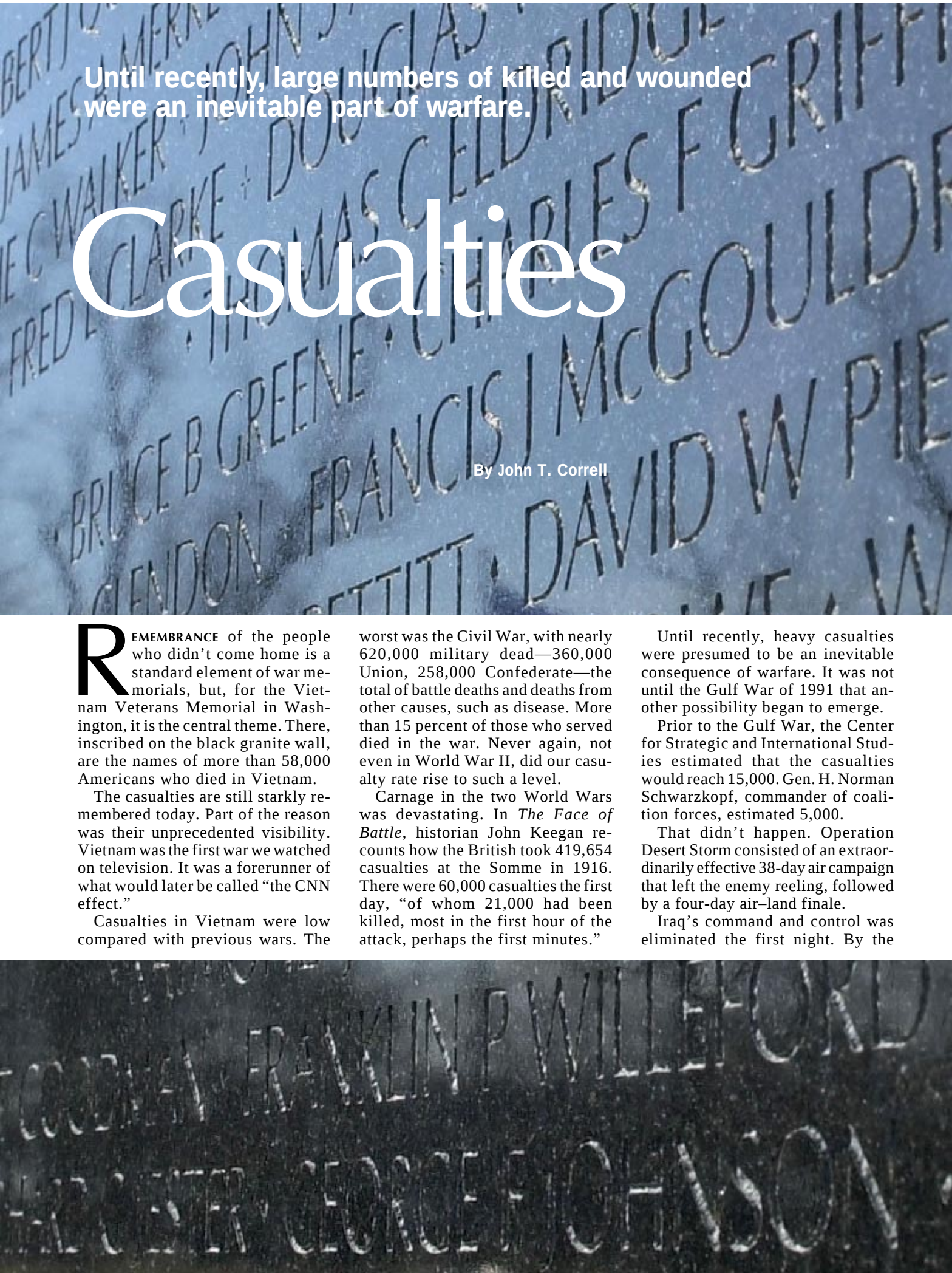




Until recently, large numbers of killed and wounded were an inevitable part of warfare.

Casualties

By John T. Correll

REMEMBRANCE of the people who didn't come home is a standard element of war memorials, but, for the Vietnam Veterans Memorial in Washington, it is the central theme. There, inscribed on the black granite wall, are the names of more than 58,000 Americans who died in Vietnam.

The casualties are still starkly remembered today. Part of the reason was their unprecedented visibility. Vietnam was the first war we watched on television. It was a forerunner of what would later be called "the CNN effect."

Casualties in Vietnam were low compared with previous wars. The

worst was the Civil War, with nearly 620,000 military dead—360,000 Union, 258,000 Confederate—the total of battle deaths and deaths from other causes, such as disease. More than 15 percent of those who served died in the war. Never again, not even in World War II, did our casualty rate rise to such a level.

Carnage in the two World Wars was devastating. In *The Face of Battle*, historian John Keegan recounts how the British took 419,654 casualties at the Somme in 1916. There were 60,000 casualties the first day, "of whom 21,000 had been killed, most in the first hour of the attack, perhaps the first minutes."

Until recently, heavy casualties were presumed to be an inevitable consequence of warfare. It was not until the Gulf War of 1991 that another possibility began to emerge.

Prior to the Gulf War, the Center for Strategic and International Studies estimated that the casualties would reach 15,000. Gen. H. Norman Schwarzkopf, commander of coalition forces, estimated 5,000.

That didn't happen. Operation Desert Storm consisted of an extraordinarily effective 38-day air campaign that left the enemy reeling, followed by a four-day air-land finale.

Iraq's command and control was eliminated the first night. By the

time the ground offensive began, about half of Iraq's armor had been destroyed, and between 50 and 75 percent of the troops in the first two echelons were killed or captured, or had deserted.

Total casualties for the coalition were 247 battle deaths (148 for the US, 99 for the allies) and 901 wounded (467 for the US, 434 for the allies).

Was the Gulf War a turning point in the history of warfare, or was it a fluke? Gen. John Michael Loh, commander of Tactical Air Command, said in 1992 that the American public had a new standard of expectations, that the US armed forces would "win quickly, decisively, with overwhelming advantage, and with few casualties."

A New Way of War

In 1996, Air Force Chief of Staff Gen. Ronald R. Fogleman said the nation was on the verge of "a new American way of war."

"America has not only the opportunity but the obligation to transition from a concept of annihilation and attrition warfare that places thousands of young Americans at risk in brute, force-on-force conflicts to a concept that leverages our sophisticated military capabilities to achieve US objectives by applying what I like to refer to as an 'asymmetric force' strategy," he said.

Instead of engaging the enemy in what Fogleman called "a bloody slugfest on the ground," US forces could put greater reliance on their advantages in information superiority and precision strike.

The improvement in airpower was especially significant.

In World War II, the circular error probable—the standard Air Force measure of bombing effectiveness—for a B-17 dropping gravity bombs was 3,300 feet. It took a lot of bombs to be sure of hitting the target.

In the Vietnam War, the CEP was 400 feet. By the Gulf War, it was down to 10 feet. A single stealthy aircraft could penetrate the defenses and achieve, with two laser guided bombs, what would have taken 1,000 sorties in World War II or 30 sorties in Vietnam.

That made it possible to focus the attack, striking with great accuracy and economy. Fewer of our forces would be exposed to enemy fire, and

the increased precision meant less collateral damage.

The air war over Serbia in 1999, operations in Afghanistan since 2001, and the opening rounds of Gulf War II supplied further evidence of a new way of war. The operations were highly successful, and the casualties were low.

US forces had zero combat losses in Kosovo and Serbia. After a year and a half, the total dead in Operation Enduring Freedom in Afghanistan, Middle East, the Philippines, and elsewhere was 76.

Before Operation Iraqi Freedom began in March 2003, there were predictions of as many as 5,000 US troops killed and up to 30,000 total US casualties. (At the other end of the forecasting spectrum was the expectation that it would be a "cakewalk.")

Apprehension grew as the operation got under way. On March 24, after just five days of war, an editorial in *USA Today* proclaimed that "Mounting US Casualties Dispel Modern War Myths." It said that the losses "can't help but test the public's resolve," but might: "knock down a dangerous conceit of the antiseptic war." At that point in the fighting, known US losses, both those killed in action and in accidents, were 20.

When Baghdad fell on April 9—the 21st day of the conflict—the total of US dead was just over 100.

In April, Gen. Richard B. Myers, Chairman of the Joint Chiefs of Staff, used the same phrase as Fogleman—"a new American way of war"—to describe Operation Iraqi Freedom. Myers said that precision and focus had allowed US, British, and Australian forces to "strike directly at the heart of the regime" in Iraq while minimizing collateral damage and harm to the Iraqi people.

The Napoleonic Model

The evolution of casualty rates in warfare is a function of changes in both military technology and in strategic concepts of operation.

After 1800, war had generally followed the Napoleonic model. The objective was destruction of the enemy's army in the field and occupation of his country. "I see only one thing, namely the enemy's main body. I try to crush it, confident that secondary matters will then settle themselves," Napoleon said.

Carl von Clausewitz, Prussian officer and famed military theorist, based his views largely on his analysis of the Napoleonic Wars. "Of all the possible aims in war, the destruction of the enemy's armed forces always appears as the highest," Clausewitz said in *On War* (1832), adding that "destruction of the enemy forces is the overriding principle of war."

The German military historian Hans Delbrück described this approach as the "strategy of annihilation." It assumed and accepted high casualties on both sides. Historian Russell F. Weigley says, "The strategy of annihilation became characteristically the American way in war."

That was Gen. Ulysses S. Grant's strategy in the final phase of the Civil War. Departing from the more cautious approaches of his predecessors, Grant threw the mass of his Army of the Potomac, again and again, against Robert E. Lee's retreating Army of Northern Virginia.

Grant's campaign was marked by the large numbers of killed and wounded. To get the job done, he was willing to accept higher casualties than he inflicted.

In the first month, according to Weigley, the Army of the Potomac "suffered 55,000 casualties, not far from the total strength with which the rival Army of Northern Virginia began the month." Lee's army took 32,000 casualties that month, but Lee had more difficulty than Grant did in replenishing his ranks.

Grant eventually won but afterward was unable to shed his reputation as a butcher.

The World Wars and Vietnam

The strategy of annihilation prevailed through the World Wars. All of the nations engaged in those wars accepted casualties as a grim necessity, but Hitler was one of the few who expended the lives of his troops recklessly.

Hitler ordered the beleaguered German Army not to surrender at Stalingrad in 1943, declaring that "the duty of the men at Stalingrad is to be dead." Sixty thousand Germans were killed at Stalingrad. Another 110,000 were captured by the Soviets and few of them ever came home.

The military death toll for World War II was a staggering 19.4 million

killed in battle. Of those, 292,000 were Americans. The total of US military deaths in World War II, counting nonbattle deaths, was 405,000. Total US dead in the Korean War were 37,000 and in the Vietnam War, 58,000.

In Vietnam, the number of battle deaths was reduced by effective search and rescue operations which quickly pulled the seriously wounded out of firefights in the jungle and flew them to medical treatment by helicopter. American losses in Vietnam were a fraction of those the Viet Minh and the North Vietnamese were willing to accept in order to defeat first the French and then

Casualties and Collateral Damage

“Casualties” include not only the killed and wounded but also losses from disease, desertion, accidents, and troops taken prisoner or missing in action. Attention centers on the numbers killed in action, but according to the *Oxford Companion to Military History*, the Allied campaign in Italy in World War II was the first in which combat casualties outnumbered those caused by disease.

“Collateral damage” has two components: nonmilitary structural damage and human casualties that occur in the course of striking valid, approved military targets. Example: Damage to a civilian structure located next to a military structure.

“Unintended damage” is the result of a targeting mistake, a weapon system malfunction, unforeseen secondary effects, or other error. Examples: fin failure on a guided munition, hidden bunker beneath a structure, intelligence error.

From the Revolution to the Gulf

US Military Casualties

	Battle Deaths	Other Deaths	Wounds Not Mortal
Revolutionary War	4,435	—	6,188
War of 1812	2,260	—	4,505
Mexican War	1,733	11,550	4,152
Civil War (Union forces only)	140,414	224,097	281,881
Spanish–American War	385	2,061	1,662
World War I	53,402	63,114	204,002
World War II	291,557	113,842	671,846
Korean War	33,652	3,262	103,284
Vietnam War	47,378	10,799	153,303
Desert Shield/Storm	148	145	467

Source: Department of Defense

the United States.

From 1959 to 1975, “more than four million Vietnamese soldiers and civilians on both sides—roughly 10 percent of the entire population—were to be killed and wounded,” said Stanley Karnow in his comprehensive history of the war.

“Every minute, hundreds of thousands of people die on this Earth,” said Gen. Vo Nguyen Giap, North Vietnam’s military leader. “The life or death of a hundred, a thousand, tens of thousands of human beings, even our compatriots, means little.”

The US was far less tolerant of casualties, more so as the war bogged down and the prospect of victory diminished. Unflinching television

coverage had a strong influence on public opinion.

But rising and visible casualties were only part of what soured the nation on Vietnam. The war was tightly controlled by politicians in Washington. The US commitment was halfhearted and vacillating. Military force was dribbled out in limited actions and gradual escalation.

Field forces were required to report “body counts” of the enemy dead. These were notoriously inaccurate and fooled nobody. Body counts gained such notoriety that to this day, US forces do not attempt to count or estimate enemy casualties.

Two products of the Vietnam experience—the “Vietnam syndrome,”

which described the supposed avoidance of US military action abroad, and the “Weinberger Doctrine”—would figure in the casualty debates 30 years later.

In 1984, Secretary of Defense Caspar Weinberger announced a series of tests that should be met before US forces were committed to combat. Was a vital national interest at stake? Had other options been exhausted? Would we commit sufficient force to win, and did we have the determination to stay the course?

These guidelines—sometimes called the Weinberger–Powell Doctrine because Gen. Colin Powell, Chairman of the Joint Chiefs of Staff during the Gulf War, strongly agreed—were a reminder to avoid the mistakes of Vietnam.

The Weinberger Doctrine did not suggest avoiding combat to prevent casualties, although that accusation would be made years later.

Effects-Based Operations

US capabilities demonstrated in Gulf War I—mainly information superiority, stealth, and precision strike—were the leading indicators of what was called the “Revolution in Military Affairs.”

The capabilities got better as the decade went along.

American forces could see into enemy territory and track targets moving on the ground and in the air with deep-looking radar on E-3 AWACS and E-8 Joint STARS aircraft. Electronic emissions were monitored. Circling drones fed live video transmissions to gunships.

Over Kosovo, B-2 bombers struck nightly from their home bases in the

United States. Each aircraft attacked 16 different targets on a single sortie.

Under Napoleonic strategy, the objective had been destruction of the enemy's army. Now a new approach was possible. It was called Effects-Based Operations.

The objective was not to destroy the enemy but to gain a strategic result. Destruction of the enemy was never more than a means to a strategic end, not an end in itself.

In some cases, the strategic objective might still be to destroy the enemy's army and occupy his capital, but more often, the desired result is something else. Keep enemy armor from massing. Halt an invasion. Take away the enemy's ability to command and control his forces. Inhibit his aggression.

"With precision targeting and longer-range systems, commanders can achieve the necessary destruction or suppression of enemy forces with fewer systems, thereby reducing the need for time-consuming and risky massing of people and equipment," the Joint Chiefs of Staff said in "Joint Vision 2010" in 1996.

More effectiveness. More flexibility. Fewer casualties.

However, it was controversial for a number of reasons, one of them being that it put more emphasis on airpower and moved away from the clash of forces on the ground.

Friendly Fire

"Friendly fire" casualties are those inflicted by forces on one's own side. In Desert Storm, 35 Americans were killed and 72 were wounded by friendly fire.

The 35 dead accounted for about a fourth of the US military members who died in action in that conflict. That was a higher percentage than the historical norm, around two percent, but that is partly because losses to enemy fire were historically low.

Friendly fire is often thought of as something that aircraft do to ground troops, but many of these casualties are the result of fire from tanks, artillery, and other weapons.

In World War II, Korea, and Vietnam, 58 percent of the friendly fire casualties were ground to ground, 37 percent were air to ground, and five percent were ground to air. In Desert Storm, 61 percent were ground to ground, 36 percent were air to ground,

and three percent were ground to air.

"The problem is our weapons can kill at a greater range than we can identify a target as friend or foe," Army Maj. Bill McKean told American Forces Press Service in 1999. "Yet if you wait until you're close enough to be sure you are firing at an enemy, you've lost your advantage."

Civilian Casualties

Wars have always caused civilian casualties, both directly and indirectly. In World War I, for example, the 13 million civilian deaths outnumbered the 8.5 million military deaths. Displaced persons were hard hit by an influenza epidemic that swept the world and took millions of lives. Other civilian deaths were caused by starvation, exposure, and disease.

One of the most famous instances of civilian casualties may have led, in the long run, to fewer civilian casualties than if the strike had not taken place.

About 80,000 Japanese were killed by the atomic bomb dropped on Hiroshima Aug. 6, 1945. Japan adamantly refused to surrender. If the atomic bomb had not been used, an invasion of the Japanese home islands was the only alternative for bringing the war to an end. The United States had just taken 48,000 casualties in the battle for Okinawa, where it was opposed by a Japanese force a fraction the size of the one waiting in the home islands.

The bomb ended the war and almost certainly saved tens of thousands of American lives. It is highly probable—although fiercely debated—that more Japanese would have died in an invasion than were killed by the bomb.

Sometimes civilian deaths are deliberate.

The Nazis killed six million Jews in the Holocaust. Millions of Chinese died in the brutal Japanese conquest of the 1930s and 1940s. Between 1975 and 1979, the Khmer Rouge killed two million people in Cambodia. About 800,000 civilians died in the systematic slaughter of men, women, and children in the Rwanda Civil War in 1994.

Civilian casualties continue to occur in wars. In fact, the rate may be rising in conflicts in the developing world.

"The percentage of civilians killed and wounded as a result of hostili-

World War I Military Dead

Battle and Nonbattle Deaths

Germany	1,773,700
Russia	1,700,000
France	1,357,800
Austria-Hungary	1,200,000
British Empire	908,371
Italy	650,000
Romania	335,706
Turkey	325,000
United States	116,516
Bulgaria	87,500
Serbia	45,000
Others: Belgium, Greece, Japan, Montenegro, Portugal	29,238
Total	8,528,831

The United States did not enter World War I at the beginning, and its losses were lower than those of other major combatants.

Source: *Encyclopedia Britannica*

ties has risen from five percent of all casualties at the turn of the last century to 65 percent during World War II to 90 percent in more recent conflicts," a relief group, Save the Children, said in a report in 2002. "In the last decade alone, more than two million children haven been killed during wars."

The report did not give a breakout, but among the places mentioned were Rwanda, Chechnya, Afghanistan, Angola, Congo, Liberia, Mozambique, Sierra Leone, and Somalia.

Limiting Civilian Casualties

The trend has been exactly opposite in US military actions of recent years. The policy is to avoid civilian casualties and collateral damage, and the accuracy of the weapons is good enough to make it possible.

Some targeting mistakes are bound to occur, and the precision guided munitions are not perfect. It is not possible to prevent all unintended casualties, but every target is screened for potential civilian casualties. Probable blast and fragmentation patterns are considered. The size of the weapon, the direction and angle of the attack, and even the time of day of the strike are chosen to minimize civilian casualties.

In some cases, facilities serve both military and civilian functions, so decision-makers must weigh the importance of the target against the predicted noncombatant casualties. In Operation Iraqi Freedom, some targets of military value were not

struck because of the danger to civilians.

Despite this, it is the United States that attracts the most vehement criticism for civilian casualties. Furthermore, the critics nearly always exaggerate the numbers.

That was the case with the Gulf War of 1991. "The radical group Greenpeace claimed as many as 15,000 Iraqi civilians died," John Leo wrote in *US News & World Report*. "Saddam Hussein's government said 20,000 to 50,000, and the American Friends Service Committee/Red Crescent went way overboard and claimed 300,000 civilians died. Accepted estimates are far lower. Human Rights Watch estimated 2,500 to 3,000. A long analysis in *Foreign Policy* magazine put the number of Iraqi civilian dead at 1,000."

Civilian casualties were low in Kosovo and Serbia, and everybody knew it. Investigators for Human Rights Watch put the total at 500.

Operation Enduring Freedom in Afghanistan went to new levels in trying to avoid civilian casualties. Central Command was accused in news media leaks of being too cautious and letting some al Qaeda leaders get away.

At the same time, Marc W. Herold, associate professor of economics and women's studies at the University of New Hampshire, was making his own count of civilians killed by bombing in Afghanistan.

Herold spent 12 to 14 hours a day on the Internet, reading the interna-

tional press and gathering "data." He calculated that, as of January 2002, US bombs had killed 4,050 noncombatants. To arrive at that figure, he relied on such sources as the Afghan Islamic Press Agency, the al Jazeera news network, and newspapers in Pakistan.

A different estimate for the same period, by the Project on Defense Alternatives, was that between 1,000 and 1,300 civilians had been killed. The actual number of noncombatant casualties is not known.

Who's a Combatant?

Afghanistan raised again an old but critical question: Who is a combatant?

Yaser Esam Hamdi, born in Louisiana, raised in Saudi Arabia, was captured on a battlefield in Afghanistan carrying an AK-47. He admitted that he had trained and deployed with the Taliban. His lawyers have been trying to free him from detention on the grounds that he is not an enemy combatant. His case has been working its way through the federal appeals courts for months.

Saddam Hussein and his Iraqi cohorts took the question to new levels.

Before the war began, Iraq said that it had trained a million civilians in the basics of armed combat and had given many of them firearms.

Advancing US forces encountered Iraqi troops in civilian clothing, operating out of homes, religious shrines, schools, and hospitals. Iraq sent civilians, including women, barreling into checkpoints in suicide attacks. Iraqi troops fired on American forces while carrying white flags and pretending to surrender.

In the first Gulf War, the Iraqis seized 2,000 foreigners in Kuwait, oil workers, bankers, and others, and held them as human shields at military bases and industrial plants.

This time, the human shields were volunteers, coming from the United States, Britain, and elsewhere with the idealistic notion of protecting hospitals and schools—which were in no danger, of course—but the Iraqis wanted them at locations of military significance instead. Volunteer shields assigned to the South Baghdad Electricity Plant, for example, were chagrined to discover an army base adjacent to it.

Central Command said it could

"The CNN Effect"

For the first two years of World War II, censors at the Office of War Information banned the publication of photos of dead American soldiers or sailors.

The policy was eased in 1943 to help prepare the public for the losses that lay ahead. The first US casualties seen at home were pictures of the dead on a beach in New Guinea in *Life Magazine* September 1943. "Graphic" images were still forbidden.

By the Vietnam era, television had replaced newsreels. The coverage was not yet live from the battlefield, but videotapes were flown back to the United States and telecast upon arrival.

When Gulf War I began on Jan. 17, 1991, CNN and ABC were broadcasting live from Baghdad. The coalition air component staff in Riyadh, Saudi Arabia, was watching CNN. When it went off the air abruptly, they knew the Iraqi International Telecommunications Center had been taken out.

Live television coverage of war became the norm. Casualties were no longer distant and abstract. The impact on public opinion was called "the CNN effect."

not guarantee the safety of the human shields, but probably took their presence into account.

It was fairly safe for the human shields to defy the United States, but they don't show up when the Saddam Husseins of the world are on the march.

"Casualty Aversion"

In the opinions of some, the US armed forces have gone too far in avoiding casualties. That view was heard periodically during the 1990s, but it gained steam after the conflict in Kosovo and Serbia in 1999.

Airpower was the only force used against the Serbs. Ground forces were not engaged and were months away from being ready to engage.

"Despite the accuracy of the air attacks, too many civilians were killed while allied combatants avoided risk," retired Marine Corps Lt. Gen. Bernard E. Trainor wrote in *The Boston Globe*. "This turns a principle of a just war on its head—specifically, the obligation to protect the innocent at the expense of the warrior. Another troubling and similar aspect of the so-called 'immaculate' air campaign is the ability to drive an enemy to his knees without shedding a drop of the bomber's blood. Normally, the litmus test of going to war was the willingness to suffer casualties in pursuit of its objective."

Secretary of Defense William S. Cohen and Gen. Henry H. Shelton, Chairman of the Joint Chiefs of Staff, added fuel to the fire when they told the Senate Armed Services Committee that "the paramount lesson learned from Operation Allied Force is that the well-being of our people must remain our first priority."

Jeffrey Record, professor of strategy, doctrine, and airpower at the Air War College, agreed with Trainor.

"Force protection fetishism was on full display during the Kosovo crisis," Record wrote. He said, "Ground-combat options were self-denied. Airpower was kept at safe altitudes. Clausewitz was stood on his head."

In Record's assessment, "The long-term effect was to broadcast to friend and foe alike America's Achilles's

The Terrible Toll of World War II

	Military Deaths	Civilian Deaths due to war
Allied Powers		
USSR	11,000,000	7,000,000
China	1,310,224	10,000,000
UK/British Commonwealth	373,372	92,673
Yugoslavia	305,000	1,200,000
United States	292,131	6,000
France	213,324	350,000
Poland	123,178	5,675,000
Greece	88,300	325,000
Others: Belgium, Brazil, Czechoslovakia, Denmark, Netherlands, Norway, Philippines	62,643	591,000
Allied Totals	13,768,172	25,239,673
Axis Powers		
Germany	3,500,000	780,000
Japan	1,300,000	672,000
Romania	300,000	200,000
Italy	242,232	152,941
Hungary	200,000	290,000
Others: Bulgaria, Finland	92,000	12,000
Axis Totals	5,634,232	2,106,941

Source: *Encyclopedia Britannica*

heel as we enter the 21st century." He said the force protection fetishism was "rooted in Vietnam—specifically in the resultant Weinberger-Powell Doctrine."

US combat operations in Afghanistan were "conducted in a manner consistent with those of casualty phobic Operations Deliberate Force (Bosnia) and Allied Force (Kosovo)," Record said.

Peter D. Feaver and Christopher Gelpi of Duke University called the phenomenon "casualty aversion" and said it is most prevalent among military leaders.

"A majority of the American people will accept combat deaths—so long as the mission has the potential to be successful," they maintained. "The public can distinguish between suffering defeat and suffering casualties."

Feaver and Gelpi said, "Troops

are supposed to be willing to die, so that civilians do not have to."

The merit of these accusations depends on the eye of the beholder. Do US forces shy away from casualties in general, or do they avoid unnecessary casualties?

The operations in Bosnia, Kosovo, and Afghanistan were concluded successfully and swiftly with low casualties. Would more risk have been better?

Gulf War II followed a similar pattern.

After more than three weeks of fighting, US forces were in control of Baghdad. Their losses included 116 dead, including deaths attributable to accidents as well as those killed by direct military fire.

There was no feeling of "casualty aversion" to it, but, on the other hand, it wasn't the Battle of the Somme, either. ■

John T. Correll was editor in chief of *Air Force Magazine* for 18 years and is now a contributing editor. His most recent article, "The Evolution of the Bush Doctrine," appeared in the February issue.