



# CTC Notes

## National Training Center (NTC)

### Changing the Environment at NTC

By Captain Timothy R. Vail

NTC has made significant additions to the contemporary operational environment (COE) in support of three recent stability operations and support operations (SOSO)-focused rotations. The most distinctive addition has been the creation of 12 villages across the desert.

Of the villages populated on the NTC battlespace, some are more prominent than others and, based on the scenario, some may be completely abandoned or thriving, based on economic conditions of the area. (Note: Village names may change with each rotation.) It is an ever-changing, growing, and realistic COE. The 11th Armored Cavalry Regiment (Opposing Force [OPFOR]) provides the civilians and paramilitary forces and, based on the unit and the training objectives of senior trainers, they can replicate any number of world regions, cultures, and religions.

### Village Overview

- **Red Pass Ranch:** Formerly known as El Grazio, near Red Lake Pass—30 structures, an airfield, and 11 buildings recently added.
- **Eastland:** At the NTC east gate—19 structures, all recent additions.
- **Millersville:** Formerly known as Range 23—3 structures, no recent additions.
- **Silverlakes:** Formerly known as Range 24—4 structures, no recent additions.
- **Cave Springs:** Formerly known as Limaville—9 structures, no recent additions.
- **Citadel:** At the racetrack landmark—14 structures, all recent additions.
- **Tiefort City:** South of Hill 780 landmark—45 structures, all recent additions.
- **Junction City:** At the four-corners landmark—13 structures, all recent additions.
- **Langford Wells:** East of Langford Lake—19 structures, all recent additions.
- **Rockpile:** West of the Crash Hill landmark—13 structures, all recent additions.

- **Lakeside:** Formerly known as Nelson Lake Mining Camp—31 structures, an airfield, 5 buildings recently added.
- **Pioneer Valley:** Demilitarized communications complex—3 structures, to include an 81-foot-diameter communications dish.

### Village Infrastructure

Each village contains varying levels of infrastructure, as discussed below. Through effective urban assessments leading to engineer support to the town infrastructure, the rotational units can win the support of the local populace.

- **Power:** Each village is outfitted with local generators for electricity. The buildings added most recently have 20-amp circuitry tied into the local generator supply.
- **Roads:** The larger villages of Tiefort City, Lakeside, Eastland, and Red Pass Ranch have received rotational unit support through gravel operations to reduce dust in the areas. However, roads remain generally unimproved.
- **Water:** Each village maintains local supplies of potable water with no local distribution networks.
- **Sewage/Waste:** Each village transports sewage and waste to Irwin Military City for treatment.
- **Drainage:** Nearly all road networks are susceptible to degradation due to heavy rainfall.
- **Structures:** There are four dominant styles of structures in the villages. Figure 1 depicts the locations and type of structures located at each of the villages. The annotations of *A*, *F*, *B*, and *S* correspond to the number of buildings that are formed, from 40-foot mobile buildings, preexisting facilities, railroad boxcars, and sheds, respectively. For examples of each, see Figure 2, page 62.

### Engineer Support Makes a Difference

Figures 3 and 4, page 62, show the scope and size of two of the larger villages—Tiefort City and Lakeside. Within Tiefort

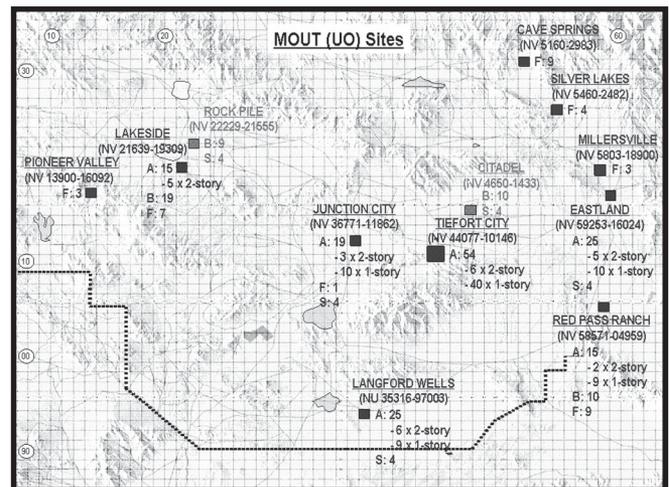


Figure 1. NTC Town Distribution

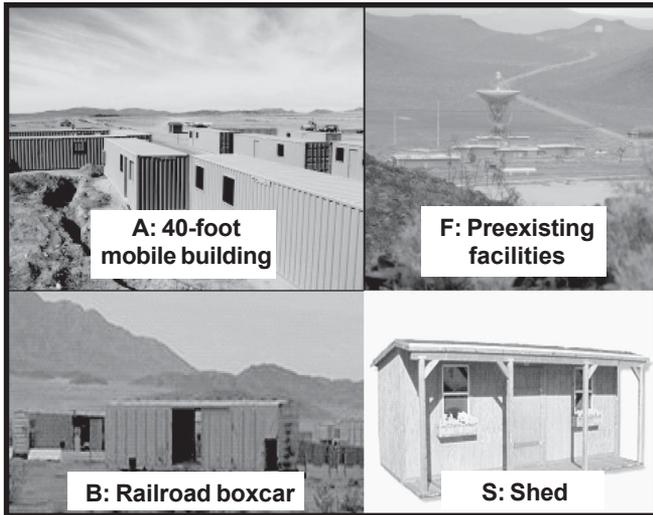


Figure 2. NTC Facilities



Figure 3. Tiefert City



Figure 4. Lakeside

City, rotational engineer units have routinely improved roads and added buildings to support local economies and education. Tiefert City replicates the regional capital for the area, and long-term plans include continuous expansion of the town into a small city.

Lakeside has seen recent growth as well due to engineer effort, to include airfield improvements, dust control, and the construction of a schoolhouse. The framework of the local roadways is easily identifiable, and it continues to evolve as the town grows.

### Conclusion

The COE at NTC continues to transform to meet the needs of the force. The addition of these villages to the battlespace and the adaptive nature of the 11th Armored Cavalry Regiment continue to ensure that units are prepared and ready for a wide variety of operational deployments.

POC is CPT Timothy R. Vail (SW03T), (760) 380-5058 or DSN 470-5058, e-mail <sidewinder03t@irwin.army.mil>.

### Emerging Threats at NTC

*By Captain Mark R. Faria and Sergeant First Class Charles J. Maxwell*

The Army has quickly transitioned from offensive operations to stability operations and support operations (SOSO) in current theaters of operation. This transition has brought new threats to our soldiers in the form of paramilitary forces and their weapon of choice—the improvised explosive device (IED). NTC has changed its training program to incorporate these new threats and train soldiers on conditions they will face in Iraq and Afghanistan.

### Paramilitary Forces

Paramilitary forces normally operate from patrol bases in rural areas and are resupplied by a logistics network operating from Irwin Military City. Paramilitaries regularly visit NTC's villages to influence the populace as well as to get supplies. They store weapon caches in the rural areas but keep mortar caches very close to firing positions.

Paramilitary forces are very mobile, conducting combat operations 10 to 15 kilometers away from their bases using BRDMs (a Russian combat reconnaissance patrol vehicle), desert-colored high-mobility multipurpose wheeled vehicles (HMMWVs), and civilian vehicles for transport. Paramilitaries will drive unarmed through the areas of operation, link up with their logistics support at a predetermined location, secure their weapons, and then begin their combat operations. They have the ability to recruit from the urban center of Irwin Military City, as well as from civilians on the battlefield from towns in the area.

Paramilitaries are suspected of having three elements under centralized command and control (C2). Each element has



**Paramilitary Camp**

platoon-sized formations of 20 soldiers each. Centralized C2 provides additional mortars; intelligence, surveillance, and reconnaissance (ISR) assets; C2; and logistics support. Embedded within the platoons are terrorist cells that carry out suicide missions. Within each element, two platoons sleep during the day and conduct military operations at night, while one platoon conducts combat operations during the day and sleeps at night. Paramilitary forces, sometimes posing as civilians in civilian vehicles, maintain constant surveillance on U.S. forward operating bases (FOBs), looking for key systems and identifying patterns. Paramilitaries will target key systems such as logistics, C2, and collection assets. Some paramilitary tactics, techniques, and procedures (TTP) are to—

- Throw grenades and satchel charges, while posing as civilians.
- Fire 12 rounds of mortars, then displace.
- Fire mortars within minimum range of Q36/Q37 radars, preventing acquisition.
- Reconnoiter, identifying 8-digit grids for key systems such as tactical operations centers (TOCs), radars, and collection assets.
- Target logistics, C2, retransmission, and intelligence collectors.
- Assassinate pro-U.S. civilians.
- Use IEDs on main supply routes (MSRs).
- Conduct ambushes along MSRs and choke points, focusing fires on soft vehicles.
- Throw satchel charges from moving vehicles onto U.S. vehicles.
- Conduct suicide bombings on vehicles and personnel, normally one per day.
- Coordinate attacks on multiple FOBs, all taking place within 30 to 60 minutes of each other.
- Attack FOBs (10 to 12 paramilitaries); when casualties mount, single vehicles attack or 2 to 3 paramilitaries throw grenades.

## Improvised Explosive Devices

In current theaters of operation, IEDs are becoming a weapon of choice. It is paramount that units develop TTP on how to deal with this hazard during training, rather than when they are faced with the real threat. NTC employs IEDs to achieve this objective.

Brigade combat teams (BCTs) face IEDs that are command-detonated in support of ambushes and attacks. They also face IEDs that are left to injure soldiers and civilians and instill terror among the populace. The ability to safely handle this threat greatly impacts the BCT's relationship with the civilians in their area as well as ensuring the force protection of their soldiers.



**Typical IEDs at NTC**

Paramilitary forces have used the following methods of IED emplacement:

- Roadside ambushes.
- Protecting weapons caches.
- Events that cause mass casualties and instill terror.
- Suicide bombers (vehicles, vests, and satchel charges) to kill U.S. forces.

To deal with the IED threat, units should—

- Analyze enemy ordnance order of battle (EOOB) to determine the types of threats.
- Plan for explosive ordnance disposal (EOD) response with dedicated security assets.
- Ensure that soldiers are trained on IED recognition, reporting procedures, and actions on contact.
- Analyze the complementary technical intelligence report (COMTECHREP) completed by EOD personnel to conduct pattern analysis and determine trends.
- Plot and track the IED threats on the battlefield and ensure that all units are aware of them.

## Conclusion

NTC continues to transform in order to properly train BCTs on emerging real-world threats that our soldiers face in current theaters of operation. Paramilitary forces and IEDs continue to cause casualties in Iraq and Afghanistan; but by training these scenarios at NTC, units will deploy better prepared and have TTP on hand to counter these threats.

POC for paramilitary threats is SFC Charles J. Maxwell (SW09), (760) 380-7040 or DSN 470-7040, e-mail <sw09@irwin.army.mil>. POC for IEDs is CPT Mark R. Faria (SW18), (760) 380-5600 or DSN 470-5600, e-mail <sw18@irwin.army.mil>.

## Stability Operations and Support Operations

By Captain Christopher J. Tatka

NTC has recently conducted three rotations focused on stability operations and support operations (SOSO) in order to train units for deployments to support the Global War on Terrorism. This new NTC SOSO environment mirrors the areas of operation for potential deployments. Units operate out of forward operating bases (FOBs) and conduct operations in towns recently constructed in the NTC training area. This environment poses several challenges to the rotational units, which include—but are not limited to—paramilitary forces, civilians on the battlefield, and improvised explosive devices (IEDs). Typical missions where engineers support brigades in the SOSO environment are route clearance and cordon-and-search operations, force protection of FOBs, and general engineering.

### Route Clearance

At NTC, units are not currently conducting route clearance as a combined arms operation, because engineer platoons serve as the support force, security force, and sweep force. As stated in Field Manual (FM) 3-34.2, *Combined Arms Breaching Operations*, route clearance is a “combined arms operation typically executed by an infantry company or cavalry troop.” Task organizing for route clearance is similar to that required for breaching operations. Appendix E, FM 3-34.2 with Change 1, addresses in detail the planning and execution of route clearance operations. It discusses the clearance methods (linear, combat, and combat route), as well as the four sweep levels that should drive the brigade and battalion organization for route clearance operations.

### Cordon and Search

The engineers’ greatest contribution to cordon-and-search operations is the ability to use mine detectors in assisting with the search phase of the operation. In villages, paramilitary forces bury caches that may consist of weapons, ammunition, mines, and explosives. Engineer squads (divided into two search teams) are usually the unit of action (UA) to support the maneuver forces. When engineers use mine

detectors to search an area, the tempo of the search slows; however, a much more thorough search is conducted. Engineer elements must conduct rehearsals with their maneuver units in order to address concerns associated with the time it takes to conduct a thorough and complete search.

Two sweep teams are recommended, with one team leader and two soldiers per team. The recommended makeup and training of the teams is as follows:

- Four mine detectors (AN/PSS-12 Mine Detector or Handheld Standoff Mine-Detection System [HSTAMIDS]).
- Mine probes.
- Marking materials.
- Face shields.
- Mine detector calibration training.
- Mine detector techniques training (Safety of Use Message [SOUM] 02-001 for the AN/PSS-12 Mine Detector).

### Force Protection of FOBs

Units conduct SOSO from an FOB that may or may not have existing force protection measures in place. These measures may include berms, survivability and fighting positions, triple-standard concertina fencing, or other protective obstacles. Engineer planners must recommend survivability and countermobility priorities to the brigade commander early in the planning process, based on their analysis of friendly engineer capabilities.

Examples of priorities for survivability and countermobility in and around FOBs include—

- C2 nodes.
- Q36/Q37/Sentinel radars.
- Indirect fire assets.
- Class III (B) supplies (fuels).
- Captured ammunition holding areas (CAHAs).
- Gates.
- Perimeter berms.
- Individual fighting positions with overhead covers.
- Ammunition holding areas (AHAs).

### General Engineering

Engineer units are challenged by planning, controlling, and executing general engineering tasks. Engineer staffs that are trained in planning combat engineering operations have a difficult time transitioning into general engineering in support of SOSO. A suggested way of approaching the planning process is to plan general engineering as if planning for a defensive operation. The following tasks are critical:

- Identify village requirements.
- Know friendly capabilities (do not promise the world).

- Ensure that the engineer battlefield assessment (EBA) reflects friendly capabilities (including contractors).
- Pass the EBA down to subordinates to support.
- Allocate engineer forces (mass effort).
- Prioritize general engineering in the brigade combat team (BCT).
- Determine the best method to control assets (centralized versus decentralized).
- Develop and monitor the timeline.
- Check and confirm general engineering plan(s).
- Report progress (subordinates should keep the commander informed).

Before conducting general engineering support to villages, engineer battalions must establish a method of obtaining assessments they need in order to adequately plan the engineer effort. Current trends are as follows:

- Engineer battalions do not know what information they need or do not provide requirements to subordinate units conducting assessments.
- Units have no standard assessment method.
- Engineer units are not trained at conducting village assessments.
- Units do not know what tools and personnel are required to conduct the assessment.

Examples of information needed from village assessments are shown in the chart to the above right. This list could also include the following:

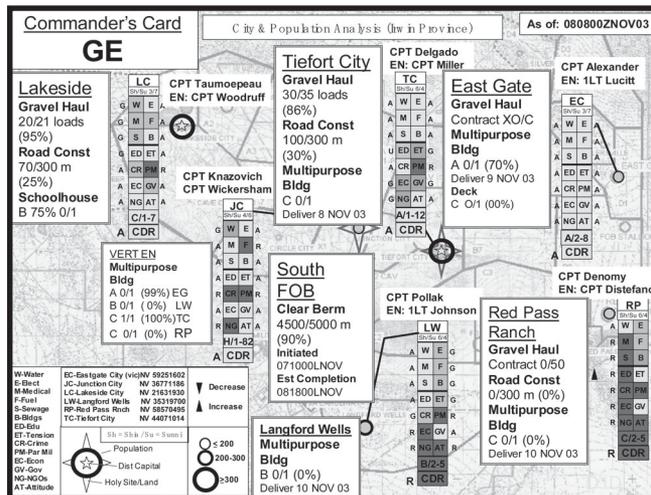
- Town diagram with structure numbering system.
- Required measurements in each category.
- List of tools and resources required to complete assessment.
- How to identify power generation.
- Waste disposal system.
- Engineer skills and capability of local population.
- Location of explosive hazards (unexploded ordnance [UXO], mines).
- Resources that could be used by U.S. forces (engineer equipment, materials, and tools on-site).

The finalized assessment should be placed in the engineer company/battalion tactical standard operating procedure (TACSOP).

Tracking the progress and managing assets to support general engineering can be challenging for a commander. The chart in the lower right column is an example of a commander's card that engineer battalion staffs can update every 12 to 24 hours, based on the current battle rhythm.

### Village Assessment

<b>A. Personnel</b>		<b>F. Transmission (Power)</b>	
Male	_____	Type of line	_____
Female	_____	Length	_____
Children	_____	Fuel required	_____
<b>B. Assumptions</b>		Distance from generator	_____
Water	_____	<b>G. Appliances needing fuel</b>	
Roads	_____	Cooking	_____
Structures	_____	Heating	_____
<b>C. Water Requirements</b>		Generator	_____
Quantity of storage	_____	Other	_____
Type of storage	_____	<b>H. Roads</b>	
Truck-delivered	_____	Approximate length	_____
Well-delivered	_____	Damaged roads	_____
Gravity-fed	_____	Road cover type	_____
<b>D. Power Assessment</b>		<b>I. Structures</b>	
Buildings with	_____	Housing	_____
Buildings without	_____	Commercial	_____
Buildings need	_____	Need repair	_____
<b>E. Generators</b>		<b>J. Types of repair</b>	
3-kilowatt	_____	Roof	_____
5-kilowatt	_____	Structural	_____
10-kilowatt	_____	Doors	_____
Other	_____	Windows	_____
		Porches	_____
		Fences	_____



Commander's Card

POC is CPT Christopher J. Tatka (SW11), (760) 380-7055 or DSN 470-7055, e-mail <sidewinder11@irwin.army.mil>.