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Fighting Future Wars

U.S. military planners hope to rely on improved versions of the technologies tested in the Gulf War to help fight the next Saddam Hussein. They may be preparing for the wrong conflict

by Gary Stix, *staff writer*

George Patton, Dwight Eisenhower and Colin Powell all came to Fort Leavenworth on the Kansas bluffs overlooking the Missouri River to learn about the tactics and weaponry they would need in battle. This past May a new generation of military leaders peered into Sun workstations at this former Indian-fighting post to discern the future of warfare. On their screens, a North Korean force rolled across the demilitarized zone; short-range ballistic missiles carrying chemical weapons hit their mark in South Korean cities. U.S. and South Korean army divisions, with support from U.S. Marines and a French and a British brigade, slowly drove the invading troops back.

One of the U.S. units, a division called a mobile strike force, pretended to mimic the digital fighting force of the future. Pictures of the battlefield, supplied by ground, airborne and satellite sensors, provided a field commander with a sweeping view of the disputed territory, even at night. This "God's-eye" battlefield perspective helped to cement a victory.

The hostilities were what is known in Department of Defense parlance as a "Desert Storm equivalent"—a standoff against a "rogue state," an Iran or an Iraq or a North Korea. For the Pentagon, rogues are the most likely new enemy, the nuclear pretenders that pose the real menace in the post-cold-war world. According to the Clinton administration's 1993 "bottom-up review," the document that assesses the current military force structure, the U.S. should be prepared to fight two Desert Storm equivalents almost simultaneously.

But the young officers may be getting the wrong perspective from the images on those color screens. The classic rogue power relying on heavy-handed, Soviet-style fighting techniques may be an endangered species. Policy experts, technical gurus and defense contractors have begun to study a range of other potential threats, from a newly hatched superpower to a regional power with dramatically altered fighting tactics, to legions of mercenary hackers that bring down banks and stock exchanges with computer viruses and other malevolent software. The vast array of scenarios is a measure of the speculative turn that has gripped the military-planning establishment. Without the tangible presence of a superpower, new menaces can emerge from any quarter. At the same time, the most pressing drain on military resources is created by the Bosnias and the Haitis, the smaller-scale conflicts and crises that often turn contemporary soldiering into glorified police work.

The American military's high-tech expertise was honed over decades of cold war with the Soviet Union. During the 1980s, the Soviets put forward the notion that military forces should be able to detect an enemy and destroy it from a distance. As radar-laden surveillance aircraft and intelligent antitank missiles became more pivotal in the contest, however, the U.S. acquired a clear advantage. "If the key to future war-

BATTLEGROUND CIRCA 2020 may replace massed troops and armor with networks of intelligent mines and unpiloted drones that can perform reconnaissance and launch or plant weapons. Highly dispersed special forces may scout for targets and evaluate battle damage. Remotely fired missiles may become the main instrument for destroying enemy targets.

fare would be the rapid processing of electronically acquired information, how could a society that was virtually incapable of manufacturing a simple personal computer keep up in the technological race?" writes Eliot A. Cohen of the Paul H. Nitze School of Advanced International Studies at Johns Hopkins University.

Replaying Desert Storm

World War III never came, but the Gulf War did. The U.S. armed forces held up the victory over Iraq as proof of the validity of their technophilic approach to fighting, involving intelligence from air and space and the use of stealth fighters and laser-guided bombs. (No matter that, notwithstanding the domination of the air, the coalition forces missed destroying installations involved in the Iraqi nuclear weapons program and mobile missile launchers.) Much of the subsequent effort of military leaders has gone toward burnishing the accomplishments of the Gulf. The army's war games, such as the exercise at Fort Leavenworth, have been oriented toward improving the digital layout of the battlefield—in essence, fighting a more efficient Gulf War.

A coterie of defense analysts, both inside and outside the Pentagon, have nonetheless begun to explore concepts of high-tech war that move beyond a replay of Desert Storm. The inspiration for some of this soul-searching comes from the Pentagon's Office of Net Assessment, a future-oriented planning office headed by Andrew Marshall, a former cold-war strategist.

One reason for a reassessment is that, within a few decades, the threat to the U.S. may come not from a small rogue regional power but instead from what has come to be known as a "peer competitor": in essence, a new superpower, such as China, a resurgent Russia or perhaps even India. In any future conflict, the U.S. and its allies may not have a monopoly, or even a strategic advantage, in the arena of advanced technology. Furthermore, regional powers have learned their own lessons from the Gulf War and are looking for ways to use and counter precision-guided weapons, computers and space-based communications.

Andrew F. Krepenevich, Jr., a former army colonel who collaborated with Marshall, now directs the Defense Budget Project, a think tank in Washington, D.C., that continues to examine radical changes in the character of warfare. He points to articles in Third World technical journals that talk about the Gulf War as the example of what to avoid when confronting an "extraregional superpower," a code phrase for the U.S. or any large industrial state. In a paper published af-

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ter the Gulf conflict, V. K. Nair, a retired Indian military officer, outlined how a developing nation could have countered "ill-conceived adventurism" by the U.S. by crippling naval forces with land- or submarine-based nonnuclear missiles. "The possibility of the loss of one or more aircraft carriers would be a totally unacceptable risk in terms of economic and personnel losses for the United States," he wrote.

In world arms markets, an advanced weapons stockpile is available virtually for the asking. Short-range ballistic missiles and, in particular, information technologies have become commodities. Unlike nuclear weapons systems that often arose from secret work at national laboratories, Krepenevich points out that information systems have come from commercial companies. Although the U.S. and the Soviet Union largely succeeded in preventing access to the technologies needed to fabricate nuclear weapons, they would now be incapable of doing so for the memory chips or microprocessors that are the brains of "smart" weaponry.

A Real No-Man's-Land

Think tanks and strategists have begun to ponder what it will mean to fight in the 21st century. Many of their speculations on what is often called a "revolution in military affairs" seek a way to fight another large power without resorting to nuclear weapons or to find the means to stay far enough away from an adversary to avoid a nuclear menace or chemical or biological armaments. Future war, in fact, may let former nuclear war planners retread a few of the scenarios conceived for a face-off with the Soviets. It might rely on nuclear-weapons delivery vehicles—cruise or other long-range missiles—armed with conventional warheads.

The lethality and precision of the weaponry, and the ability to detect an enemy virtually anywhere, suggest it will become all quiet on every front—the idea of close engagement, still a fixture of the Gulf War, will fade. Michael Mazaar of the Center for Strategic and International Studies describes "disengaged" conflict, a war fought from a distance that proceeds without a massing of troops and weapons. Missiles fired from hundreds or thousands of miles away, or even from the continental U.S., might converge on a single location or several strategic targets at once.

In this long-term scenario, aircraft carriers, tanks, fighters and bombers may cease to have a primary role in the postmodern theater of war. Most U.S. forces might be stationed at home. During the first stages of a conflict, long-range missiles would destroy air defenses or other key infrastructure. Later, inexpensive staging platforms would be needed to field large numbers of missiles, weapons systems far less expensive than the submarines and aircraft carriers now used. Some analysts have even toyed with the notion of a missile-laden Boeing 747 or a subsurface tug carrying a barge crammed with projectiles.

The navy, in fact, has begun to consider building an arsenal ship, which might be a tankerlike vessel loaded with hundreds of vertically launched cruise missiles or other projectiles. The arsenal ship, which would be partially submerged to avoid detection, is estimated to cost less than a fifth of the purchase price of a $4.5-billion aircraft carrier. Instead of a crew numbering in the thousands, it might need fewer than 50 people.

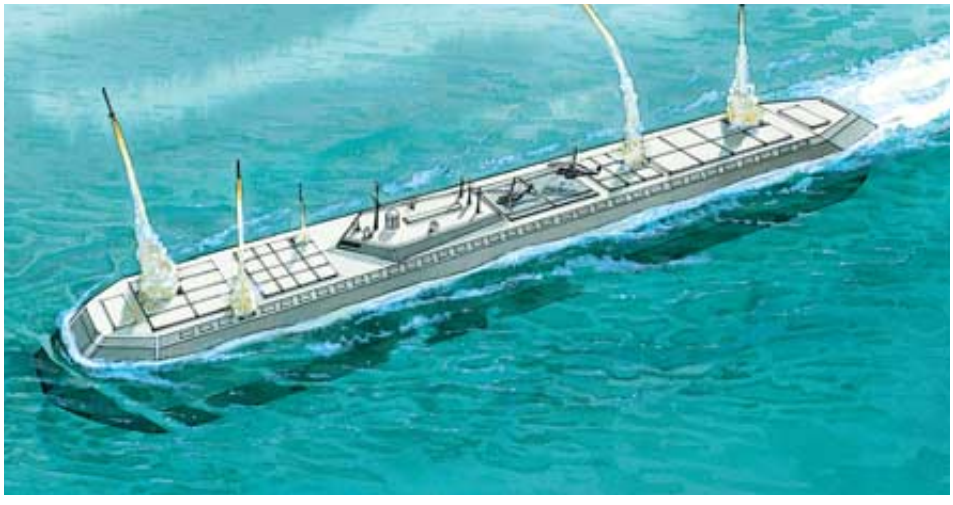
Big changes would occur in land warfare as well. At least in the early stages of a conflict, in a step toward the science-fiction fantasy of robotic warfare, most human soldiers might be kept well away from the battlefield. The reconnaissance and targeting role will increasingly be taken over by unpiloted aircraft, highly novel versions of those flown during Desert Storm and in Bosnia. Tiny, low-cost sensors in the air or on the ground might be deployed by the hundreds or thousands, forming a network that could beam a composite image of an unfolding skirmish.

Electronic intelligence today depends heavily on large aircraft filled with sensors—the air force's advanced warning and control system (AWACS) or the army's joint surveillance target-attack radar system (JSTARS). Precisely because the battle view supplied would become ever more crucial, an AWACS or a JSTARS would be increasingly vulnerable: if shot down, it could cause an electronically illuminated battlefield to go dark. Safety in numbers may be the answer. A research group at the Massachusetts Institute of Technology's Lincoln Laboratory has contemplated building drones smaller than a model airplane. Eventually, large numbers of these minute craft could collectively act as battle surveyors. Sikorsky Aircraft has fashioned a flying-saucerlike vehicle, powered by rotary motors, that could act as a scout or drop mines or sensors. "If you have 1,000 unmanned aerial vehicles, you can afford to lose 100," says Martin C. Libicki of the National Defense University.

At least in theory, land-based weapons could also become smart, numerous and relatively cheap. Lethal robots may look less like the Terminator than like a mine. Military contractor Textron Systems Division, for example, already has a "wide area mine" that uses sensors to detect a tank or helicopter and then launches projectiles at it.

The few manned units sent to the battlefield would consist of dispersed special operations units that could perform reconnaissance missions or determine battle damage. Contingents spread out over the landscape might ride in stealthy attack helicopters or commercially purchased Jeeps, the chassis only lightly armed but crammed full of sensors and communications and jamming gear. Toward the latter stages of a conflict, more conventional armored and infantry forces would arrive; combat might still end by occupying territory.

Future war might become a contest



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ARSENAL SHIP, with a design perhaps based on that of commercial tankers, could carry hundreds of missiles. The semisubmersible vessel might one day play a strategic role—deploying weapons to their targets—that now is filled by the airplanes on a carrier.

for domination of space, as both sides try to deploy and preserve communications and surveillance satellites. Concocting lasers or weapons that employ the kinetic energy of a high-impact collision to kill satellites might give aging Strategic Defense Initiative scientists a chance to dust off old research papers. Single-stage-to-orbit launch vehicles might be needed to place a network of satellites over a battle area.

The most important changes may relate not to the technology but to the way these systems transform military organization—and the pace at which decisions are made. "The real innovation may be the ability to integrate sensors and weapons to coordinate forces effectively," says Andrew Marshall of the Office of Net Assessment. In the year 2020 the panoramic image of battle that emerges from the mesh of sensors may make military commanders more into split-second air-traffic controllers than deliberative strategists and tacticians. The same commander may order weapons strikes from air, land or sea—or maybe even space. In some cases, targeting information may be beamed directly from a satellite or an unmanned aerial vehicle to a soldier in the field.

War by Wire

Debate on high-tech fighting culminates in the question of whether information technologies—a computer virus, for one—could make conventional military hardware obsolete and whether they would make possible a virtual invasion of the continental U.S. A battle of the bits would be fought by destroying an enemy's information assets, its financial, electrical, telecommunications and air-traffic-control networks. Direct strikes at the military would not be ruled out: cracking a government computer is already a not infrequent hacker rite of passage. In addition, more than 95 percent of military communications travel over public networks.

Daniel T. Kuehl is a professor of military strategy at the National Defense University, who earlier in his career worked for the Strategic Air Command planning where to aim nuclear weapons at the Soviet Union. He now teaches at the School of Information Warfare and Strategy, established two years ago at this graduate military school. The program offers courses in cyber-war similar to those that have recently sprouted throughout the military. It joins a number of offices in the Pentagon and the various services that bear the name "information warfare."

Kuehl's students will return to the armed forces and other government posts to help defend against attacks on information resources. "How do you know you're under attack and who did it?" Kuehl asks his classes. Other points for discussion: Does the military have any responsibility for defending the stock market against malicious attack? Should a nation declare war when a major financial system is brought down through electronic means? Should it respond with conventional or nuclear weapons? When is victory achieved in such a conflict? Should the U.S. engage in offensive information maneuvers to destroy or muddle databases an enemy uses to choose targets?

Tofflerian Wave Theory

These questions often get mixed with a large helping of popular sociology. The School of Information Warfare and Strategy may be the first graduate program to frame a course of study around the ideas of mass-market authors Alvin and Heidi Toffler, perhaps best known these days as consultants to Speaker of the House Newt Gingrich. The Tofflers have had a pervasive influence on the military. In a monograph entitled "Envisioning Future Warfare," recently retired army Chief of Staff General Gordon Sullivan cites Alvin Toffler in 10 of 38 references.

At the school of information warfare, the world becomes segmented by the Tofflers' "wave" theory, the notion that society—and war itself—is passing into a postindustrial information age that follows a "second wave" industrial era characterized by the use of tanks and bombers and a "first wave" agrarian economy that employed muskets and spears. "As the Third Wave war-form takes shape, a new breed of 'knowledge warriors' has begun to emerge—intellectuals in and out of uniform dedicated to the idea that knowledge can win, or prevent, wars," the Tofflers write earnestly in War and Anti-War.

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Elite corps of knowledge warrior-hackers may not be able completely to replace conventional divisions of 20,000 armed grunts. John I. Alger, dean of the information warfare school, lapses into Tofflerese to explain why. "Most of the world still has second-wave armies, and we still have to concern ourselves with physical destruction as a threat to the U.S.," he says.

This vision of wars to come may emerge from reading too many futuristic treatises. Not everyone in the defense establishment warms to embracing the new fighting methods so quickly. The military still treasures its aircraft carriers and fighter planes. Reticence may also stem from a fear that the new technologies may not work as expected. Two sides lobbing missiles at each other may revive an apocalyptic form of trench warfare in which each side bloodies the other but fails to achieve victory. "It may be a long-range equivalent of 1914," says Daniel Gouré of the Center for Strategic and International Studies in reference to the World War I stalemate.

And flooding more information to soldiers may not give them a better grasp of an unfolding battle. The U.S. military has wrestled with the travails of the information age since the Vietnam War. Instead of streamlining the management of war, the expanding communications infrastructure in Southeast Asia led to a burgeoning of support personnel. Five percent of all troops there—a unit larger than a division—handled communications. In his 1985 book, Command in War, historian Martin van Creveld of the Hebrew University in Israel notes that "the communications establishment made possible by the revolution in technology, and necessary in order to deal with the consequences of specialization and complexity, had itself turned into a major source of both specialization and complexity. The cure was part of the disease."

Things have not necessarily changed. The U.S. Army has stated its intention of using high technology to decrease the size of its forces. But this past August, in a war game that deployed armored units to test digital communications systems, soldiers found they had more work—time spent putting information into computers or connecting one system to another, according to a report in the independent newsletter Inside the Army. After the exercise, an officer offered the opinion that the targeting efficiency of a new tank, the M1A2, might improve fighting capability more than advanced digital communications could.

In another war game in 1994, a digital battalion became confused when a nonautomated opponent lit fires to fool, or "spoof," infrared sensors deployed by the high-tech forces. What is more, the digital soldiers performed no

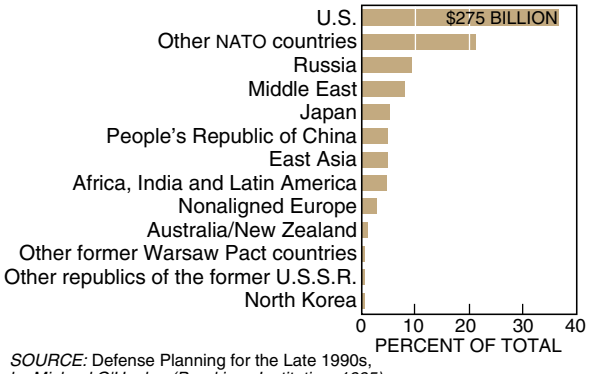
A Faster, Cheaper, Smaller Military?

Defense budgets have dropped somewhat in inflation-adjusted dollars from their cold-war average of $300 billion. Nevertheless, with expenditures totaling about $260 billion for the current fiscal year, the U.S. spends more on defense than every prospective enemy and neutral country combined. "We could probably cut defense spending by $35 billion and still remain the world's preeminent military power," notes Lawrence Korb, a senior fellow at the Brookings Institution and a former assistant secretary of defense in the Reagan administration. (The chart below conveys an idea of the magnitude of U.S. spending for 1993.)

A war that emphasizes precision-guided missiles and commercially procured information and transport technologies might cost less to fight than one that relies on large weapons systems, a Seawolf submarine and an F-22 fighter. Moreover, readying military forces to fight two almost simultaneous Desert Storm–like conflicts may prove an unnecessary extravagance in an era of budget tightening. The Defense Budget Project, an independent research organization, has recommended that preparing to fight only one regional conflict may be a means to free up funding to experiment with new technologies—an arsenal ship or networks of unmanned aerial vehicles.

But the track record on embracing wholly new types of warfare is not particularly good. In 1978, more than a decade before the end of the cold war, physicist Philip Morrison and political scientist Paul F. Walker wrote a book on military spending that suggested that a relatively inexpensive national defense could be built around precision munitions, thereby forgoing vulnerable weapons platforms such as the aircraft carrier. Budgets, they asserted, could be cut by 40 percent. Their ideas, of course, have remained no more than academic treatise. "We want to say warfare is changing, but not ours," Morrison remarks today.

GLOBAL MILITARY EXPENDITURES IN 1993



SOURCE: Defense Planning for the Late 1990s, *by Michael O'Hanlon (Brookings Institution, 1995)*

Scenarios for future wars, in fact, could simply become a means of preserving the status quo. "Is the Pentagon's Revolution in Military Affairs a scam?" writes Steven Aftergood of the Federation of American Scientists. "Could it be just another, more seductive way of packaging military programs to help sustain defense budgets at a time when the long-standing military justification for existing structures and programs has diminished sharply?"

better than other units that had fought the same opponent without advanced equipment.

Issues of cost and technical feasibility also pervade the debate over the naval arsenal ship. The new vessel might not be such a bargain. It has to travel with other ships for protection. An electronic message posted on the Internet lampooned the idea: "One low-tech incoming, and we could double the national debt," a suggestion of what might happen to an arsenal ship if targeted by an inexpensive missile.

Low-Intensity Conflict

If the military is looking for the nature of war in the next century, it may be looking in the wrong place. By some accounts, the generals have yet to learn the lessons—or adapt their war-fighting methods—to the type of conflict that has predominated since World War II. This argument represents a broadside on the school of military thinking associated with Carl von Clausewitz, the Prussian army officer whose writings on war are often distilled to the cliché that war is a continuation of politics by other means. This intersecting notion of politics and armed conflict can be linked to the idea that the modern state and its armies are the only legitimate purveyor of organized violence. Anyone else taking up arms is either an outlaw or a bandit.

A number of military historians have declared the Clausewitzian world of states fighting states to be effectively dead. In his book The Transformation of War—published, in a grim irony, on the day the ground offensive of the Gulf War was launched in 1991—van Creveld argues that the terms of modern warfare and the costs of advanced weapons systems are making traditional combat ever less likely. In a nuclear era, all sides must exercise restraint or risk mutual annihilation. This measure of self-control, van Creveld believes, also extends to the use of chemical and biological arms. Few nations would dare to unleash them against an enemy, for fear that the retaliation, by the attacked state or one of its more powerful allies, might be a nuclear strike. (Unfortunately, chemical and biological weapons might still become the inexpensive weapons of choice among terrorists, who would not be constrained by this vulnerability.)

In a world populated by nuclear weapons and their cousins, war has not gone away but simply shifted to another arena. Van Creveld maintains that most conflicts—Somalia, Rwanda and even Bosnia—do not involve state against state and that these wars take place largely without deploying advanced weaponry. Of the 100 or so wars fought since World War II, more than 80 have been characterized as low-intensity conflicts, many of which are civil wars or ethnic hostilities. They are often engendered over scarcity of resources [see "Environmental Change and Violent Conflict," by Thomas F. Homer-Dixon, Jeffrey H. Boutwell and George W. Rathjens; SCIENTIFIC AMERICAN, February 1993]. Low-level struggles, despite the modest sound of the name, often attain genocidal levels of bloodshed. The Nigerian civil war claimed the lives of more than one million people from 1967 to 1970, and turmoil between Hindus and Muslims in India took a toll of one million from 1947 to 1949. The neat categorizations on the nature of warfare set out in the Clausewitzian universe have been completely lost in the strife.

Peacekeeping has therefore become the order of the day. Unfortunately, that order flummoxes many in a military elite that has spent decades preparing to stop waves of Soviet tanks from rolling

across across the West German border. These officers, too, still experience lingering effects of a post-Vietnam syndrome, that soldiers should leave the barracks only to protect clear-cut threats to the national interest. In a 1993 U.S. Army manual this type of quasi-police activity is relegated to a chapter with the Orwellian title "Operations Other Than War."

The various service branches do train for what is reduced to the inevitable acronym "OOTW." The army, for one, has set up a peacekeeping institute at its Army War College in Carlisle, Pa. But the military and Congress have a decidedly ambivalent relationship to these types of conflicts. Chairman of the Joint Chiefs of Staff General John Shalikashvili commented last year: "My fear is we're becoming mesmerized by operations other than war, and we'll take our mind off what we're all about, [which is] to fight and win our nation's wars."

Nevertheless, the military has devoted some effort to devising weapons and tactics more appropriate to the next Somalia than the B-2 bomber and the Trident submarine are. The army, the Department of Energy, the Advanced Research Projects Agency and other research institutes have labored on technologies that would minimize the bloodshed, or at least the public-relations sting, of these nasty and brutish affairs.

Lawrence Livermore National Laboratory has devised an infrared sensing system, called Lifeguard, that could be used by peacekeepers or even police to detect the precise location from which a sniper's bullets originate. The Advanced Research Projects Agency has equipped U.S. soldiers on a peacekeeping mission in Macedonia with a combination rescue-radio and satellite-location receiver that beeps when a soldier or vehicle gets within 500 meters of the Serbian border. (Crossing the border inadvertently could cause an international incident.)

A set of unusual technologies has begun to contribute to peacekeeping. "Nonlethal" weapons are intended to stun or immobilize but spare their victims. A chemical that makes a street slippery or sticky, rendering it impassable to traffic and passersby, may deflect public condemnation. "Rather than shooting a 14-year-old boy, you stop him with sticky glue," says Andrew J. Bacevich of the Nitze School at Johns Hopkins. "You can do an operation without having the media lambaste you for inhumane and cruel treatment."

U.S. marines dispersed a mix of sticky foam, concertina wire and small, pointed objects that look like jacks to hold off crowds of Somalis during the withdrawal of U.N. peacekeeping troops in early March, says Charles S. Heal, the marine officer who coordinated the use of these weapons. The troops had a five-minute respite before the Somalis put down planks and used a number of other ploys that enabled them to traverse the barrier.

Threats of force were perhaps as effective in Mogadishu. Training a visible laser used to illuminate targets on trespassers who made their way onto a runway kept loyalists to warlord Mohammed Farah Aidid outside the airport perimeter. "The guys had seen enough Schwarzenegger movies to know it worked," says Anthony Fainberg of the recently disbanded Office of Technology Assessment.

The nonlethals are subject to the same dynamics as other weapons technologies—any armament engenders countermeasures. "Sand spread on the stickum-coated pavement would presumably stick (what else?) and provide a sandpaper surface on which one could walk or drive," writes Richard L. Garwin, an IBM fellow and a longtime adviser on defense technologies and arms control. "Before sand could be spread, attaching a pad of newspaper on the sole…would allow one step per page—enough to cross a small region of stickum-covered pavement at high speed."

Nonlethals also bear a taint of deadliness and may prove inhumane. "The grime from hell," as Garwin calls one hypothetical weapon, a thin layer of paint that can be sprayed onto an aggressor's windshield to obscure vision, could certainly cause a fatal loss of vehicle control. An international ban was recently approved on lasers that permanently blind victims, a type of weapon classified as nonlethal.

Low-Tech Retaliation

Soldiers armed with weapons that do not kill face a fundamental dilemma in fighting a war. "To paraphrase Clausewitz," van Creveld says, "those who think war can be waged without bloodshed should be wary of an opponent coming along and cutting off their heads." While the West concocts kinder and gentler weapons, determined irregular fighters in the Third World (or elsewhere) may fail to observe a protocol that avoids deaths. The quintessential postindustrial war machine is a Somali "technical," a pickup truck with an automatic weapon mounted in the back.

Moreover, a Somali warlord or his ilk may not have to gain an ultimate strategic advantage to win. He may indulge in the subtleties of information warfare and global public relations by manipulating the power of satellite news broadcasting to influence an event without recourse to superior weaponry. The impact of television imagery of a dead U.S. soldier being dragged through the streets of Mogadishu most likely contributed to the U.S. decision to call off a hunt to track down Aidid and to set a date for a withdrawal of its troops.

A tribal leader, meanwhile, may conduct information warfare with technologies that predate Thomas Edison. Aidid's followers in Somalia reportedly communicated U.S. troop activity at the Somali airport to their peers by beating wooden sticks on oil barrels. To avoid detection, Aidid shunned use of the telephone altogether.

Messages encoded as drumbeats will leave suites of infrared sensors undisturbed. Technological sophistication, a prerequisite for strategic dominance in a regional theater of war, may thus founder in the chaos of a Saigon or a Mogadishu. "We're getting a lot of clever ideas about how to fight a Gulf War more efficiently," remarks Libicki of the National Defense University. "But we rarely get anything about how to fight a Vietnam more efficiently."

The disparity between war as a technological tour de force and the realities of low-level conflict have yet to be reconciled by the leaders of large standing armies. Precision bombing may achieve some success in Bosnia. But decisions to proceed with air strikes become muddied when U.N. troops are chained as hostages to Serb military targets. War at a distance—the vision put forth by the seers of future conflict—may quickly erode in the ambiguities of OOTW. Peacekeeping may confound the complex stratagems of nuclear planners, who have defined the nature of warfare for the past half century. The fragile cold-war balance of power has given way to a fog of peacetime.

Further Reading

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