The old tank units have big problems, but can the lighter alternative survive and win?

**The Army Ponders Its Future**

Has Operation Allied Force become a ground campaign, the US Army would have been a long time arriving to fight in Kosovo.

Early in NATO’s 1999 air war against Yugoslavia, the Army put an armored task force into adjacent Albania, but the main routes from there into Kosovo were fraught with obstacles. Chief among them were 12 bridges, 11 of which were too spindly to support the Army’s 70-ton M1 Abrams tanks.

Classified studies estimated that reinforcement of those bridges would have taken four heavy engineering battalions a full four months of non-stop work, according to Maj. Gen. B.B. Bell, chief of the Army’s Armor Center at Ft. Knox, Ky.

“It would have totally telegraphed what we intended to do,” said Bell. “We had a tank that was incompatible with the infrastructure it came up against.”

For at least a decade, the mobility limitation of the Army’s most powerful weapon has been one of war planners’ gnawing concerns. The M1 Abrams tank was built to outgun Soviet tanks on the plains of central Europe; on NATO’s eastern rampart, bridges, autobahns, and other rights-of-way were designed or redesigned to make sure the behemoths could get to the fight quickly.

Not so in the rest of the world. Even during the 1991 Persian Gulf War, when the M1 devastated the Iraqis’ Russian-made T-62 and T-72 tanks in engagement after engagement in open desert, war planners saw vulnerabilities.

“Everybody was nervous as a cat,” recalled Bell, who was the executive officer to Gen. Norman Schwarzkopf, the commander in chief of coalition forces in Desert Storm. “Had we been forced to go to Baghdad, many of the bridges and causeways [in Iraq] would not have been able to handle our tanks.”

The Kosovo war made the problem unavoidable. When Army planners looked for ways to rush a ground force into Yugoslavia, they considered sending the elite 82nd Airborne Division. That idea was nixed. The paratroopers could have dropped into Kosovo within days of an “execute” order. However, the Army concluded that they lacked the firepower to stand up to Yugoslav armor and might have been overwhelmed before relief arrived.

Deployment of the Army’s heavily armored powerhouse units would have taken weeks. Rapidly deployable infantrymen would have been outgunned. In between, the Army had nothing.

That predicament has produced a set of reforms the Army calls Transformation. First announced by Gen. Eric K. Shinseki, the Army Chief of Staff, in the fall of 1999, the principal goal is to develop a number of units that can deploy to a conflict nearly as rapidly as light infantry but with enough combat power to take on an armored enemy force.

**Toward extinction?** The main battle tank long has been the king of land combat, but the reign of heavy armor may well be ending. Here, soldiers prep a 70-ton M1A1 battle tank for loading on a C-17 transport.
“When ordered, we intend to get to trouble spots faster than our adversaries can complicate the crisis,” Shinseki declared a year ago. “We will erase the distinctions, which exist today, between heavy and light forces.”

Shinseki wants the new units to be well-equipped for peacekeeping and other low-intensity missions but to be able to hold their own in combat as well. His goal is to deliver one such “medium-weight” brigade anywhere in the world within 96 hours, a division within 120 hours, and five divisions within 30 days.

Making that happen is a daunting task, to put it mildly. Critics inside and outside the Army say Shinseki’s change is too marginal, too dependent on unproven technology, and may ultimately leave the Army with less combat power than it has now.

One such critic is Andrew F. Krepinevich, a retired Army officer who now serves as executive director of the Center for Strategic and Budgetary Assessments, a Washington, D.C., think tank. “It sounds like this thing isn’t supposed to fight,” said Krepinevich. “It’s just supposed to get to Albania in four days. They ought to be given a pat on the back, but there are a lot of holes there.”

For one thing, analysts have noted, the Army hasn’t clearly stated what the new units are supposed to accomplish. Then there is the cost of transforming the Army—more than $70 billion over the next 10 to 20 years—which could soon collide with other high-profile military programs in all of the services.

An Army brigade equipped with M1 tanks can’t deploy within 96 hours unless it is falling in on equipment that is already in place. An M1 does not fit on a C-130 cargo airplane—the Pentagon’s most plentiful transporter. The C-17, the only other USAF cargo aircraft capable of landing on unimproved airfields, can indeed haul an Abrams, but only one at a time. Kosovo demonstrated that there are not nearly enough C-17s to meet all of the demands for airlift during a conflict. At the time the Army asked for C-17s to move tanks from Germany to Albania, the airlifters were engaged in delivering supplies to uprooted Kosovar refugees and supplies and support equipment to USAF units, which actually were doing the fighting. The Army ended up waiting.

From this experience, the Army has concluded that it must field a new combat vehicle that will perform like a tank but fit on a C-130. That has led the Army to acquire a new set of interim combat vehicles, each of which will weigh no more than 20 tons. With the lower weight comes vulnerability. A 20-ton tank will not have enough armor to stop most anti-tank rounds and even some smaller caliber weapons.

That vulnerability changes everything—from Army fighting doctrine to the morale of troops.

Discomfort

“I’m not comfortable dropping down in something where, with one shot, I can be killed,” said 1st Sgt. Donald Norman, deputy commandant at the NCO Academy at Ft. Knox. “We’re tankers. We jump in this big iron beast and we’re invincible. Now, you put me in this thing where I’m not necessarily the baddest guy on the block. I’m concerned.”

Army wargames show those concerns are justified. When the Army first ran simulations pitting medium-weight brigades against the Yugoslav Army, on Kosovo terrain, the results were alarming.

“In the first few runs, the loss ratios were pathetic,” observed an Army officer involved with the tests. “They were like 1-to-1. We prefer 10-to-1 and even much greater.”

Since Army forces were unable to survive first hits from Yugoslav tanks, they suffered heavy losses in ambushes while they moved through ravines and other choke points in the rugged Balkan terrain. The thin-skinned medium-weight vehicles also took a pounding from enemy artillery.

The simulated drubbings revealed a number of new concepts the Army would have to incorporate into medium-weight brigades. The vulnerability of the 20-ton fighting vehicle to a first shot means that the new unit will have to find and kill enemy tanks, artillery, and other armor defeating weapons before they can target US vehicles.

That makes intelligence gathering and target acquisition—the Army calls it situational understanding—a higher priority than ever, and this came through loud and clear in the wargames. Said an Army officer who helped shape the games, “We dramatically increased the number of UAVs [Unmanned Aerial Vehicles], to make sure there was nothing going on we didn’t know about.”

The Army has established a two-track process for integrating those insights into the force.

First, Army plans call for constructing as many as seven interim combat brigades that will rely on new combat vehicles instead of tanks. The initial unit is scheduled to be ready to deploy by 2002. Second,
the Army is ramping up research and development on a new Future Combat System that is supposed to begin replacing the M1 by 2012. Designs are vague, but the Army hopes the FCS will be the backbone of a force that is three times as effective as the current Army with just one-third the sustainment.

“Tough Mark on the Wall”

Michael Andrews, the Army’s chief scientist, conceded that the plan is “a very tough mark on the wall.”

The first two interim brigades are being fielded at Ft. Lewis, Wash., where the 3rd Brigade of the 2nd Infantry Division swapped out all of its M1s earlier this year. The battalion commanded by Lt. Col. Dana Pittard memorialized the moment with a ceremony in which the troops stood in formation as the tanks were turned in. Family members came. As the last two tanks rolled past, the soldiers saluted. “There was a lot of emotion,” said Pittard. “As a tanker, you live and breathe armored warfare.”

Not any more. Formerly a mechanized armor unit, Pittard’s battalion is now a new kind of intelligence unit which will serve as the lifeline for the interim brigade. The Reconnaissance, Surveillance, and Target Acquisition Squadron will consist of about 400 soldiers whose primary job will be to keep tabs on the enemy. They’ll be equipped with two UAVs and a full load of other sensors and gizmos for tracking enemy movements and rapidly communicating the information to the main force. “Never before has this much intelligence been concentrated in a brigade,” said Pittard.

The RSTA squadron’s mission is similar to that performed by a cavalry unit: It patrols ahead of the main force, seeking out the enemy. But its methods will be fundamentally different. “We do the reconnaissance missions of a cavalry squadron,” explained Maj. Jody Petery, executive officer of the squadron. However, he said, without tanks, “we lack oomph. We don’t have the tanks, the Bradley [fighting vehicles], or the Apache [attack helicopters] to do security operations.”

That is forcing a change in longstanding Army doctrine. Instead of “movement to contact”—in which the ground force fights the enemy wherever he encounters him—the interim brigades will “make contact, but by means other than stumbling into them and being fired upon,” said Petery. The scouts, in other words, will be the only attempt to remain stealthy while they transmit intelligence on enemy movements back to brigade headquarters. If fired upon, they will report the action and fall back.

The rest of the brigade—consisting of three mechanized infantry battalions, along with artillery, engineering, and anti-tank units—will fight differently, too. Since the new fighting vehicle will be at a disadvantage against an enemy’s tanks, it will have to fight from a distance, or with surprise, if it is to prevail.

“You don’t want to stand up and fight in a conventional war,” said David Estes, deputy director of the Mounted Maneuver Battlespace Lab at Ft. Knox, where the new brigade structure has been extensively tested. “You’ll have to pick your fight.”

New tactics will include hiding or maneuvering rapidly in order to strike opposing vehicles, such as the T-72, in the side or rear, to avoid a head-on confrontation where the interim vehicle might have to absorb a fatal first strike.

The Army expects that the new unit’s combat advantage will come not from firepower but from information. The brigades will rely upon a system of satellites, UAVs, soldier reports, and other intelligence tools to provide a common and detailed picture of what’s happening on the battlefield, in near real time, to commanders at every level.

Information Supreme

“If you can internet overhead and ground sensors, your ability to understand the situation rises geometrically,” said Maj. Gen. James M. Dubik, head of the Army’s Transformation program. Army officials expect that such information superiority will enable commanders to gather intelligence and act on it so quickly that a rapid tempo of operations will make up for any firepower shortfalls.

The 3rd Brigade doesn’t expect to start getting the new vehicles until 2001, so for now they are practicing with surrogates—a number of light armored vehicles on loan from the Canadian armed forces. Precise tactics and doctrine will only be established once the new vehicles are in place and maybe not until the brigade is actually deployed. “It will be hard to see how this will work until we actually use it,” said Estes.

That remarkable degree of uncertainty and the trade-offs that come with downsizing from the Abrams to a replacement less than one-third its size have provoked widespread criticism.

The new brigade “is undergunned and not survivable,” complained one armor officer. “This is a static outfit incapable of concentrating significant combat power.”
Rich Sinnreich, a retired US Army colonel who played an enemy command-
er in the Army’s showpiece wargame last spring, said, “We’re counting more on information than we have any right to.” Sinnreich said that, in the wargame, he flooded the friendly force’s sensors with information—almost all of it false.

Information will be such a crucial weapon that the high ground may be reserved not for combat forces but for computer technicians. Under a concept commanders at Ft. Lewis call “maneuvering the network,” the goal of the brigade’s movement will be not to gain the best fighting positions but to position the brigade’s command-and-control vehicles, radio relay platforms, and other computer processing equipment in the best spot for transmitting and receiving. It’s a daunting concept. “Cisco [the computer-networking company] has told us no company in the world is trying to set up this kind of Internet,” said Col. Tony Coro-
alles, chief of staff for Transformation.

Krepinevich argues that the Army should be experimenting with a number of different force designs, tailored to the kinds of conflicts the Army is likely to encounter in the future—one for urban warfare, another for deep strike missions using precision artillery and attack helicopters, and perhaps a third operating in an environment where the enemy has cut the logistics tail.

The Army’s own analyses confirm that it still has numerous holes to plug. A wargame run by the Army’s Training and Doctrine Command showed that, in addition, to being vulnerable to an armored assault, the interim brigades have other weaknesses. The unit’s heavy reliance on counter-battery artillery, for instance, required more battlefield sustainment than is programmed into the brigade. That means the unit could become overdependent on big supply depots that are increasingly easy for an enemy to target.

Lack of Lift

An August study by the General Accounting Office, a Congressional watchdog agency, pointed out that the Air Force does not have enough airplanes to meet the Army’s airlift requirements, a fact that raises questions about the logic of designing a force for 96-hour deployment.

The report also pointed out that the Army’s new deployment time-
lines depend heavily on the Air Force and the Navy.

Army leaders remain unfazed. “The lift allocation is a function of the crisis,” said Dubik. “It will be there if the crisis is big enough.”

Dubik further disputed claims that the new brigade is undergunned.

“This brigade combat team would have no difficulty going against an up-armed enemy in the right ter-

rain,” he insisted. “I’d take it to Korea and dare a mechanized force to at-
tack it. I’d use the RSTA battalion and the anti-tank units to set up am-
buses so that armor would not have a chance.” The same would hold true for Kosovo, he said.

Fighting with these outfits in the Iraqi desert, with fewer terrain fea-
tures, would be tougher. Army analysis shows that, in Operation Desert Shield in late 1990, the new brigades would have been a more effective screen than the troops of the 82nd Airborne. Even so, said Dubik, “I wouldn’t counterattack with it.”

The Army calls its new brigades “interim” because it has grander plans. The service hopes that, by 2012, it will be able to field a Future Combat System that is as durable and lethal as an M1 but deployable as the 20-ton interim vehicle. Even though research and development contracts would have to be signed by 2003, Army scientists haven’t yet sketched out the details.

Some broad concepts have emerged. The Future Combat System will probably be a network of several vehicles. A system of UAVs may gather targeting data, then transfer it to an unmanned rocket or missile launcher. A human controller may be in a third vehicle, somewhere behind the front lines, to OK all weapons launches.

Making those components survivable against the armor penetrators on the market in 2010 will require some breakthroughs in armor technol-

ogy. One concept is “active armor” that will automatically sense when a round is inbound and send out sheets of flak to deflect the weapon. The Army may also experiment with ceramics and other high-
tech materials.

“The scientists told us at first, we’re not sure [the new penetrators] can be defeated,” said Bell. “Now, they’re saying it’s feasible.”

If there’s a note of encouragement in that, it’s that the odds are prob-
bly better than the prospect of getting an Abrams tank across a Balkans
bridge.