chief of Staff for Combat Service Support (DCOS CSS). This is different from a U.S. headquarters, where the engineer branch is numbered—G-7—and works directly for the chief of staff. (In NATO, G-7 designates training.) In addition, the headquarters plans and operations branches will not have dedicated engineers. Any engineer analysis or input required for orders has to come from the engineer branch itself. This is different from U.S. engineer manning, which has a separate engineer section in the plans and operations (G-3) branch.

Where the engineer branch is located in the headquarters limits its scope. While the plans and operations sections should be concerned with all aspects of engineers on the battlefield, they may be limited by their DCOS CSS to looking only at sustainability and infrastructure operations. The DCOS CSS also may limit the scope of work for the intelligence and infrastructure sections to looking at sustainment issues, rather than engineer effects across the entire battlefield.

Within the headquarters, NATO engineers must always be proactive in communicating with other branches, no matter where the engineers are in the headquarters. Specifically, the engineer branch must maintain constant liaison with the headquarters plans and operations sections, or the engineer effort can become unsynchronized with the maneuver efforts.

Lessons Learned

Language and doctrinal terms must be used precisely in a NATO headquarters. Within the engineer branch of the ARRC, there were assigned members from six different nations, speaking five languages. Across the ARRC, there were members from 16 different nations. Precise phrasing of orders and correct use of doctrinal terms are mandatory to ensure that the mission is even understood, much less accomplished. While a person may take additional measures to ensure that a product is understood by a person who does not speak English as a first language, there is also a considerable gap in language between American and British personnel. You may feel comfortable with using idioms with British (or Canadian) individuals, but your meanings or intent may be significantly distorted. When in doubt, ask for feedback for all correspondence.

A corollary to this lesson is refusal to discount an individual's capability if you do not initially understand them due to a language difference. This dovetails with the lesson that you cannot walk into a multinational headquarters with any cultural biases or preconceived notions about the capabilities of a particular country's armed forces. All armies have good and bad individuals, so all-encompassing statements about groups of people are rarely accurate. Once you are assigned to the unit, you must make the time to talk to all individuals to understand their strengths and weaknesses. Failure to understand your surroundings may cause you to discount a potential resource.

Within NATO, there are preconceived notions about the United States Army. The size and funding of our Army are well known and often discussed. Also known are U.S. policies, to include our positions concerning Afghanistan and Iraq, and our refusal to sign the Ottawa Land Mine Treaty. All of these lead to certain perceptions concerning both the United States and the members of its armed forces. Individuals must work through these perceptions to succeed in their jobs.

Communicating with nongovernmental organizations (NGOs) and the international community (IC) during deployments is essential during stabilization operations. These agencies are the principle developers in the nations where we operate. Military security and reconstruction efforts and NGO/IC development projects must be synchronized to create long-term stabilization effects. Engineers, in conjunction with the civil-military cooperation section, must create and maintain close relationships with these agencies. Specific information must include—

- Goals and objectives for particular programs.
- Limitations and flexibility of funding.
- Locations of current and planned projects.

Not understanding the development situation in the area of operations limits the abilities of engineers and the commanders we work for.

Conclusion

Engineer branches in a NATO headquarters are configured differently from those in U.S. headquarters. They are limited in capability and reach compared to American engineers. All engineers who will work in a NATO environment must understand the capabilities and limitations of these branches. There are also some key lessons that engineers must understand before working in a NATO environment. These include precise phrasing of orders and correct use of doctrinal terms, the rejection of cultural bias, and understanding of perceptions of the United States among NATO personnel. Finally, engineers working in a deployed environment must understand the whole stabilization environment in order to create long-lasting effects.

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