Chapter One

Real Cyberwar

Resistance to Pure War can only be based on the latest information.
—Paul Virilio and Sylvere Lotringer (1983, p. 136)

Simulation and Genocide

During the Bosnian peace talks of 1995 the negotiators for the United States used state-of-the-art real-time simulation computer technoscience to bring a temporary halt to the genocide. At a key point in the Dayton Accord meetings U.S. officials took the Bosnian, Croatian, and Serbian presidents into the “Nintendo” room where they could see a real-time three-dimensional map of the disputed territories. Secretary of State Warren Christopher bragged that “We were able to, in effect, ‘fly’ the people over the area they were talking about, showing them the map on a large video screen so they could actually see what they were talking about.” This is why the negotiations were held at Wright-Patterson Air Force Base in the first place; it is where the term “bionics” was coined (Steele, 1995), where science fiction writers are invited to plan for future war (C. H. Gray, 1994), and where virtual reality and human–machine interface applications are developed. The French, Russians, and other Europeans excluded from this show were, diplomatically speaking, pissed off. Still, it worked, even though, as the French noted, the map did not include data on the ethnic origin of the population. The promise of total information, which for many today means total power, was enough to convince the warring presidents.

This incident was just one of literally millions of war-related events that happen every day. But its mixture of ancient hatreds with the newest of technology in the service of intimidation, maybe even peacemaking, at the behest of the world’s “only” superpower3 make it a good one to unpack. It reveals, among other things, how powerful, but limited, the forces pushing for peace and stability are. The international model of open war now equates

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war to a virulent disease, when it does not see it as a righteous cause, which it usually does. So while everyone calls for peace, every conceivable justification is mobilized for war, including God, blood, gold, honor, oil, water, history, and the need for peace itself. And many who make these justifications are even sincere, none more so than those who used the latest computer technology to attempt the inoculation of potential combatants against the seductions of more genocide in blood-soaked Bosnia.

The Bosnian conflict, in which satellites are used to find the mass graves of the recent victims of thousand-year-old hatreds, isn't the only confusing conflict. Consider these:

- PSYOPs (psychological operations) U.S. troops battle voodoo imagery in Haiti.
- Russian troops attempt with little success to crush cell-phone-linked Moslem rebels in the Caucasus.
- Religious revolutionaries attack liberal regimes with assassination (Algeria, Egypt), bombs (United States, France), and gas (Japan), even in alliance with their hated enemies, as with the Orthodox Jewish and Hamas Moslem alliance in Israel against peace. On June 15, 1995, President Clinton orders the United States to prepare for bioterrorism (network TV reports, January 30, 1996).
- Zapatista insurrectionists shake Mexico using a combination of traditional and cyber-guerrilla tactics and strategies.

But this bricolage, this . . . mess, is not unexplainable. It is just that the explanation isn't simple. Imagine war as Proteus, the Greek demigod who could change his form as long as he touched the ground. Hercules had to hold him up in the air during their wrestling match in order to defeat him. Well, protean war is wrestling with the present, trying to find a way to survive as a coherent creature (discourse, culture, or way of life, the label can vary) in the face of extraordinary changes in the technologies and politics of conflict.

War explodes around the planet, relentlessly seeking expression in the face of widespread moral, political, and even military censorship, since the old stories of ancient tribal grievances and of the supremacy of male courage, and therefore war, don't sell everywhere. Peace even seems particularly popular and much effort, much military effort, goes into what is labeled peacemaking, but the situation remains chaotic. Continual technoscientific changes have led to the incredible spread of mass weapons (chemical, biological, nuclear [CBN]) to dozens of states, nationalities, and even groups, while the continual outbreaks of war are almost contained by the spread of worldwide high-speed communications, the integration of the world economy, and the proliferation of peace initiatives.
Just what is happening? It is the argument of this book that war is undergoing a crisis that will lead to a radical redefinition of war itself, and that this is part of the general worldwide crisis of postmodernity. While this crisis is far from resolved, the range of possible outcomes is becoming clear. In terms of war there would seem to be two main future options: a utopian redefinition of war's function (simulation), or some sort of horrific, even apocalyptic, *reductio ad absurdum* of real war's current logic (genocide).

To sort out the whys and the maybes of these possible futures a great and complicated story needs to be told—the story of postmodern war. It starts with a discussion of the label itself.

**Why “Postmodern” War?**

The mania of the last few hundred years for labeling new types of war has a sound basis. War seems to be changing more quickly then it ever has before, while it assumes unprecedented destructive power as well. Labels can be misleading, as I will show in the case of “cyberwar” below, but they are also important. I don't choose mine lightly. Whether, for example, the Persian Gulf War is seen as a new form of war or as a continuation of older types is more than an academic issue.

“The Persian Gulf conflict,” intones *Business Week*, “will almost certainly come to mark the transition between two forms of war.” The magazine goes on to specify what it considers the most important elements of this “new war”: (1) “the integration of high-technology-based systems”; (2) “a huge array of computer and communications systems”; and (3) the realization that “politics and public relations play” a crucial role “in achieving military objectives” (*Business Week* Staff, 1991a, b, c, pp. 39, 42, 37).

But this is not new. It is not all that different from Vietnam. While the War for Kuwait certainly broke some new ground (and most violently), for the last half of this century it has been clear that war is changing fundamentally. The more insightful observers have noticed the implications of high-tech weapons, especially computers, and the permanent military mobilization that has existed since 1945. They have called this new type of war many things, among them: permanent war (Melman, 1974), technology war (Possony and Pournelle, 1970), high-technology war or technological war (Edwards, 1986c), technowar or perfect war (Gibson, 1986), imaginary war (Kaldor, 1987), computer war (Van Creveld, 1989), war without end (Klare, 1972), Militarism USA (Donovan, 1970), light war (Virilio, 1990), cyberwar (Davies, 1987; Der Derian, 1991; Arquilla and Ronfeldt, 1993), high modern war (Der Derian, 1991), hypermodern war (Haraway, personal communication, 1991), hyperreal war (Bey, 1995), information war, netwar (Arquilla and Ronfeldt, 1993), neocortical warfare (Szafranski, 1995), Third Wave
War (Toffler and Toffler, 1993); Sixth Generation War (Bowdish, 1995), Fourth Epoch War (Bunker, 1995), and pure war (Virilio and Lotringer, 1983).

Though all of these labels have something to recommend them, none do justice to the complexity and sweeping nature of war’s recent changes. For example, Virilio and Lotringer’s “pure war” does capture poetically the deep penetration of war into contemporary culture, certainly in the West, especially into politics. But in a strong sense the mass annihilation of civilians in World War II was pure war, the obliteration of Hamburg, Dresden, Tokyo, Hiroshima, and Nagasaki countering that of Warsaw, Rotterdam, and Coventry, not to speak of the earlier “Rape of Nanking” and the “Final Solution” of Treblinka, Auschwitz, Dachau, and the other death camps. War was total. What we have now is very “impure” war, called “imperfect” war by some, coming to the fore because pure total war has become, thanks to technoscience, suicidal. War is diffused throughout the culture, helping shift gender definitions, structuring the economy, selling products, electing presidents, and boosting ratings. But the actual battles are not decisive or heroic; they are confusing, distant, and squalid. More is happening to war than just high technology, or computers, or speed as light, or cybernetics, or the militarization of information.

I call it postmodern war. Why choose “postmodern” over the other possible labels? There seem to be two good reasons. First, modern war as a category is used by most military historians, who usually see it as starting in the 1500s and continuing into the middle or late twentieth century. It is clear that the logic and culture of modern war changed significantly during World War II. The new kind of war, while related to modern war, is different enough to deserve the appellation “postmodern.” Second, while postmodern is a very complex and contradictory term, and even though it is applied to various fields in wildly uneven ways temporally and intellectually, there is enough similarity between the different descriptions of postmodern phenomena specifically and postmodernity in general to persuade me that there is something systematic happening in areas as diverse as art, literature, economics, philosophy, and war.

This is particularly true of the importance of information to postmodernity. As a weapon, as a myth, as a metaphor, as a force multiplier, as an edge, as a trope, as a factor, and as an asset, information (and its handmaidens—computers to process it, multimedia to spread it, systems to represent it) has become the central sign of postmodernity. In war information (often called intelligence) has always been important. Now it is the single most significant military factor, but still hardly the only one.

We have been living in the era of postmodern war since 1945 and cold wars are an integral part of it. Edward Luttwak defines cold war as: “International conflict in which all means other than overt military force are used”
Real Cyberwar (1971, p. 244). The United States versus USSR “Cold War” (capitalized) was the most famous of these, but it wasn’t unique. Calling cold war (lowercase) info- or cyberwar doesn’t change it significantly.

Today, all confrontations between the nuclear powers are constrained from total war by the threat of nuclear weapons and other devastating technologies. The tensions between the United States and any other Great Power are relegated to low-intensity conflicts with proxies, political struggles, and economic competition. Postmodern war depends on international tension and the resulting arms race that keeps weapons’ development at a maximum and actual military combat between major powers at a minimum. Real wars still happen, sometimes despite what the Great Powers wish. High-intensity, large-scale war could always break out, which in part explains the growing efforts to constrain violent conflicts. But continuing illusions about the nature of war itself bedevil any attempts to bring it under control. War cannot be managed: it is not a science; it cannot be controlled. But the seductive logic of control theories is incredible. The latest batch of cyberwar and information theories are particularly sexy—and dangerously limited.

**Cyberwar, the Next Step?**

Information war must be the hot new thing. It’s been on the cover of *Time*, Newt Gingrich has given a speech about it, Jackson Browne has a song called “Information Wars,” Tom Clancy has a novel, and RAND has a big research review. “Cyberwar is Coming!” exclaims the title of John Arquilla and David Rondfeldt’s influential article from 1993. Not the kind of staid academic warning one expects from analysts in RAND’s International Policy Department or from political science journals. The article had little in it that hadn’t been mulled over by non-RAND academics, science fiction authors, and middle-level military officers who have been worrying about the impact of the information revolution on war since the early 1980s, and it wasn’t even much different from certain currents of military thinking that can be traced through the whole history of war back to Sun Tzu’s *The Art of War*. But it has certainly caught on, spawning dozens of similar articles and coverage in the mainstream press.

There are three distinct elements of cyberwar that its proponents see as crucial. First, there is the illusion that war can be managed scientifically. This is a very old idea that goes back at least to the 1500s. Second, there is the realization that war is in large part a matter of information and its interpretation, especially as politics, and that it is in this realm that the metarules of war are set that determine who wins. This is not a new concept. It can be found in *The Art of War*, and it is the central insight of the whole range of guerrilla ("little") wars that includes ragged, colonial, irregular, and
counterinsurgency wars and low-intensity, cold wars as well as the vast area covered by operations other than war (OOTW). And, third, there is an emphasis on the importance of computers and how computers change traditional limits of war in terms of time and space.

This last area truly is new and significant, although the contemporary military theorists have not gone far beyond the wet dreams of electronic battlefield theorists of the Vietnam era except by theorizing that cyberspace itself is a battleground. That claim has yet to be proven in combat, although the theorists do note that it is the most computerized army that is the most susceptible to netwar—which means the U.S. military.

Pentagon doctrines and cyberwar games paint this grim picture in lurid colors. According to The Washington Post over 95 percent of U.S. military communications go over civilian networks. There are at least 150,000 military computers tied directly to the Internet. In 1994 a team of in-house hackers was unleashed by the Defense Information Systems Agency on military computers and penetrated 88 percent of the nearly 9,000 attacked. Only 4 percent of the penetrations were even noticed. There were 350 real hack attacks noted in 1994; therefore, an estimated 300,000 penetrations were made into U.S. military computers in 1994 if 4 percent were noted.

In cyberwar games staged in 1995 the enemy (Islamic fundamentalists hiring Euro-hackers) used software viruses, worms, and Trojan horses to crash trains, planes, and banks before bringing the United States to its knees by cutting off phone service. As one participant remarked, “This was not something that carpet bombing was going to solve.” Of course, carpet bombing hasn’t ever solved any geopolitical problem (Sherry, 1987; Clodfelter, 1994), but the myth that military technology solves political problems is a strong one. So the enthusiasm for cyberwar is unabated and the United States is rushing to develop the traditional doctrinal and bureaucratic infrastructure with which it responds to every expensive new revolution in military affairs (RMA).

Every branch of the armed services has its take on cyberwar, and so do the Canadians and at least three dozen other countries. While some old soldiers openly attack “half-baked ideas from people who have never been shot at,” the general trend is clear. As the U.S. military is forced to avoid the risk of any casualties, the promises of bloodless cyberwar are all the more seductive.

This leads inevitably to the more flexible definitions of war that make of every case of domestic dissent and criticism an act of low-intensity conflict or “netwar.”

Many nongovernmental political groups see the same terrain as netwar. The Critical Art Ensemble declares:

The rules of cultural and political resistance have dramatically changed.
The revolution in technology brought about by the rapid development of
The computer and video has created a new geography of power relations in the first world that could only be imagined as little as twenty years ago: people are reduced to data, surveillance occurs on a global scale, minds are melded to screenal reality, and an authoritarian power emerges that thrives on absence. The new geography is a virtual geography, and the core of political and cultural resistance must assert itself in this electronic space.

The Critical Art Ensemble doesn't respond in a military mode; however, it seeks to change the way people relate to the infosphere through, for lack of a better term, art. Other net activists are not so subtle. Jason Wehling buys into the infowar model with enthusiasm, proclaiming "the attack has already begun." He advocates various disruptive and confrontational tactics to go along with the continued spread of information and building of international solidarity that has proven so effective for the Zapatistas (Wehling, 1995).

It is Hakim Bey (1995) who has done the best job of integrating the insights of cyberwar with the realities of genocide. For all its mumbo jumbo about pure information, the Terminal State still needs a military and police force that is unprecedented in size and power. War is, and always must be, not just for the hearts and minds of people but for their bodies as well. Demonizing, or deifying, information won't change this, nor does it help. As Bey notes, "information is a mess"; it is what we do with our living bodies in terms of that mess that determines politics. This is clear everywhere contemporary war continues.

The Experience of Contemporary War

The first dead U.S. soldier in Bosnia was killed by a land mine. President Bill Clinton was not entirely inaccurate when he said, "he died in the noblest of causes—the pursuit of peace." But it is hardly one that is guaranteed to succeed. Still, if high technology is the key to victory, the international forces certainly have a chance. Not only do they deploy the latest weapons and weapon platforms (tanks, helicopters, planes), but the informational infrastructure is state of the art. Tactical information systems linking radar and gun control can pick up every shell fired and trace its course while communicating to users with sophisticated multimedia interfaces. These systems, such as the French designed Safari from Alcatel, are designed to share many different types of information in human and electronic languages. Interoperability and evolution are two of the system's strength, as is its experience in Somalia, Rwanda, and Bosnia.

The theory behind the technology deployed in Bosnia, for example, is pure cyberwar. At a 1995 conference in the Czech Republic to introduce the
Czechs and visiting Poles to NATO's new infowar doctrines, there was total acceptance. A Dutch naval officer spoke in cyborg terms about the role of computer technology in creating a human–machine “fighting organism.” A representative from Thompson's stressed that it all depends on having higher levels of human–machine interfacing and declared “Winning means having the best information.” Czech and Polish General Staff officers elaborated on their own infowar infrastructure projects. In terms of peacemaking or peacekeeping, this approach may well make sense, as the very ground for peacemaking is communication.

Peace activists use a similar analytic and have put a great deal of energy into creating internet connections between the former Yugoslav component republics and the rest of the world. The ZaMir network they established has proven to be not only resilient but very effective in keeping communication open. But projects such as this sometimes seem a brief ray of sunshine in a storm of war.

As the millennium plunges into the second half of its last decade virulent wars sputter on despite massive international attempts to bring peace. In Ireland, in the Middle East, in the Balkans, and in Central America cease fires and peace treaties follow massacres and battles with relentless regularity. There is a self-perpetuating cycle of revenge in all these places, as in Israel, and in Northern Ireland, where renewed bombings led to increased British militarization in early 1996. Still the balance of power seems to be slowly tipping toward peace. It seems probable that some, if not all, of these wars will be resolved before the year 2000, although the Middle East has the potential of going completely the other way into apocalypse.

In all of them conflict will certainly continue, but perhaps below the physical violence threshold. In all of them the marginalization of violence is ongoing. In Bosnia it is constrained by the direct threat of massive NATO violence, backed up by the all-seeing eye of the milsat (military satellite) panopticon. In Ireland and the Middle East it is only the rejectionists (from the security apparatus as well as the religious fundamentalists) that continue to fight, although there are many of them. In Chiapas, Mexico all sides have been very careful to constrain the violence.

One could say that the United States is at netwar with Chiapas, Mexico. In a "war" that only included a few weeks of violence, the Zapatista rebels may have managed to secure at least one victory. The February 1996 peace pact expands the civil rights of Mexico's Indian people, and old massacres are to be investigated anew. And with direct violence minimized, the survival potential of the Zapatistas is high. Unfortunately, the underlying problems, (ecological crisis, inefficient autocracy, contradictions of capitalism, ferocity of the world economy) remain the same. So it seems for many contemporary crises. The problems fester.
Benjamin Barber argues that contemporary democratic politics are being torn apart by “Jihad” and “McWorld” (1995): on the one hand, the promise of consumption (McWorld) draws many into the world economy as consumers; on the other, some are frightened into a fundamentalist reaction (Jihad). Liberal nation-state-based democracy is eroded from both sides. Expectations, material and spiritual, seem to be spiraling out of control. Can everyone have enough to consume? Can all nations rule all the land they ever occupied all at once? Can we be pure? These questions are being answered in blood around the world, from Central Africa to Timor and all along the edges of the old Soviet Empire. It will get worse before it gets better, especially in the Third World, the traditional killing ground of postmodern war.

**High-Tech, Low-Intensity Deadly Conflict**

The Cold War was red hot in the Third World.

—John Brown Childs (1991, p. 82)

Since World War II most conflicts have been in the Third World. Childs (1991) points out that racism is a significant aspect of this and that

the Cold War was fought with the blood of Third World peoples both allies and opponents. From Angola and Mozambique, through Guatemala, El Salvador, and Nicaragua to Chile, the Philippines, Ethiopia, Somalia, Zaire, Lebanon, the Dominican Republic, to name but a few (p. 82)

Usually, the Great Powers had “setbacks” in these wars, although the system of United States–USSR hegemony survived, but it was other people who were defeated, sometimes fighting for themselves, sometimes just fighting as proxies. The proxy relationship is sophisticated. It should be. It is as old as empire. These days the Great Power may well supply weapons, advisers, training, strategy consultation, and so on. The value of the best high-tech weapons systems is high. The actual war is used to drain the other superpower and to test new weapon systems, and usually to justify domestic repression as well. This political–ideological management of world and domestic order was much more effective than direct military intervention. For once large numbers of Soviet or U.S. troops became involved real defeat was possible, and it came, throwing the system into its postmodern crisis.

The faith in high-tech war is still high. Even the superpower defeats in Vietnam and Afghanistan left the believers in technoscience unfazed: “It was not so much the irrelevance of high technology, but its misapplication—either in tactical, operational, strategic, or political terms—that contributed
to the failures in Indochina" (Zakheim, 1988, p. 236). Dov Zakheim has several other arguments. First, "it is an irrefutable fact" that non-Western countries are buying their own "arsenals of sophisticated weapons." This "proliferation of high-tech weaponry ... has ratcheted up the requirement" for the technological powers which might seek "to project their forces into these [Third World] areas." He concludes that "high technology is central to most potential battlefields of the Third World" (p. 236). But is that true?

Any serious consideration of U.S. low-intensity conflict (LIC) policy has to start with operational reality. The United States is almost always waging or supporting a number of bloody low-intensity conflicts. Although much of this activity is still secret there are cases about which a fair amount is known, such as Nicaraguan contra support, the Lebanon interventions, Afghan proinsurgency assistance, and the ongoing U.S.-financed fighting in El Salvador and Guatemala. Other recent LICs include the naval operations in the Gulf of Sidra and the Persian Gulf, and the invasions of Grenada and Panama. Recently, the trend has been for humanitarian missions, such as Somalia, Haiti, and Bosnia.

The covert budget for LIC was $2 billion in 1987. Add to that the over $2 billion in acknowledged funding and hundreds of millions to buy high-tech weapons and equipment, including Polaris nuclear ballistic submarines modified to carry commandos, laser-guided weapons, and an incredible array of complex electronic sensor and communications equipment, and its clear that over $5 billion was spent on low-intensity war by the U.S. Department of Defense and the intelligence agencies in 1987 (Weiner, 1991). The figure has certainly gone up in the nineties.

There are more then 20,000 covert operations soldiers under Pentagon control now, including Army Green Berets and Rangers, Navy SEALs, and various Marine and Air Force commandos. Together they make up the Special Operations Forces. Their motto is "Anything, Anytime, Anywhere, Anyhow."

The Air Force's related policy slogan to justify an air-space role in LIC: "Global Reach is Global Power." But this is more than a rhetorical move for budget priorities. Lt. Gen. Carl Stiner, on-site commander of the invasion of Panama, has even claimed, "I can't go to war without space systems" (Military Space Staff, 1990d, p. 3).

Indeed, there is evidence to support the cheerleading claim of the Military Space newsletter that "Space systems played an important role in [the] Panama Invasion." Among other systems the Operation Just Cause U.S. invasion forces used the Defense Meteorological Satellites, the Defense Satellite Communication System, ultrahigh-frequency (UHF) and superhigh-frequency (SHF) satellites, the Global Positioning System (for helicopters and ground troops), and even civilian Landsat remote sensing satellites (Military Space Staff, 1990e, p. 8).
Space systems are just part of the technophilia of LIC. Complex radios, code computers, speedboats, stealth air vehicles, explosives and sensors, remote controlled drones and missiles, are all part of LIC practice. During the contra war against Nicaragua, the United States supplied them with a dozen KL-43 encryption machines, seismic, acoustic, magnetic, and infrared remote sensors, lists of satellite-generated targets, remote piloted vehicle (RPV) flyovers, and other hardware (M. Miller, 1988, p. 21). Since 1980, most U.S. commando teams have maintained satellite uplinks by using UHF Manpack terminals that weigh around 18 pounds. New versions with much more power are due out in 1998.

The elite units are a particularly enthusiastic military audience for new technologies. One industry satcom (satellite communications) expert says, “They really love gadgets.” Or, as the trade journal Military Space puts it, “In addition to doctrinal flexibility, elite units also are willing to try new system concepts” (1990f, p. 1).

In many ways, though, it is the new system concepts that are trying them, and this is just one of the elemental ironies of postmodern war, which are legion—the most poignant being the persistence of war after the U.S. Cold War victory.

The Policies of Pax Americana

For those that predicted that peace would break out around the world after the collapse of the USSR consider the comments Alvin Bernstein of the National Defense University made in 1990 to a meeting of historians in Maryland. Speaking as a replacement for a high defense department official, Bernstein made a strong argument for high-tech weapons to “deter and contain regional conflicts.” He especially liked “stand-off ordnance” that wouldn’t involve risking U.S. soldiers. Korea, India, the Persian Gulf, and unspecified “terrorist states” were mentioned as possible loci for these regional conflicts. But Bernstein still couldn’t let go of his desire for the United States to keep large ground forces. In a revealing comment, he argued that land armies should be retained in this post-Cold War period of threatening budget cuts to protect the United States against a “currently anonymous and certainly ineffable enemy.” Now, “ineffable” has some interesting meanings, most notably: “too overwhelming to be expressed or described” and “too awesome or sacred to be spoken.” Within weeks of Bernstein’s comments, this sacred role was being fulfilled by Iraq and the Pentagon budget was safe.

But it is not that simple. It seems Lebow and Stein (1994) are right when they argue that We All Lost the Cold War. War won. A state of war is still deemed necessary. For the United States, the Soviet menace used to supply the enemy and the Cold War was ongoing. Now the enemy is more diffuse,
although just as ubiquitous. Domestic communists have been replaced by drug pushers and users, international communist agents by international terrorists, and the Cold War by perpetual low-intensity wars, with an occasional midintensity conflict as well. The persistence of war is clear.

From the realization that the domestic culture is the main problem in winning LICs to militarily attacking part of that culture may seem like a small step, but for the U.S. military it was actually a giant leap—a leap it was not prepared to make until the collapse of the Soviet threat. For years President Ronald Reagan tried, with very little success, to get the military to commit itself to the drug wars. It took Mikhail Gorbachev to make it happen.

There was a very gradual increase in the military's involvement. It started with electronic and other intelligence gathering. Then the Navy and the Air Force started helping with interceptions of smugglers. At first only the border areas were militarized, ostensibly to prevent the infiltration of terrorists and the importation of drugs. As early as 1986 the Marines were running clandestine electronic surveillance on the Mexican border. This militarization of the border actually serves many functions. Generally it increases the crisis mentality of the wars on drugs and terrorism. It also puts pressure on Mexico and on illegal immigrants, useful for various economic reasons such as keeping illegal aliens from organizing and demanding fair treatment.

The policy of militarizing the border psychologically reached its most absurd rhetorical epiphany when Reagan warned that Nicaraguan terrorists were only a two-hour drive from Harlingen, Texas. While less amusing in its rhetoric, the policy of the Bush administration was similar in most respects (Moore and Sciacchiatano, 1986, pp. 8-9), and President Clinton has continued in this vein, even appointing a general as drug czar.

Infantry armed with automatic weapons have lately been sent sweeping through small towns and rural neighborhoods in Northern California, and other troops have been deployed at rock concerts to help the police search the crowd for drug users. The U.S. Air Force Academy has even sponsored a whole conference on how satellites and other space assets can be used in the war on drugs. By the spring of 1990, the military was asking for over $1.2 billion for the war and the Navy was planning to deploy carrier battle groups and even Trident nuclear missile submarines on antidrug missions. Vice Adm. Roger Bacon went so far as to claim that Tridents (which only carry strategic nuclear missiles) are "essential as . . . a defense against terrorism, drug trading and other global conflicts" (Morrison, 1990, p. 3).

A turning point was reached in the summer of 1990. It was then that the military involvement in the drug wars escalated, almost certainly as a reflection of Pentagon fears of a peace dividend. Regular troops were deployed for the first time under the direct approval of Secretary of Defense Richard Cheney. Two hundred soldiers of the 7th Infantry Light Division
were sent to the Emerald Triangle in Northern California to search public lands for marijuana plants. In the process they confronted more than a few Californians along forest trails or in their own backyards. Armed with M-16 automatic weapons and supported by transports and helicopters, they whipped up so much anger that within a few weeks the *San Francisco Harold Examiner*, the flagship paper of the Hearst chain, called for the legalization of drugs and an end to the drug "civil" war.

That same summer more than $45 million was spent by the Department of Defense (DoD) to facilitate over 3,500 National Guardsmen and 65 Huey helicopters joining in the drug war. The National Guard was active in the drug war in all 50 states for the first time. In Kentucky, citizens were encouraged to report on "any suspicious activity," including any "house in the country where men are constantly going in and out" (Isokoff, 1990a). Forty Massachusetts National Guardsmen, supported by a helicopter, and approved directly by the Pentagon, searched the patrons at a Grateful Dead concert in Foxboro and fingered over a hundred people for the police. Forty arrests were made (Isokoff, 1990b).

The military also began to use RPVs in the drug war, specifically on the border. The 1st RPV Company of the U.S. Marines spent three weeks on the Texas–Mexico border and helped capture 372 illegal aliens and seize 1,000 pounds of marijuana. This was the first time the FAA had allowed "free" (without escort) RPV operations in civilian air space. The U.S. Army was testing RPVs off Florida at the same time, and the Drug Enforcement Agency (DEA) was investigating the value of various UAVs (unmanned air vehicles) in "following suspects, border patrols, and crop hunting." The Immigration and Naturalization Service (INS) and FBI are developing autonomous mechanical border guards and other types of narcotics officers as well (Lovece, 1991, p. 47).

A drug war institutional infrastructure is growing throughout the military, as it has already spread in law enforcement. It becomes one more institutional argument for continued expansion of the drug wars. Training centers, special units, and ground facilities are the sites of great bureaucratic, military, and rhetorical power. For example, the National Guard runs a training school, the National Counter-narcotics Institute. Due regard is given to the current intense bureaucratization of war. "The program features a three-day classroom 'war games' exercise in which potential drug war scenarios were resolved through coordinating different government agencies." In 1990, the DoD committed to a two-year $2 billion antidrug battle to expand Caribbean surveillance and to build a radar network from California to Florida (Myles, 1991, p. 15).

Drug wars interpenetrate with other types of war, the best example being the invasion of Panama. Here was a military "arrest" at the cost of at least 300 civilians dead and several dozen U.S. soldiers as well, most killed by
friendly fire. It had to be the largest set-piece battle in a drug war since the British fought China to keep the market for opium open. In reality it seems the invasion of Panama was aimed more at charming the domestic media, attacking the most leftist neighborhoods in Panama City, and disciplining a hireling (Manuel Noriega) who had forgotten his place. Drug wars also play a very important part in justifying other conflicts.

For many countries, the bulk of U.S. aid is military, and much of that is set aside for drug wars. In 1991, such dedicated funds that were publicly known about included those to Peru, $36 million, Colombia, $76.2 million, and Bolivia, $53.2 million. Such aid may well encourage the further militarization of these countries and undermine what little democracy they have. For example, U.S. Special Forces units planned and led the assassination of at least one Colombian drug lord (Royce and Eisner, 1990). In Peru the militarization of drug wars has driven drug lords into alliances with rebels. The military uses helicopters and Green Beret-trained Peruvian antidrug police to stage massive raids. Herbicides are sprayed on suspect drug fields. There are U.S. troops in both Peru and Bolivia (Renique, 1990). In Guatemala, U.S. policy is to blame Nicaragua’s Sandinistas and the FMLN (Frente Militar de Liberación Nacional) in El Salvador, as well as local rebels, for drugs and to cover up the deep involvement of Guatemala’s secret police and military in such traffic. 24

The drug wars are a series of related conflicts, including the efforts of various states to repress the production, sale, and use of certain drugs. These same governments support other drugs, sometimes the most harmful (alcohol, nicotine), and often the secret agencies of these governments even facilitate the production and sale of drugs their own governments have labeled illegal. There is also the struggle of drug suppliers to seize some level of political power, as in Colombia, and there are the struggles between suppliers for vertical and horizontal monopolies. Not less than 400,000 U.S. residents are arrested for using or selling small amounts of drugs. Thousands more are killed, most in the bloody clashes between “entrepreneurs” in the unorganized capitalism of the illegal drug economy. The drug wars are particularly personal. Almost any American may suddenly become a civilian casualty, shot down in a crossfire, robbed by an addict feeding an expensive habit, or captured by the authorities for using a proscribed intoxicant, as opposed to one of the many legal ones. Is it surprising that on the right as well as the left many people feel that their government is at war with them?

Still, no matter how ubiquitous, the drug wars are not quite militarized enough for the real military, except perhaps for the arrest of Noriega. They are being incorporated into the system of war in a very new way, but only as part of the struggle against a larger enemy—terrorism.

The terrorist threat is also particularly personal: businesses, tourists, airline passengers, and government workers are all potential targets. Thus
there has been substantial growth in the private security field, linked again with the drug wars. In 1989, the market for "security services and related paraphernalia" was somewhere between $20 billion and $50 billion annually. One estimate was that there were more than 5,000 companies engaged in the security business in the United States by 1990 (Livingstone, 1990, pp. 36-37). These companies, like the military that trained many of their founders and employees, have a fascination with high technology. But, along with using the latest computers, these domestic security experts fear them as well. Computerization doesn't make us safer, it seems; rather, it makes our whole society more vulnerable. One expert claims that

Computers are vital to everything from our national defense to our transportation networks, food distribution systems, electrical grids, and nearly every other facet of our infrastructure, and one individual who knows how the system works can inflict tremendous damage on it, and potentially even dismantle our entire economy. (quoted in Livingstone, 1990, p. 39)

So, one person could "dismantle our entire economy"! Then clearly more computer-equipped security companies are needed. But this threat is so extreme, normal rules of war will have to be abandoned:

"In combat there is no such thing as a fair fight," observes one counterterrorism specialist. Anything short of draconian methods that will give the West an edge in its struggle against terrorism, therefore, "should be encouraged." In this connection, the war against terrorism has gone high tech and, in the final analysis, it may well be that technological superiority will be the most important factor in the West's ability to withstand the terrorist challenge. (Livingstone, 1990, pp. 139-140)

All of which makes for a nice circle.

Despite the explosion of private security, the real players in the terrorism game are the secret state agencies. While it is hard to tell information from disinformation, it seems that the U.S. agencies lead the world in computerization, especially the National Security Agency (NSA) and the Central Intelligence Agency (CIA). For them, drug wars are interesting and terrorism is significant, but it is the struggle for political power in Third World countries that is the focus of most LICs. That is the real game, and the campaigns against drugs and terrorism, as well as their covert operations that spread drugs and terrorism, are all part of the contest for political power in the United States and in other states.

This struggle has become a rationale for even the most high-tech weapons—those in space. Lockheed, for example, made up a video game display for weapon's fairs to show how easy, and how much fun, antimissile
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systems could be. Instead of attacking Russians, the enemy was a Libyan intercontinental ballistic missile (ICBM) (Military Space Staff, 1989c, p. 1). As we shall see in Chapter 3 when we consider SDI, Lowell Woods, the Lawrence Livermore bureaucrat and weapons promoter/scientist, also raised the "Third World threat" in seeking support for his brainchildren, the misnamed "brilliant pebbles" (tiny smart kill vehicles in space). They "would be," he claimed, "very, very, capable against a light launch for the Third World Country" (Military Space Staff, 1990a, p. 8). Drug wars and Third World conflicts have become a major justification for all sorts of space and other computerized weaponry, as can be seen in the report of the blue-ribbon Commission on Integrated Long-term Strategy.

But the commitment of the DoD to high technology in general, and computerization specifically, goes much deeper. Consider the Pentagon's own Analytical Review of Low-Intensity Conflict (U.S. Army, 1986), prepared by the Joint Low-Intensity Conflict Project, U.S. Army Training and Doctrine Command (JLIC). From the Analytical Review it is immediately clear that high technology, in general, and computers (even as metaphors), in particular, are central to all types of conflict. In official discussions computer terms ("data," "program," "access," "information") have become common. Equally prevalent is a focus on technology (logistics, weapons) and on the human as information processor (command, control, communications, psychological operations, public relations, training). One of the very first things the JLIC did was computerize itself. In terms of technology the report is also quite explicit that technology was a crucial force multiplier (p. 11-8).

Besides technology, "data" constitutes a crucial resource and "information consciousness" is a central virtue (p. 7-11). "Intelligence is the most powerful tool," the JLIC claims. They go on to define it as "a unique commodity for which there is a constant requirement" (p. 12-1). Intelligence is "the means to access and influence key government policy makers" and other elites, especially the military. And it is cheap! (p. 12-1).

Information is ultimately linked with the other three elements of the old C3I formula: command, control, communications, and intelligence. Despite the incredible communications resources of the United States, the report alleges that one of the central structural problems with command and control is that there are not enough existing "communications resources" (p. 8-2).

Sweeping claims are made for the importance of logistics. It is even argued that better logistics could have won the Vietnam War (p. 13-1). A remarkable claim in light of the thousands of billions of dollars of equipment used and squandered in that conflict. The study advocates technology that is "appropriate to the environment" and "user-friendly." A special task force, the Minor and Unconventional Warfare Project of the Army's Material
Command, was set up to identify the equipment requirements of LIC (p. 13-3). A number of pages are taken up with explaining how vital and wonderful the Army Logistics Center’s logistics computer model (“Foraging”) is for crucial “logistics intelligence” and coordination. Its deeper integration into training, contingency planning, and all other logistical functions is strongly advocated (p. 13-4).

Finally, there is the psychological element. “Low-intensity conflict is basically a struggle for people’s minds” (p. 14-1). “And in such a battle, psychological operations are more important than fire power. . . . Insurgencies, therefore, are primarily political and psychological struggles; military considerations are secondary” (p. 14-2). Psychological operations (PSYOPs) “have to be centralized and combined with all information efforts” (p. 14-5). “And the scientific exploration of PSYOP must be pursued” (p. 14-7). PSYOPs are just part of information management: “Public information, public diplomacy, psychological operations, and psychological warfare can be viewed as individual parts of a continuum of information” (p. 15-2). The report goes so far as to complain that “military public affairs personnel are extremely reluctant to associate with the PSYOP community,” which is necessary in order to “bridge the gap between information and persuasion.” To be successful in LIC “that bridge must be crossed” (p. 15-3). In other words controlling information is controlling people. This is especially important in respect to the military’s media policy.

Another example of the central role high technology plays in low-intensity policy is this analysis of the importance of high-tech matériel for improving the chances of terrorists:

The availability of technologically advanced weapons and communications equipment has increased the lethality, mobility, and security of terrorist and insurgent groups. Rapidly changing technology has benefited insurgents and terrorists. (p. 2-3)

Pro forma warnings of the dangers of relying too much on complex technology are included (p. 14-17), but this is not the working policy at all. Just as in Vietnam, while there is an official theoretical realization that technology can’t win these types of war, the actual military practice ends up one of high technology war anyway.

In cases where there is no need for LIC theory, as with the Gulf War, the military’s technophiles can go whole hog. If the enemy is incompetent, this can be incredibly effective.