Not long ago, viewers of CBS’s 60 Minutes were treated to an intriguing bit of political theater when, in a story called “The Pentagon’s Ray Gun,” a crowd of what seemed to be angry protesters confronted a Humvee with a sinister-looking dish antenna on its roof. Waving placards that read world peace, love for all, peace not war, and, oddly, hug me, the crowd, in reality, was made up of U.S. soldiers playacting for the camera at a military base in Georgia. Shouting “Go home!” they threw what looked like tennis balls at uniformed comrades, “creating a scenario soldiers might encounter in Iraq,” explained correspondent David Martin: “angry protesters advancing on American troops, who have to choose between backing down or opening fire.” Fortunately—and this was the point of the story—there is now another option, demonstrated when the camera cut to the Humvee, where the “ray gun” operator was lining up the “protesters” in his crosshairs. Martin narrated: “He squeezes off a blast. The first shot hits them like an invisible punch. The protesters regroup, and he fires again, and again. Finally they’ve had enough. The ray gun drives them away with no harm done.” World peace would have to wait.

The story was in essence a twelve-minute Pentagon infomercial. What the “protesters” had come up against was the Active Denial System, a weapon, we were told, that “could change the rules of war and save huge numbers of lives in Iraq.” Active denial works like a giant, open-air microwave oven, using a beam of electromagnetic radiation to heat the skin of its targets to 130 degrees and force anyone in its path to flee in pain—but without injury, officials insist, making it one of the few weapons in military history to be promoted as harmless to its targets. The Pentagon claims that 11,000 tests on humans have resulted in but two cases of second-degree burns, a “safety” record that has put active denial at the forefront of an international arms-development effort involving an astonishing range of...
technologies: electrical weapons that shock and stun; laser weapons that cause dizziness or temporary blindness; acoustic weapons that deafen and nauseate; chemical weapons that irritate, incapacitate, or sedate; projectile weapons that knock down, bruise, and disable; and an assortment of nets, foams, and sprays that obstruct or immobilize.

“Non-lethal” is the Pentagon’s approved term for these weapons, but their manufacturers also use the terms “soft kill,” “less-lethal,” “limited effects,” “low collateral damage,” and “compliance.” The weapons are intended primarily for use against unarmed or primitively armed civilians; they are designed to control crowds, clear buildings and streets, subdue and restrain individuals, and secure borders. The result is what appears to be the first arms race in which the opponent is the general population.

That race began in the Sixties, when the rise of television introduced a new political dynamic to the exercise of state violence best encapsulated by the popular slogan “The whole world is watching.” As communications advances in the years since have increasingly exposed such violence, governments have realized that the public’s perception of injury and bloodshed must be carefully managed. “Even the lawful application of force can be misrepresented to or misunderstood by the public,” warns a 1997 joint report from the Pentagon and the Justice Department. “More than ever, the police and the military must be highly discreet when applying force.”

It is a need for discretion rooted in one of the oldest fears of the ruling class—the volatility of the mob—and speaks to rising anxieties about crowd control at a time when global capitalism begins to run up against long-predicted limits to growth. Each year, some 76 million people join our current 6.7 billion in a world of looming resource scarcities, ecological collapse, and glaring inequalities of wealth; and elites are preparing to defend their power and profits. In this new era of triage, as democratic institutions and social safety nets are increasingly considered dispensable luxuries, the task of governance will be to lower the political and economic expectations of the masses without inciting full-blown revolt. Non-lethal weapons promise to enhance what military theorists call “the political utility of force,” allowing dissent to be suppressed inconspicuously.

As outlined in many documents, some of them only recently declassified, U.S. policymakers have long understood themselves to be engaged in an active arms race with protesters both at home and abroad, and have viewed the acquisition of new crowd-control technology as a significant research goal. When the leveling power of mass communications has increased the ability of protesters to achieve concrete political gains, the Pentagon and federal law-enforcement agencies have responded by developing more media-friendly systems of control. Now, under cover of the “war on terror,” the deployment of these systems on the home front has dramatically escalated, an omen of a new phase in the ongoing class conflict.

Indeed, as already deteriorating economic conditions in the United States took a sharp turn for the worse in September 2008, the Army Times reported that the 3rd Infantry Division’s 1st Brigade Combat Team was being redeployed from Iraq to the “homeland” with what one colonel called the “first ever nonlethal package that the Army has fielded,” and that “they may be called upon to help with civil unrest and crowd control.” By 2011, according to Defense Department officials, 20,000 active-duty troops will be assigned to help state and local authorities respond to domestic crises. Since the Great Panic of the 1870s, Americans have taken to the streets to demand greater democracy approximately every thirty years—during the Progressive Era, the Depression, and the Sixties. Perhaps the Pentagon feels we’re overdue.

Television’s entry into American political life coincided with the rise of the civil-rights movement in the South. The first sign that the new medium was making crowd control problematic came with growing black militancy in the early Sixties. Activists discovered that John F. Kennedy, whose election to the presidency had inspired great hope for the redress of racial inequality, would intervene to protect the rights of black people only if compelled by media exposure of white-supremacist violence, and so with a keen sense for street theater they began to use civil disobedience to bring local governments into vivid, televised conflicts with federal authority. The goal was both the moral jujitsu of Richard Gregg’s classic study, _The Power of Non-Violence_, which compares Gandhi’s nonviolent resistance to the deft maneuvers of the martial art, and what Chicago community organizer Saul Alinsky called “political jujitsu”—“utilizing the power of one part of the power structure against another part”—in this case, arousing the Northern public’s moral outrage to force federal action against Southern segregationists. Television’s visual immediacy and vast reach provided the leverage.

Martin Luther King Jr. and the Southern Christian Leadership Conference won the movement’s first major battle, of course, in the Birmingham, Alabama, anti-segregation campaign of 1963. Culminating in huge youth marches that _Newsweek_ named the “Children’s Crusade,” the campaign captured unprecedented media attention when a thousand high school students took to the streets in defiance of a court injunction and Public Safety Commissioner Bull Connor ordered his men to turn high-pressure fire hoses and police dogs on them.² As images of Connor’s ugly methods filled television screens and

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¹ In addition to such well-known non-lethal technologies as rubber bullets, pepper spray, and Tasers, researchers are investigating many other, more exotic approaches to crowd control: the LED Incapacitor, or “pulsar ray,” which uses pulsating multicolored lights to produce vertigo and nausea; MEDUSA (Mob Excess Deterrent Using Silent Audio), which uses a beam of microwaves to induce uncomfortable auditory sensations in the skull; and the Pulsed Energy Projectile, which uses a burst of infrared laser energy to create a “plasma pulse” around the target, overwhelming his or her nervous system.

² Connor’s men used both fire hoses and “monitor guns,” a type of water cannon. These devices were rarely deployed in the U.S. after Birmingham. Elsewhere, however, the use of water cannons remains common.
front pages worldwide, the Kennedy Administration found itself facing rising anger in the North's black ghettos, outrage from white liberals, and a Cold War public-relations debacle that escalated when Klansmen bombed King's brother's house and the SCLC's headquarters. Kennedy finally dispatched 3,000 federalized National Guardsmen to help persuade white officials to negotiate. Black activists were mobilized as never before: that summer, the Justice Department counted more than 1,400 civil-rights demonstrations nationwide, including the landmark march on Washington.

Two years later, when the SCLC employed a similar strategy in Selma, the city's sheriff, Jim Clark, showed that he had learned nothing from Bull Conner: Clark and his deputized "posse" used electric cattle prods to drive 150 young protesters on a forced march into the countryside. Then came "Bloody Sunday," when, with dozens of reporters and cameramen present, Clark's mounted posse, backed by Alabama state troopers, charged into a parade of 600 marchers on Selma's Edmund Pettus Bridge, wielding tear gas, clubs, and cattle prods against people dressed for church. That evening, in one of television's most remarkable moments, ABC interrupted its Sunday Night Movie—Judgment at Nuremberg, appropriately—with fifteen minutes of graphic footage from the attack. A week later, as protest mounted across the United States, Lyndon Johnson introduced the Voting Rights Act, legislation that, at long last, would guarantee all Americans the vote.

But Johnson's gesture may have come too late. Television had also changed the dynamics of the ghetto uprising: never before could riots leap so contagiously from city to city and coast to coast. Starting in 1964, when a police shooting in Harlem sparked riots that spread to Brooklyn, Newark, Philadelphia, and Rochester, each summer brought wider and more devastating outbreaks of urban unrest—in April 1968, King's assassination sparked riots in more than a hundred cities. As King himself had once said, "Riots are the voice of the unheard," and, increasingly, city governments began to listen to their black citizens.

At the same time, coverage of the escalating Vietnam War was also fueling unrest with evening newscasts of the fierce Tet Offensive. A young nation of potential draftees saw what was in store for them, and antiwar protest erupted on campuses across the nation. In Chicago that August, Mayor Richard Daley was taking no chances with the Democratic National Convention; he dispatched thousands of National Guardsmen to patrol with fixed bayonets and sent an Army brigade to wait in the suburbs. Police violence against antiwar groups climaxed when, in full view of television cameras, Chicago cops attacked protesters outside the Hilton Hotel, swinging nightsticks at anyone within reach. "The whole world is watching!" roared the crowd. Convention delegates denounced Daley for "Gestapo tactics," and a commission later called the melee a "police riot," but the mayor was unperturbed. "A policeman is not there to create disorder," he explained in a memorable malapropism. "A policeman is there to preserve disorder."

By April 1970, Ronald Reagan, then the governor of California, was telling reporters, "If it takes a bloodbath, let's get it over with. No more appeasement." Three weeks later, after Richard Nixon went on live television to announce his order to expand the war to Cambodia, the National Guard was mobilized against campus uprisings in sixteen states. At Kent State University, in Ohio, troops opened fire on protesters, killing four and wounding nine. Ten days later, police opened fire on a women's dormitory at Jackson State College in Mississippi, killing two students and wounding nine more. In the resulting furor, Nixon, according to his secretary of state, Henry Kissinger, yielded to "public pressure" and announced a timetable for withdrawal from Cambodia.

Policymakers, recognizing the growing influence of civil disobedience and riots on the direction of the nation, had already begun turning to science for a response. Little had changed in crowd-control technology since the 1920s, when the Army Chemical Warfare Service persuaded some larger U.S. police departments to adopt the CN, or "tear gas," used in the trenches during World War I. If technological advances had improved every other part of the U.S. system of production and control, why shouldn't science now provide a better way to control society's unruly elements?
Among these policymakers was the National Advisory Commission on Civil Disorders, better known as the Kerner Commission, which noted ruefully in its 1968 report: “The police who faced the New York riot of 1863 were equipped with two weapons: a wooden stick and a gun. For the most part, the police faced with urban disorders last summer had to rely on two weapons: a wooden stick and a gun.”

Convened by Lyndon Johnson in July 1967 after devastating riots in Newark and Detroit, the Kerner Commission released its report the following March, only weeks before King’s assassination. It blamed “white racism” for creating an “explosive mixture which has been accumulating in our cities since the end of World War II” and was widely quoted for its ominous conclusion: “Our nation is moving toward two societies, one black, one white—separate and unequal.” The commission proposed vast initiatives to reduce inner-city unemployment, improve schools and housing, and end the police bias and brutality that played a major role in sparking the riots. “To many Negroes,” the commission noted, “police have come to symbolize white power, white racism, and white repression.” Especially severe were its comments on the “excessive use of force”:

The commission recognized that in riot control, the dilemma facing police was “too much force or too little.” Warning that excessive force “will incite the mob to further violence, as well as kindle seeds of resentment for police that, in turn, could cause a riot to recur,” the commission identified the problem as the lack of a “middle range of physical force.” It saw the solution in “non-lethal control equipment,” and called for an urgent program of research, noting some of the possibilities:

- Distinctive marking dyes or odors and the filming of rioters have been recommended both to deter and positively identify persons guilty of illegal acts. Sticky tapes, adhesive blobs, and liquid foam are advocated to immobilize or block rioters. Intensely bright lights and sound distressing sounds capable of creating temporary disability may prove to be useful. Technology will provide still other options.
- Until then, police were advised to use “chemical agents” to suppress riots, particularly CS, the successor to CN, which the Army had already deployed in Vietnam—not to control riots but to flush enemy troops out of tunnels and bunkers, in violation of the Geneva Protocol. Despite widespread outrage over the military’s use of chemical weapons in Vietnam, the commission argued that Army experience proved CS was “more effective and safer” than the traditional CN, and therefore “the understandable concern of many police and public officials as to the wisdom of using massive amounts of gas in densely populated areas need no longer prove a barrier.”
- Republicans denounced the commission’s spending proposals as “soft on crime,” and Johnson, too, rejected them. The commission’s riot-control recommendations, however, were quickly adopted into the Omnibus Crime Control and Safe Streets Act, a bill that funded a veritable Manhattan Project for domestic policing, creating, among other things, the Law Enforcement Assistance Administration, which over the next decade released $12 billion for local police to modernize their training and hardware; police departments across the country were soon stocking up on CS and gas masks. The LEAA’s research arm, the National Institute of Law Enforcement and Criminal Justice, in turn spawned an entire cottage industry devoted to producing “non-lethal control equipment,” including handheld dispensers of “chemical irritants,” “blunt trauma” projectiles like the rubber bullets used by the British in Northern Ireland, electrical devices like the “shock baton,” and the Taser, the first version of which appeared in 1971.

There followed such a flurry of invention that in 1971 the National Science Foundation stepped in to provide guid-

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4 Although the 1925 Geneva Protocol prohibits the production, stockpiling, and use of chemical weapons—including “tear gas”—in warfare, certain “riot-control agents” have long been used in domestic law enforcement. The United States has always claimed the prerogative to use RCAs in riot control during military operations abroad; some 15 million pounds of CS were used during the Vietnam War.

5 “Taser” is an acronym for the Thomas A. Swift Electric Rifle, named after the inventor-hero of the popular boys’ adventure novels, which were a childhood favorite of the weapon’s inventor, John Cover, a NASA scientist.
ance, sponsoring a study published as Nonlethal Weapons for Law Enforcement: Research Needs and Priorities, part of its project to “identify areas in which scientific research can help solve social problems”; out of this grew an Army Human Engineering Laboratory program to test weapons under scientific conditions. Soon, nearly all of today’s concepts for non-lethal weapons had either been proposed or were in some stage of development.

But as ghettos quieted and antiwar protest declined, interest in these technologies faded; the new front was the “war on drugs” declared by Richard Nixon. The LEAA spent billions of dollars to equip local police with helicopters, mobile command centers, and state-of-the-art radio systems. Los Angeles created the Special Weapons and Tactics team, and drug-war funding soon made SWAT the model for law enforcement, spreading military hardware and commando training far and wide—a trend that escalated dramatically after Ronald Reagan, now president, declared his own “war on drugs” and Congress passed the 1981 Military Cooperation with Law Enforcement Act. One result of giving domestic police advanced military capabilities was that the United States soon led the world in jailing its citizens; as of 2007, 2.3 million were incarcerated, with an additional 5.1 million under some form of correctional supervision.

In 1989, the whole world was again watching as a series of dramatic rebellions revealed the media’s new extended reach, now magnified by satellite television and the rise of twenty-four-hour news networks like CNN. Again, ruling elites found their decisions exposed to the judgment of millions (or now, in some cases, billions) of television viewers; again, protesters turned the media’s attention into a weapon of political jujitsu, sometimes called “sousveillance” or “inverse surveillance”—made its debut when Los Angeles resident George Holliday shot a video of three Los Angeles Police Department officers clubbing a prone black man while a dozen more officers stood by watching. The Christopher Commission, convened to investigate racism and excessive force within the LAPD, found that Rodney King was shot twice with a Taser, which apparently malfunctioned, and given fifty-six “power strokes” with metal riot batons (ironically, the LAPD had been experimenting with Tasers in an effort to reduce civil-liability suits resulting from its use of riot batons). In April 1992, when the officers charged with assaulting King were found not guilty, Los Angeles erupted in the largest civil disturbance in U.S. history.

But authorities had still not learned the power of television to promote martyrdom, and that it didn’t matter how far out on the fringe the potential martyrs might be. The following April again found U.S. law enforcement on the defensive as millions watched the ferry conclusion of the FBI’s fifty-one-day siege of Mount Carmel, home of the Branch Davidian Seventh-Day Adventists in Waco, Texas. The Bureau of Alcohol, Tobacco, and Firearms had sent a seventy-man SWAT team to raid the obscure sect’s compound, and brought along a crew from local KWTV; TV in order, according to some reports, to enhance the ATF’s image for upcoming budget hearings. A gunfight left four ATF men and six Davidians dead, and soon thereafter hundreds of FBI agents began a siege, supported by local police, National Guard, Army Delta Force rangers, and an array of armor including nine Bradley fighting vehicles and two Abrams tanks. The ensuing seven-week media spectacle ended with a dawn assault, with FBI agents in tanks punching through the walls of the compound to pump in a mix of CS and methylene chloride, and other agents shooting hundreds of CS-filled rounds through windows. CS can be lethal in enclosed areas, and many Davidians may have been unconscious in January 1991, an event Lithuania referred to as “Bloody Sunday.”

In March of 1991, as the first made-for-TV war ended in Iraq, a new form of political jujitsu—sometimes called “sousveillance”—made its debut when Los Angeles resident George Holliday shot a video of three Los Angeles Police Department officers clubbing a prone black man while a dozen more officers stood by watching. The Christopher Commission, convened to investigate racism and excessive force within the LAPD, found that Rodney King was shot twice with a Taser, which apparently malfunctioned, and given fifty-six “power strokes” with metal riot batons (ironically, the LAPD had been experimenting with Tasers in an effort to reduce civil-liability suits resulting from its use of riot batons). In April 1992, when the officers charged with assaulting King were found not guilty, Los Angeles erupted in the largest civil disturbance in U.S. history.

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or dead when Mount Carmel began to burn. Nearly eighty died in the fire, including more than two dozen children, compelling President Bill Clinton to explain, absurdly, that the assault was undertaken to prevent child abuse. FBI Assistant Director Larry Potts was more blunt, telling reporters, “These people had thumbed their noses at law enforcement.”

Several congressional investigations absolved federal authorities of blame, but many Americans who had no special sympathy for the sect’s leader, David Koresh, nonetheless began to ask unsettling questions. Citing an opinion poll in Time magazine, John Danforth, the former senator who headed an investigation of the events at Waco, lamented the loss of authority made evident by the assault on the compound. “When 61 percent of the people believe that the government not only fails to ensure ‘life, liberty and the pursuit of happiness’ but also intentionally murders people by fire,” he wrote, “the existence of public consent, the very basis of government, is imperiled.”

Clearly, better weapons were needed. Pentagon analysts were predicting that the New World Order, as George H. W. Bush called the desired arrangement, would require an increase in so-called Military Operations Other Than War, or MOOTW. In 1991, a think tank called the U.S. Global Strategy Council published Nonlethality: A Global Strategy. The report argued that non-lethal weapons offered “revolutionary” advantages, particularly in minimizing political fallout from images of innocents killed accidentally in war zones—now known as the “CNN effect.” One of the policymakers most influenced by the report was Secretary of Defense Dick Cheney, who formed the Non-Lethal Warfare Study Group. His plan was to launch an arms program on the model of Ronald Reagan’s massive Strategic Defense Initiative, which had called for creating an umbrella of missile-killing satellites that would put an end to the Cold War.

The generals who would actually implement the non-lethal weapons program remained skeptical. It gained little support until the Battle of Mogadishu in 1993, when, in the fiercest street fighting U.S. troops had seen since the Battle of Hue during the Vietnam War, Somali militiamen, aided by civilians, overran a task force of elite Army Rangers, leaving two Blackhawk gunships destroyed, eighteen American soldiers dead, and thousands of Somali civilians killed or injured in the crossfire. The episode revealed some disturbing problems with the U.S. strategy for urban combat, and when CNN aired images of a triumphant Somali mob dragging a Ranger’s body through the streets, public outcry forced the Clinton Administration to rapidly withdraw troops. The House Committee on Foreign Affairs subsequently held hearings on the “Impact of Television on U.S. Foreign Policy,” during which the chairman, Lee Hamilton, asked, somewhat plaintively, “What should policymakers do, if anything, to prevent television from setting their agenda?”

More troubling to the Pentagon, however, was the prospect that many more Mogadishus lay ahead. In 1994, the Army commissioned the RAND Corporation to study “how demographic changes will affect future conflict,” and the result was a report called The Urbanization of Insurgency. RAND concluded that by the turn of the century, more than half the cities with more than a million people would be located in the developing world and that this explosive urban growth would occur “irrespective of industrial development, economic progress, or employment opportunity.” According to the report, the “slums and shantytowns that now ring the developing world’s urban centers” were providing fertile conditions for insurgency, “an expanding...
and increasingly restive pool of idle, frequently uneducated and unskilled young people trapped in their native lands and bereft of hope or employment.” Without huge anti-poverty efforts—and RAND, perhaps learning from the failed optimism of the Kerner Commission, assumed none would be forthcoming—the Army’s future lay in patrolling the world’s ghettos precints, a task for which it was ill-prepared. “Neither U.S. doctrine, nor training, nor equipment is designed for urban countersurgen-cy,” RAND warned.

Meanwhile, the Los Angeles riots and the Waco siege had convinced the Department of Justice to expand its own domestic “less-than-lethal” weapons program, and in April 1994, citing a “growing convergence between the technology required for military operations and the technology required for law enforcement,” the Pentagon and the Justice Department launched a joint research program. This program, led, in 1997, to the Pentagon’s creation of the Joint Non-Lethal Weapons Directorate, charged with advancing the use of these weapons by the armed services and civilian police.9 By the end of the decade, NATO, Israel, the United Kingdom, and Canada had begun similar programs, linked to the JNLWD through liaisons and research-sharing agreements. Outreach and training is currently under way with allies in the developing world, and both Russia and China have major research programs. The ultimate goal, it seems, is to fight “Military Operations on Urban Terrain” (MOUT), using weapons with a rheostatic capability that, like Star Trek’s “phasers,” will allow military commanders to fine-tune the amount and type of force used in a given situation, and thereby to control opponents’ behavior with the scientific precision of a well-managed global production system.

The first significant use of these new weapons, appropriately, was against the fierce anti-globalization demonstrations that began at the World Trade Organization conference in Seattle in 1999. The largest upsurge of the left since the Sixties, the anti-globalization movement mobilized thousands of separate groups in a campaign against the human and environmental costs of corporate imperialism. Protesters had a new technology of their own to exploit—the Internet, which provided an unprecedented means of organizing and sharing information. More than 40,000 protesters converged on Seattle that November with the widely announced intention of “shutting down the WTO” in order to highlight its predatory “free trade” policies. With mass civil disobedience coordinated by cell phones and laptops, teams trained in nonviolence formed human blockades at strategic locations, snarling traffic, trapping trade delegates in hotels, and barricading conference sites; many thousands more swarmed streets in a “Festival of Resistance,” paralyzing the city’s business district.

Police attacked demonstrators with nearly every non-lethal weapon available to civilian authorities: MK-46 pepper-spray “Riot Extinguishers,” CS and CN grenades, pepper-spray grenades, pepperball launchers, “stinger” rubber-ball grenades, flashbang concussion grenades, and a variety of blunt-trauma projectiles. But the protesters held their positions, forcing WTO officials to cancel that day’s events, and although news reports distorted the events—focusing single-mindedly on the Starbucks and NikeTown vandalized by a small faction of anarchists—“Americans,” as Newsweek noted, “may never think the same way about free trade and what it costs.” More significant was the response of the developing nations’ trade delegates, who, emboldened by the spotlight on Seattle, revolted against rich nations’ attempt to push through agreements that would have permitted the patenting of genetically modified seeds and the continued “dumping” of subsidized agricultural produce in poorer nations’ markets, practices that threatened to bankrupt millions of Third World farmers. By the end of the week negotiations had collapsed, a setback from which the WTO has never really recovered.

Galvanized by their victory, protesters targeted economic summits in rapid succession, swarming meetings of the World Economic Forum, the G8, and other gatherings in a dozen major cities. But without Seattle’s advantage of surprise, they faced increasingly elaborate MOUT tactics. At the July 2001 G8 summit in Genoa, more than 100,000 protesters confronted 15,000 police and troops on streets locked down under a terrorism red alert; one protestor was killed and hundreds were injured in street fighting, and scores more were hospitalized due to police beatings in midnight raids on lodgings.10 The next big demonstration was planned for the September 2001 World Bank summit in Washington, D.C., but organizers backed away after the attacks on September 11.

On February 15, 2003, an estimated 20 million people filled the streets of the world’s cities to oppose the imminent invasion of Iraq, an expression of public opinion the New York Times called the world’s new second superpower. The administration was, of course, unmoved; “Democracy is a beautiful thing,” joked George W. Bush at a press conference. The RAND Corporation, for its part, had already anticipated the power of what it called “netwar,” in which networks of “nonstate actors” use “swarming tactics” to overwhelm police and military. As RAND analysts wrote in a 2001 study, Networks, Netwars, and the Fight for the Future, the practitioners of such tactics “are proving very hard to deal with; some are winning. What all have in common is that they operate in small dispersed units that can deploy nimblly and “know how to swarm and disperse, penetrate and disrupt, as well as elude and evade,” all aided by

9 The Department of Justice uses the term “less-than-lethal” rather than “non-lethal,” presumably as protection against civil-liability suits; the Department of Defense continues to favor “non-lethal.”

10 Current MOUT doctrine is summarized in a 2001 RAND study called Corralling the Trojan Horse. As the title suggests, the general strategy is to restrict and monitor all movement within a city: using physical barriers or other means to “sector and seal,” denying access to key areas, and isolating combatants from non-combatants.
As Colonel Kirk Hymes of the JNLWD explained, “We want to just make sure that all the conditions are right, so when it is able to be deployed the system performs as predicted—that there isn’t any negative fallout.”

The next hurdle for non-lethality, as Colonel Hymes’s comments suggest, will be the introduction of so-called second-generation non-lethal weapons into everyday policing and crowd control. Although “first-generation” weapons like rubber bullets and pepper spray have gained a certain acceptance, despite their many drawbacks, exotic technologies like the Active Denial System invariably cause public alarm. Nevertheless, the trend is now away from chemical and “kinetic” weapons that rely on physical trauma and toward post-kinetic weapons that, as researchers put it, “induce behavioral modification” more discreetly. One indication that the public may come to accept these new weapons has been the successful introduction of the Taser—apparently, even the taboo on electroshock can be overcome given the proper political climate. Indeed, the history of the device is instructive.

The Rodney King affair might have ended the use of this weapon had it not been for the foresight of the Smith brothers of Scottsdale, Arizona, whose company, Taser International, acquired the technology and then marketed it through strategic advertising. In the four years since the Los Angeles riots, the company has sold over 100,000 of the devices. In Northern Ireland for the number of deaths and injuries they caused, especially among children; they have become similarly notorious among Israeli Arabs and Palestinians. As a 2003 National Research Council report noted, “Control of trauma level from blunt projectiles remains a serious problem.” The evidence from Northern Ireland, in fact, is that rubber bullets often inflame, rather than disperse, crowds.

The emerging paradigm is “effects-based” weapons design, a form of reverse engineering in which the desired psychological effects on targets are identified—that is, “pain or lethargy or disorientation—and then a mechanism is devised to induce that effect. The goal is to be able to control individuals and groups through increasingly selective “weapons-effects.”

11 “We Must Fight the Net,” declared the Pentagon in its own October 2003 “Information Operations Roadmap,” which outlined a new strategic thrust for “dominating the information spectrum” by transforming information operations “into a core military competency on par with air, ground, maritime and special operations.”
THE SIXTIES:  
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rights from the original maker. In 1998 they set out to re-engineer the device so that it could deliver more dependable, higher-powered shocks. The company introduced the M26, the first of its “advanced electronic control devices,” in 2000, and turned its first profit in 2001, largely due to purchases by airlines in the wake of the September 11 attacks. Taser International soon named former New York Police Commissioner and official 9/11 hero—and, now, convicted felon—Bernard Kerik to its board of directors; with Kerik’s appointment as Iraq’s interim interior minister and his nomination to head the Department of Homeland Security, weapons sales and company stock skyrocketed. At last count, some 350,000 Tasers were deployed among 13,000 U.S. police, corrections, and military agencies, and the company estimates that its weapons are used more than 600 times each day.

Originally sold as an alternative to firearms, the Taser today has become an all-purpose tool for what police call “pain compliance.” Mounting evidence shows that the weapon is routinely used on people who pose little threat: those in handcuffs, in jail cells, in wheelchairs and hospital beds; schoolchildren, pregnant women, the mentally disturbed, the elderly; irate shoppers, obnoxious lawyers, argumentative drivers, nonviolent protesters—in fact, YouTube now has an entire category of videos in which people are Tasered for dubious reasons. In late 2007, public outrage flared briefly over the two most famous such videos—those of college student Andrew Meyer “drive-stunned” at a John Kerry speech, and a distraught Polish immigrant, Rober Dziekanski, dying after repeated Taser jolts at Vancouver airport—but police and weapon were found blameless in both incidents. Strangely, YouTube’s videos may be promoting wider acceptance of the Taser; it appears that many viewers watch them for entertainment.

Flush with success, Taser Interna-
tional is now moving more directly into crowd control. Among its new offerings are a “Shockwave Area-Denial System,” which blankets the area in question with electrified darts, and a wireless Taser projectile with a 100-meter range, helpful for picking off “ringleaders” in unruly crowds. In line with the Pentagon’s growing interest in robotics, the company has also started a joint venture with the iRobot Corporation, maker of the Roomba vacuum cleaner, to develop Taser-armed robots; and in France, Taser’s distributor has announced plans for a flying drone that fires stun darts at criminal suspects or rioters.

Second-generation non-lethal weapons already appear to have been tested in the field. In a first in U.S. crowd control, protesters at last September’s G20 summit in Pittsburgh found themselves clutching their ears in pain as a vehicle mounted with an LRAD circled streets emitting a piercing “deterrent tone.” First seen (but not used) at the 2004 Republican Convention, the LRAD has since been used on Iraqi protesters and on pirates off the Somali coast; the Israeli Army has used a similar device against Palestinian protesters that it calls “the Scream,” which reportedly causes overwhelming dizziness and nausea. The 2009 Pittsburgh G20 protests also produced another U.S. first when a New York social worker was arrested for posting details of police movements to a Twitter feed; when Iranian protesters made similar use of Twitter during the contested elections last summer, U.S. elites had nothing but praise.

It may be “tactical pharmacology,” finally, that holds the most promise for quelling the unrest stirred by capitalist meltdowns, imperialist wars, and environmental collapse. As JNLWD research director Susan Levine told a reporter in 1999, “We need something besides tear gas, like calmsatives, anesthetic agents, that would put people to sleep or in a good mood.” Pentagon interest in “advanced riot-control agents” has long been an open secret, but just how close we are to seeing these agents in action was revealed in 2002, when the Sunshine Project, an
arms-control group based in Austin, Texas, posted on the Internet a trove of Pentagon documents uncovered through the Freedom of Information Act. Among these was a fifty-page study titled “The Advantages and Limitations of Calmatives for Use as a Non-Lethal Technique,” conducted by Penn State’s Applied Research Laboratory, home of the JNLWD-sponsored Institute for Non-Lethal Defense Technologies.

Penn State’s College of Medicine researchers agreed, contrary to accepted principles of medical ethics, that “the development and use of non-lethal calming techniques is both achievable and desirable,” and identified a large number of promising drug candidates, including benzodiazepines like Valium, serotonin-reuptake inhibitors like Prozac, and opiate derivatives like morphine, fentanyl, and carfentanyl, the last commonly used by veterinarians to sedate large animals. The only problems they saw were in developing effective delivery vehicles and regulating dosages, but these problems could be solved readily, they recommended, through strategic partnerships with the pharmaceutical industry.16

Following the Sunshine Project’s revelations, the JNLWD quickly issued denials, and subsequent Freedom of Information Act requests have been refused on national security grounds—and also, no doubt, because such research is prohibited by the 1993 Chemical Weapons Convention, signed by more than 180 nations and ratified by the U.S. Senate in 1997. Little more was heard about the Pentagon’s “advanced riot-control agent” program until July 2005, when the Army announced that production was scheduled for its XM1063 “non-lethal personal suppression projectile,” an artillery shell that bursts in midair over its target, scattering 152 canisters over a 100,000-square-foot area, each dispersing a chemical agent as it parachutes down. There are many indications that a calmative, such as fentanyl, is the intended payload—a literal opiate of the masses.

It may seem absurd that the eternal battle between the haves and the have-nots may devolve into a Marxist pun. But several generations of U.S. policymakers have struggled to realize this very absurdity, and they have been quite articulate about their reasons—perhaps never more so than at an April 8, 1997, Senate hearing on the Chemical Weapons Convention. Three former secretaries of defense—Donald Rumsfeld, Caspar Weinberger, and James Schlesinger—appeared together to voice their opposition to ratification, with Schlesinger reading a letter of opposition from yet another former defense secretary, Dick Cheney. All of them objected to the treaty’s prohibition against using “riot-control agents” as a “method of warfare,” and on this subject Schlesinger, who served under Richard Nixon, repeated a familiar argument. If riot-control agents were to be banned, “whether in peace or war,” he said, “we may wind up placing ourselves in the position of the Chinese government in dealing with the Tiananmen Square uprising in 1989. The failure to use tear gas meant that the government only had recourse to the massive use of firepower to disperse the crowd.”17

It is striking, of course, that a former American defense official would so publicly identify with the leaders of an authoritarian Communist regime. Perhaps even more striking, though, is that the formulators of our policy of pain compliance feel so limited in their options—confronted by citizens calling for change, their only response is to seek control or death. There are many other possible responses, most of them far better attuned to the democratic ideals they espouse in other contexts. That pain compliance seems to them the best alternative to justice is an indictment not of the dreams of the protesters but of the nightmares of those who would control them.

16 Russian researchers may have been thinking along similar lines. When fifty Chechen separatist guerrillas took 800 Moscow theatergoers hostage in 2002, Russian special forces pumped an aerosolized fentanyl derivative through the theater’s ventilation system, knocking everyone inside unconscious before storming the building. The Chechens were shot on sight, reportedly, and the rescue was considered a success, but 129 hostages died from sedative-induced respiratory depression.

17 Congress ratified the treaty, but with the addition of Condition 26, which exempts the United States from restrictions on the use of riot-control agents during military peacekeeping operations.