

The North Korean Threat: Countering Brawn with Brains

by George T. Norris

Winston Churchill once described the Soviet Union as “a riddle, wrapped in a mystery, inside an enigma.” It probably would have exceeded even Churchill’s grasp of hyperbole to extend this analogy far enough to describe North Korea accurately.

Very little is known about this country, which is technically still at war with South Korea and the combined United Nations forces that came to South Korea’s aid. It’s interesting to note that while South Korea has become a modern economic power in the Pacific and the world, North Korea has changed little.

During 1945 and 1946, the Soviet union established a communist government in the portion of Korea they occupied. The army they established was organized and trained like the Soviet Army of the 1930s. The man they placed in charge of this country was Kim Il-Sung, then a Major in the Soviet Army.

More than 40 years later, Kim Il-Sung retains control of the country. The only post-war leader who is still alive, much less still in power, he has devoted his energies to unifying the entire Korean peninsula under his control. He has built a military force that’s the seventh largest in the world—an army almost as large as that of the United States but drawn from a population that is less than one-tenth the size.

The US commitment to the defense of South Korea is small both in relative and absolute terms when measured against our commitments elsewhere in the world. With only limited assets, the US must employ them to the best advantage, capitalizing as much as possible on the problems and limitations of the North

Korean forces. This article briefly discusses North Korea’s field artillery capabilities and proposes a few ways to counter them.

Their Brawn

Although more modern than during the Korean War, the North Korean Army still has a simple approach to the war they hope will unify the peninsula. The three more-or-less distinct phases of the battle would be the artillery preparation, the first-echelon attack with infantry and tanks and, finally, the second-echelon exploitation with tanks and mechanized forces. Overlaid on this would be the commitment of the more than 100,000 unconventional warfare and “commando” troops whose missions include reconnaissance, attack or seizure of critical positions and interference with South Korea’s well-developed barrier plans.

The artillery, which plays such a predominant role in North Korean Army operations, is an extremely large force—more than twice the size of the artillery forces in the south. In fact, it outnumbers the entire US Army’s artillery force, including that found in our Reserve Components. The weapons include towed and self-propelled cannons, rocket launchers and, understandably, a large number of mortars.

Mortars and Towed Artillery

The mortars and towed artillery of the North Korean Army are generally unspectacular in their performance, being copies of Soviet weapons introduced before 1960. There’s no evidence they have modernized the systems since then, while the US and South Korea have introduced modern systems to replace each of

the systems used during the Korean War (except the 107-mm mortar).

The forces in the South have an edge in terms of cannon ammunition diversity, which the North Koreans counter with a higher rate of fire, greater number of weapons and absolute range advantage. Perhaps the most important thing to remember about North Korean mortars and towed artillery is something demonstrated during the War—they can and will take the close support artillery anywhere.

For the crews of the North Korean 120-mm mortars and 122-mm howitzers, the Korean peninsula is flat. It’s also too long for them to adequately support the attacking maneuver forces anywhere other than near the Demilitarized Zone (DMZ).



North Korean 120-mm Mortar Crews. The Korean peninsula is too long for the crews to protect their maneuver forces effectively.

It's here the towed artillery is intended to have its impact by opening holes in defensive positions during the first phase of the battle and supporting the attack of the first echelon. The towed artillery would be unable to support operations effectively beyond the DMZ.

Self-Propelled Cannons

The North Koreans plan to breach the defenses at the DMZ and then commit their second echelon to exploit success. To support the tank and mechanized forces, they have introduced a complete range of self-propelled cannons.

Generally comparable in performance to the towed cannons (the self-propelled systems such as the 122-mm and 130-mm guns and 152-mm gun-howitzer have the same range as their towed counterparts), there are two noteworthy exceptions. The 122-mm howitzer uses the D-30 cannon with a range of 15,300 meters while the older towed cannon is limited to 11,800 meters.

The 170-mm gun is uniquely North Korean and has the longest range of any cannon in service with any army. Capable of firing conventional projectiles to a maximum range of 40,000 meters, the 170-mm gun also fires a rocket-assisted projectile (RAP). Assuming the fairly standard capability of a 25 percent increase in range with RAP, the 50,000 meter range is at least equal to that of the Soviet 203-mm self-propelled gun 2S7.

Obviously, the North Koreans enjoy a range advantage over the artil-

lery forces in the South, as well as higher rates of fire for most systems. They do not, however, have any protection for the crews of these weapons, other than a small shield that surrounds the fighting compartment.

MRLs

Despite the number of cannons in their inventory, the North Koreans rely on multiple rocket launchers (MRLs) for high volumes of fire or saturation of targets. The rocket launchers in their inventory are principally 122-mm systems (either 30- or 40-round launchers), but they also have man-portable 107-mm MRLs and a new 240-mm MRL with a 40,000-meter range.

Although we know little about the new, heavy MRL, the 122-mm and 107-mm systems are familiar to everyone as they've been used to great effect by Iran, Chad, the Mujaheddin

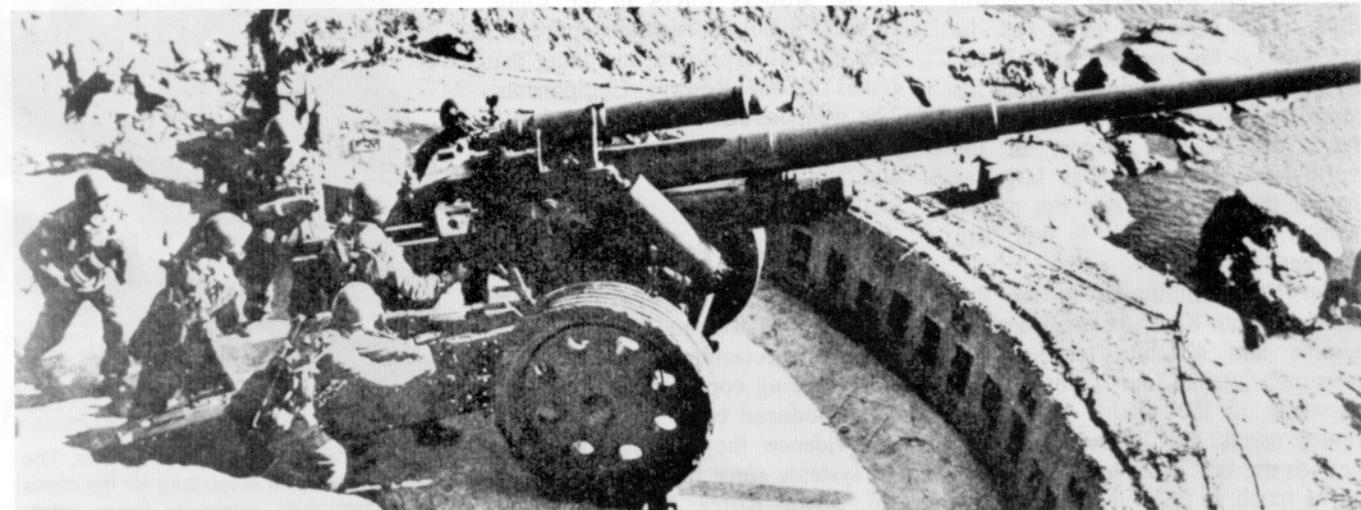
in Afghanistan and even terrorists in the Middle East. The systems are capable of high volumes of fire but have relatively flat trajectories and obvious firing signatures.

Our Brains

It's these features that seem to characterize North Korean artillery and present the thinking artilleryman with his first means of countering the North. In their desire to achieve an absolute range advantage over the South, the North Koreans have a preponderance of guns and rockets in their inventory. The flat trajectories of these weapons makes it virtually impossible to employ them effectively against targets in defilade. This requires mortars and howitzers, which then are limited in range by having to fire high angle.



The 170-mm self-propelled gun is uniquely North Korean and has the longest range of any cannon in any army—an estimated 50,000 meters.



These North Korean Coastal Defense Artillery Troops are using a World War II-vintage 105-mm gun.

Counterreconnaissance

Because the majority of North Korean target acquisition and battlefield reconnaissance is with ground-based observers, another possibility presents itself. If you can't locate units, you can't engage them. Although there are clearly limited numbers of positions that can be occupied by firing batteries, an effective operations security (OPSEC) program and counterreconnaissance can limit the number of observers capable of detecting and locating artillery units accurately. Often easier said than done, the alternative is to employ survivability techniques to minimize the lethality of fires delivered.

If the North Koreans can't get ammunition more lethal than fragmentation high-explosive (HE), then bermed firing positions will offer good (but not absolute) protection from point-detonating and ricochet fires. Frequent movement will offer some protection from manually directed fires. But if there are only a few acceptable firing positions, then one must limit movement.

High-Payoff Targets

Beyond the question of ensuring its own survivability, what can the Field Artillery actually do to help troops facing the threat of North Korean artillery fires? To be blunt, very little. The most important task for the Field Artillery is the destruction of the North Koreans' ability to deliver fires.

The first step in this process should be a mission area analysis such as that done for Europe. We can draw conclusions from these earlier studies and adapt them to the North Korean artillery. For example, the most valuable artillery target is the command and control headquarters.

The Chief of Rocket Troops and Artillery (CRTA) must be located and attacked as early as possible. This requires close work with military intelligence units to locate the detectable signatures of his command post.

Since it's unlikely the North Korean CRTA will obligingly present himself for destruction, the next targets should be the fire direction centers (FDCs), the observers and the ammunition vehicles and prime mov-

ers. The latter offers more for the long-term than for the immediate battle as the North Koreans appear to have a severe shortage of modern, large-payload trucks.

But what of the weapons themselves? The easiest to kill are the rocket launchers, but these require quick-fire channels responsive enough to work in about 60 seconds. A possible alternative, again, would be to work with the military intelligence collectors to target trucks of all types, since they offer a good payoff whether they're transporting rockets or not.

The cannon systems to engage are those most critical to the success of the preparation—the howitzers and gun-howitzers. Their high rates of fire, lethality and high-angle capability must rank them ahead of other cannons—even to the possible detriment of the artillery duel.

Since we can limit the terminal effects of the guns and rockets by position selection, the Field Artillery must make the difficult decision to attack the systems most dangerous to the maneuver forces. Because of their relatively short range, the howitzers and gun-howitzers will be close to the line of contact, making them more easily detected, accurately located and easily ranged by our artillery.

Cannon Destruction

How best to destroy the cannons is a subject that will vary with every situation. Obviously, we can attack the crews quite easily since they lack protection. But this does nothing to prevent a new crew from firing the same weapon. Since the North Koreans may choose to fight from positions dug out of mountainsides, joint or combined-arms attacks may be the only way to guarantee destruction of the weapons. It may be desirable to slow the responsiveness of these cannons, providing more time to attack them and, possibly, reduce their effectiveness as well. The use of scatterable mines is often discussed, but they're in short supply and so easily countered by a prepared enemy in this situation.

One possibility is using smoke. A gunner who can't see his aiming point can't deliver fire. Although smoke is also in limited quantity, it's more difficult to counter and a better

use of a scarce resource in this instance.

The use of HE projectiles fitted with delay fuzes to rubble positions and, possibly, to ricochet into caves is both difficult to predict and to accomplish but would probably be better as a mix with air bursts than would point-detonating projectiles. Copperhead or other guided munitions seem to offer some hope of success, but if you can keep an observer alive that close, then it would be better to make it a combined-arms operation that attacks the position with direct fire.

The Challenge

It's clear the North Koreans have had a long time to perfect their abilities to employ massive amounts of artillery and survive counterfire. It's equally clear we must counter those abilities by effectively using fire support and combined-arms actions to capitalize on their vulnerabilities.

The North Koreans under Kim Il-Sung remain unpredictable and mysterious. We may never know the full range of North Korea's military capabilities or how much time we'll have to prepare.

What is clear is that the Field Artillery has a role to play that will require us to think clearly, plan meticulously and make difficult choices. We'll never be able to destroy all the North Korean forces, so we must employ limited assets to our best advantage—a challenge artillerymen in combat have always risen to.



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