Selling the Second Cold War: Antinuclear Cultural Activism and Reagan Era Foreign Policy

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William M. Knoblauch

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This dissertation titled
Selling the Second Cold War: Antinuclear Cultural Activism and Reagan Era Foreign
Policy

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ABSTRACT

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Selling the Second Cold War: Antinuclear Cultural Activism and Reagan Era Foreign Policy

Director of Dissertation: Chester J. Pach

This dissertation examines how 1980s antinuclear activists utilized popular culture to criticize the Reagan administration’s arms buildup. The 1970s and the era of détente marked a decade-long nadir for American antinuclear activism. Ronald Reagan’s rise to the presidency in 1981 helped to usher in the “Second Cold War,” a period of reignited Cold War animosities that rekindled atomic anxiety. As the arms race escalated, antinuclear activism surged. Alongside grassroots movements, such as the nuclear freeze campaign, a unique group of antinuclear activists—including publishers, authors, directors, musicians, scientists, and celebrities—challenged Reagan’s military buildup in American mass media and popular culture. These activists included Fate of the Earth author Jonathan Schell, Day After director Nicholas Meyer, and “nuclear winter” scientific-spokesperson Carl Sagan. Through popular media, these figures spread criticisms of Reagan’s Cold War initiatives, such as the Strategic Defense Initiative (SDI, or “Star Wars”) and the American nuclear missile deployment in Europe, to millions of Americans. Their efforts not only popularized the nuclear freeze campaign, but also influenced leaders in Australia, New Zealand, and in the Vatican, to question and even reject U.S. policies. In short, antinuclear cultural activism posed a serious threat to Reagan’s Cold War initiatives.
This dissertation utilizes research from presidential libraries, television news archives, and special collections, as well as cultural analysis and contemporary interviews, to reassert cultural activism’s importance in Cold War history. In the 1980s, American mass media became a contested space in which the Reagan administration battled antinuclear cultural activists for American hearts and minds. Archival research reveals that this cultural activism alarmed the White House. Angered at antinuclear activists’ ability to permeate popular culture, the White House developed public affairs strategies to repackage its foreign policy and rebrand Reagan as a peacekeeper. Still, the Reagan administration’s refusal to side publicly with pro-arms buildup groups—such as Daniel Graham’s pro-SDI group “High Frontier”—shows that the White House took these antinuclear warnings seriously. If activists’ efforts ultimately failed to sway a majority of Americans’ views on Reagan, they only failed in the face of a considerable and coordinated White House response. By 1985, the White House had won the media battle, but not before shifting its rhetoric and reconsidering its policies. In 1981, the Reagan administration boasted about prevailing in a nuclear war. In the wake of antinuclear cultural activism, they expressed activists’ belief that a nuclear war can never be won and must never be fought.

Approved: ______________________________________________________________

Chester J. Pach
Associate Professor of History
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ABBREVIATIONS

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<td>ABM</td>
<td>Anti-Ballistic Missile</td>
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<tr>
<td>ASAT</td>
<td>Anti-Satellite Weapon</td>
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<td>BAMBI</td>
<td>Ballistic Missile Boost Intercept</td>
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<td>BMD</td>
<td>Ballistic Missile Defense</td>
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<tr>
<td>CPD</td>
<td>Committee on the Present Danger</td>
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<tr>
<td>ICBM</td>
<td>Intercontinental Ballistic Missile</td>
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<td>IRBM</td>
<td>Intermediate Range Ballistic Missile</td>
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<tr>
<td>MIRV</td>
<td>Multiple Interdisciplinary Reentry Vehicle</td>
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<td>MTV</td>
<td>Music Television</td>
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<td>MX</td>
<td>Missile Experimental</td>
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<td>NATO</td>
<td>North Atlantic Treaty Organization</td>
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<td>NGOs</td>
<td>Non-Governmental Organizations</td>
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<td>National Security Council</td>
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<td>NSDD</td>
<td>National Security Decision Directive</td>
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<td>PSR</td>
<td>Physicians for Social Responsibility</td>
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<td>SALT</td>
<td>Strategic Arms Limitation Treaty</td>
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<td>SDI</td>
<td>Strategic Defense Initiative, also referred to as Star Wars</td>
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<td>SDIO</td>
<td>Strategic Defense Initiative Organization</td>
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<td>SLBM</td>
<td>Submarine Launched Ballistic Missile</td>
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<td>START</td>
<td>Strategic Arms Reduction Treaty</td>
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<td>TTAPS</td>
<td>Acronym for the nuclear winter scientists: Brian Toon, Richard Turco, Thomas Ackerman, James Pollack, and Carl Sagan</td>
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<tr>
<td>UCS</td>
<td>Union of Concerned Scientists</td>
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<td>UKCD</td>
<td>United Kingdom Civil Defense</td>
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<td>WHORM</td>
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CHAPTER 1: INTRODUCTION

In 1984 Random House released the newest work by cherished American author Theodore Geisel. Better known to millions of children as Dr. Seuss, Geisel became famous for his whimsical books *Green Eggs and Ham* and *The Cat in the Hat*, but his 1984 release had more serious overtones. In *The Butter Battle Book*, Geisel told the story of the “Yooks” and the “Zooks,” two tribes warring over ideological differences: the Yooks ate their toast butter side up, while the Zooks consumed it butter-side down. To defend their beliefs, the Yooks and Zooks engage in an ever-escalating arms race. By the story’s end, both sides had developed “Big-Boy Bameroos,” weapons of mass destruction which could wipe out civilization completely. At the book’s conclusion, representatives from each tribe standoff with these tiny but destructive weapons; Geisel left readers to ponder their fate.¹

*The Butter Battle Book* was a timely commentary on the Cold War arms race. During the 1980s, the United States and the Soviet Union were engaged in a furious nuclear arms race that many commentators dubbed “Second Cold War.” The Second Cold War began with the 1979 Soviet invasion of Afghanistan and escalated during Reagan’s first term. Both superpowers increased nuclear tensions, but Reagan’s actions were especially alarming: he re-established civil defense measures, increased America’s nuclear arsenal, expressed hardline anticommunist rhetoric, and proposed a new space-based missile defense system, the Strategic Defense Initiative (SDI). Reagan’s rhetoric and policies combined with a number of events that exacerbated nuclear tensions, including terrorist attacks in Lebanon, the U.S. invasion of Grenada, the Nuclear Freeze

campaign, Carl Sagan’s nuclear winter hypothesis, the shoot down of Korean Airline flight 007, the U.S. deployment of Pershing II missiles into Europe, increasing U.S. covert operations in Soviet occupied Afghanistan, and the NATO military exercise Able Archer ’83. Collectively, these events escalated superpower animosity considerably and brought the world precariously close to nuclear war.\(^2\)

With *The Butter Battle Book*, Geisel provided a thoughtful metaphor for the Second Cold War nuclear arms race. While their politics differed, President Reagan would have appreciated Geisel’s colorful Cold War parable. Like Geisel, Reagan had his own metaphor for the nuclear standoff: two Wild West cowboys with loaded pistols pointed at the other’s head. Both analogies oversimplified a deadly serious military and diplomatic problem, but when faced with a complex and technical arms race—one complicated by game theory strategies, nuclear science, atomic jargon, and global geopolitics—metaphors came in handy. Reagan’s folksy Wild West analogy may have been simplistic, but it captured the suicidal nature of the arms race.\(^3\)

*The Butter Battle Book* is but one example of Second Cold War era antinuclear culture. Antinuclear themes abounded in the early 1980s. From 1981 until 1984, numerous books, films, television programs, pop songs, and television commercials spread antinuclear messages throughout American mass media. This surge of antinuclear


cultural activism aimed to criticize Ronald Reagan’s escalation of the arms race. Reagan’s policies prompted robust grassroots antinuclear protests, most notably the nuclear freeze campaign, and 1980s pop culture followed suit. Antinuclear-themed songs climbed pop radio charts, atomic imagery influenced music videos, nuclear war films depicted the apocalypse, and books—even children’s books like Dr. Seuss’s *Butter Battle Book*—warned about the dangers of nuclear proliferation.

As antinuclear messages flooded American popular culture, pro-arms race advocates responded. Hawkish groups, such as Daniel Graham’s “High Frontier” organization, supported Reagan’s Strategic Defense Initiative (SDI). Pro-administration commentators attacked Carl Sagan and his nuclear winter hypothesis. The White House itself took considerable action. In response to antinuclear cultural activism, and eyeing reelection in 1984, White House officials struggled to rebrand Reagan as a peacekeeper, not the hardliner of his 1980 campaign. After Reagan’s reelection, American atomic anxiety abated, lessening atomic culture’s impact; still, early 1980s antinuclear cultural activism mattered. During Reagan’s first term, American mass media became a contested space in which pro-arms race advocates and antinuclear activists battled for American hearts and minds. Each side was attempting to sell its own vision of how the Second Cold War would end.

Numerous works on the 1980s downplay the decade’s increased levels of American atomic anxiety. Some studies of 1980s life and culture are politically biased; they aim to memorialize, or to vilify, Reagan. Others seek causal relationships between the Reagan presidency and the end of the Cold War. Both approaches frequently gloss over 1980s atomic anxiety as an unimportant factor in Reagan’s implementation of
superpower diplomacy. In an attempt to avoid these pitfalls, this dissertation combines archival research with contemporary interviews and cultural analysis. Through this combination of research methods, the efforts of 1980s antinuclear cultural activists become clear. Disarmament activists with access to American mass media, or those who pushed for arms control in popular culture, had clear political goals. They attempted to persuade Americans that Reagan’s arms buildup was dangerous. Antinuclear cultural activism posed a serious threat to the White House, and forced administration officials to engage in counter-media campaigns, publicly address nuclear concerns, and reconsider its bellicose Cold War rhetoric.

**Love Him or Hate Him: Reagan Era Historiography**

In their search to understand America’s fortieth president, Reagan-era historians have largely been divided into two groups: sympathizers and critics. The most vociferous Reagan proponents, the so-called “Reagan Victory School,” view America’s fortieth president as a visionary who engaged in economic, political, and diplomatic warfare to bankrupt the Soviet Union and win the Cold War. At the other end of this continuum are scholars who critique Reagan’s actions as wasteful steps that prolonged the Cold War, drove up federal deficits, and made American politics more divisive. In between these two extremes, scholars who take a sober and balanced approach in assessing Reagan discover an active and imaginative executive who frequently delegated responsibility, but who also made important decisions that guided a pragmatic foreign policy. Regardless of the camp in which they reside, most Americans—even Democratic President Barack
Obama—uphold Reagan as a “transformative president” who ushered in a new era of conservative politics. Love him or hate him, Americans continue to reckon with Reagan.4

In addition to presidential histories, an increasing number of works have emerged on the 1980s antinuclear movement. Much scholarly attention focuses on the nuclear freeze campaign. What began as a series of New England town-hall meetings soon became the largest antinuclear movement in American history. Comprised largely of middle-class Americans, nuclear freeze advocates endorsed a simple approach to arms control: stop building and deploying nuclear weapons. It was an idea with great appeal. In 1982, an estimated one-million activists rallied in New York City to endorse a freeze of nuclear weapons—the largest peace protest in American history. Yet when freeze legislation entered Congress, it failed to alter the course of arms control policies. Since the freeze campaign, numerous political and congressional historians have examined the movement’s impact. The most prolific of these freeze historians, Lawrence Wittner, views nuclear freeze members as heroic citizens who struggled to stop nuclear war as the Reagan administration led America towards global annihilation.5

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Another group of scholars are consumed with answering one question: What factors led to the end of the Cold War? In the post-Cold War world, some historians interpret Reagan’s early speeches as rhetoric designed to discredit the Soviet Union. Armed with archival documents and the benefit of hindsight, these scholars assure readers that while he talked tough, Reagan was willing to negotiate with the Soviets; in other words, there was seldom any real threat of nuclear war. For example, in Strategies of Containment, historian John Lewis Gaddis assesses Reagan’s “Evil Empire” speech, in which Reagan called the Soviet Union the focus of evil in the modern world, as a calculated method of “psychological warfare” against the Soviets. According to Gaddis, while “it soon became clear that in ideology and propaganda Reagan [was]…far more threatening” than his predecessors, privately Reagan “had never ruled out the possibility of negotiations with Moscow.” Even before this “Evil Empire” speech, Reagan informed his Secretary of State George Shultz that “he wanted to begin talking to the Russians” despite reservations of many cabinet members. Gaddis’s appraisal is astute and likely correct, but it also downplays the seriousness of early 1980s superpower diplomatic relations. Any number of factors could have led to an accidental nuclear exchange. Put simply, when viewed from the archives, Reagan can come across as an executive who hated nuclear war and who smartly pushed the Soviets towards concessions and ultimately capitulation.6

Whether or not Reagan was open to arms negotiations, engaged in economic and psychological warfare that suffocated the Soviet economy, or “won” the Cold War face of the nuclear freeze, see Christian P. Peterson, Ronald Reagan and Public AntiNuclear Sentiment: Hopes, Dreams, and Nuclear Bombs (Thesis, Utah State University, 2001).

remain important questions for historians, yet these issues mattered little to Americans living through Reagan’s first term. In the search for causal relationships between Reagan’s presidency and the end of the Cold War, diplomatic historians fixate on interviews from sympathetic Reagan administration officials and archival materials; conversely, social historians critical of Reagan often rely on interviews with former protestors and grassroots campaign archives. Neither set of sources accurately represent the fears of average, non-protesting Americans.  

American atomic anxiety cannot be ascertained through archival research alone; when it comes to gauging nuclear fear, popular culture matters. Most Americans never participated in antinuclear demonstrations, yet cultural examples, including literary bestseller lists, box office reports, pop music charts, and Nielsen television ratings, suggest that Americans were genuinely afraid of nuclear war. They read literature, watched films, listened to pop music, and followed televised debates focused on nuclear war. Put simply, in the early 1980s the nuclear threat was real, intense, and immediate. Regardless of what the archives suggest about Reagan’s private intentions, in the early 1980s Americans really believed that nuclear war was possible, and many sought ways to prevent it from happening.

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Second Cold War Atomic Anxiety

The 1980s marked the final fluctuation of Cold War American atomic anxiety. For decades, atomic weaponry influenced American culture, yet examinations of the bomb’s effects on American culture remain scant. As Paul Boyer noted in his 1985 book *By the Bomb’s Early Light*, “If a scholar a thousand years from now had no evidence about [the atomic threat] except the books produced by the cultural and intellectual historians of that era, he or she would hardly guess that…nuclear weapons existed.” In addition to Boyer’s contribution to the study of 1950s atomic culture, a few other important works have helped to fill this gap. Allan Winkler’s *Life Under a Cloud* reveals the connections between nuclear fear and atomic activism throughout the Cold War. The edited collection *Atomic Culture: How We Learned to Stop Worrying and Love the Bomb* analyzes the bomb’s influence on Cold War culture. Spencer Weart’s *Nuclear Fear* shows that from the 1950s until the 1980s American culture misrepresented the atom. Instead of accurately conveying the dangers of radioactivity, atomic culture suggested that the atom held mythical, transformative properties that could mutate insects, arthropods, lizards, and even people, into large destructive creatures that, ironically, could only be stopped with more atomic power. Cold War politicians preyed upon these popular misunderstandings for their own political gain.8

While these works reveal much about early Cold War atomic culture, 1980s nuclear fear was different from earlier decades. In 1950s country singers crooned about

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“Old Man Atom” while sci-fi films depicted giant, radioactive ants or fifty-foot tall women. After the 1962 Cuban Missile Crisis, flippant nuclear tropes gave way for more absurdist and sardonic commentaries on the nuclear standoff. The most notable of these examples remains Stanley Kubrick’s landmark film *Dr. Strangelove: Or How I Learned to Stop Worrying and Love the Bomb*. Although protests against nuclear weapons continued in these years, 1960s activism largely focused on the Vietnam War and domestic issues of civil rights, feminism, and Watergate. From 1963 until 1979, atomic activism abated, and seldom did even quasi-serious atomic themes permeate pop culture.9

In the Reagan Era, however, atomic culture assumed a new, serious, and political tone. Antinuclear books, films, songs, and commercials no longer used the apocalypse to entertain, but to inform the public on the dangers of nuclear war. This was pop culture with a purpose—to undermine President Reagan and persuade Americans to join the antinuclear movement. In representing nuclear war accurately, 1980s antinuclear pop culture sought to frighten people into activism.10

Antinuclear cultural activism was substantial, and reached an even larger audience than the grassroots efforts of the nuclear freeze campaign. For a comparison, the nuclear freeze campaign garnered a million person turnout at its June 1982 New York City protest. Historians cite this rally as the largest antinuclear protest in American

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9 According to atomic historians Scott C. Zeman and Michael A. Amundson, early Cold War atomic culture was markedly different from later periods. From 1945 until 1963—the periods of “Early” and “High” Atomic Culture, respectively—cultural representations about the atom were mostly glib examples to be found in works of science fiction and fantasy. Scott C. Zeman and Michael A. Amundson, eds. Atomic Culture: How We Learned to Stop Worrying and Love the Bomb (Denver: University of Colorado Press, 2004), 1-9.

history; yet, an estimated *one hundred million* viewers tuned in to view the antinuclear film *The Day After*. As Bob Dylan and Joan Baez sang protest songs to participants of the New York City rally, millions of American youths watched antinuclear-themed videos on the decade’s newest hit cable station, MTV. Grassroots antinuclear groups may have circulated numerous propaganda pamphlets, but Jonathan Schell’s antinuclear book *Fate of the Earth* reached the *New York Times* top ten list. Carl Sagan’s “nuclear winter” campaign reached an estimated eighty million readers in *Parade* magazine alone, and he popularized the theory on network television. For Americans not involved in the nuclear freeze campaign—even Americans who ignored newspapers, magazines, or network television news programs—antinuclear cultural activism was almost impossible to avoid.

Some scholars downplay antinuclear culture’s influence on public opinion. For example, although the film *The Day After* was one of the most widely watched events in television history, polls taken after it aired suggested that the film did little to sway Americans’ opinions about nuclear war. Carl Sagan’s nuclear winter campaign, which used the mantle of science to argue that the arms race should end immediately, also failed to seriously alter arms control debates. Criticisms that early 1980s antinuclear culture was ineffective in shaping public opinions are shortsighted. Recently declassified White House documents suggest that the Reagan administration took antinuclear popular culture quite seriously. If antinuclear culture failed to change fundamental public perceptions of the arms race, that failure came only in the face of White House efforts to contain these messages. In short, if historians are to take government archival materials seriously, then they also need to take 1980s antinuclear pop culture seriously.
Antinuclear cultural activists and the White House competed to sell different visions of how the Second Cold War should end. For antinuclear cultural activists, that vision was one of nuclear war and global apocalypse, and the horrors of nuclear war were central to their fear-based propaganda. For the White House, that vision was an aggressive Cold War foreign policy that stood strong against the Soviet threat. There were shortcomings in both approaches. Activists’ apocalyptic themes were frequently too depressing for sustained popularity; conversely, Reagan administration officials’ bellicose rhetoric did little to calm nervous Americans. This media war led the Reagan administration to change its message and temper its rhetoric. By the end of 1983, the White House abandoned its hardline rhetoric and publicly endorsed a vision of “peace through strength.” Reagan and administration officials continually asserted that nuclear war “cannot be won and must never be fought.” Antinuclear cultural activism pressured the White House to rethink its message, rebrand its president, and ultimately reconsider the arms race.

Chapter Organization

Criticisms of Reagan’s arms buildup came from numerous cultural mediums. At times, these attacks were prolonged, lasting months or even years. In other cases, the media frenzy over antinuclear films, such as The Day After, or books, such as Fate of the Earth, was short-lived. For this reason, there is some chronological overlap between chapters; regardless, this dissertation is organized chronologically, with the earliest examples of politically charged antinuclear cultural propaganda covered in the earliest chapters and later examples in the concluding chapters. It begins with an overview of the events that led to this new apex of American atomic anxiety. Chapter 2, “The Rise of
Reagan and the Second Cold War,” traces the events that led to the end of détente and the Reagan’s rise to the presidency. Reagan was not the sole instigator of nuclear tensions; the Soviet Union contributed to global nuclear fears, as did Reagan’s administration officials and outside events, such as the Three Mile Island nuclear catastrophe. When compared to détente-era calls for superpower co-existence, however, Reagan’s rhetoric and policies seemed all the more bellicose.

Chapter 3, entitled “Antinuclear Paperbacks and the Peaceful Offensive,” shows that authors and book publishers engaged in a unique form of antinuclear activism in which they sold disarmament in the American literary marketplace. Publishers recognized the business risks of pushing pro-disarmament nonfiction, but still promoted these books out of political convictions. Alarmed, the White House undertook its own publishing project to present an alternative to books like *Fate of the Earth* and *Nuclear War: What’s in it for You?*. Chapter 4 shows how in the 1980s even Music Television (MTV) became a forum for antinuclear cultural activism. British musicians used MTV to spread antinuclear songs and videos to American audiences. These pop artists were responding to the “Euromissile” crisis, in which Reagan approved the deployment of U.S. nuclear missiles to Great Britain to offset Soviet intermediate-range ballistic missiles in Eastern Europe. In response, pop musicians created songs and videos that attacked Reagan, not British Prime Minister Margaret Thatcher. These music videos remain an important element of early 1980s antinuclear cultural activism. They show how British pop stars created a unique form of transnational pop protest music viewed by millions of Americans via MTV.
Chapter 5, “Selling ‘Star Wars’ in American Mass Media,” examines Reagan’s controversial “Strategic Defense Initiative” or SDI. It details the media battle between non-government organizations who, though television programs and commercials, shaped public perceptions of Reagan’s plan. Ultimately, these competing visions of “Star Wars” shaped the White House’s own SDI propaganda campaign. Chapter 6 examines *The Day After*, an antinuclear film promoted as a two-hour “public service announcement” about the dangers of the arms race. The story of *The Day After* and the media event it sparked reveals that the White House took great care to contain the film’s critical message. The next two chapters focus on Carl Sagan and the scientific hypothesis of nuclear winter. In 1983 Carl Sagan, the best known scientific personality of his generation, undertook a bold campaign to promote disarmament. As the primary spokesperson for a new scientific theory, “nuclear winter,” Sagan promoted the dangers of the arms buildup in American mass media in ways that no other scientist could. Chapter 7, entitled “Carl Sagan and the Creation of Nuclear Winter,” examines the cultural influences on Sagan’s thinking, and shows that there were numerous examples of nuclear winter-like phenomena in American culture. Chapter 8, entitled “Selling Nuclear Winter and Spreading Scientific Doubt,” shows that in his efforts to promote nuclear winter to Americans through mass media, Sagan engaged in a devil’s bargain in which he traded publicity for credibility. Early efforts to discredit Sagan’s science paved the way for future criticisms of later controversial scientific theories, such as global warming. Chapter 9 concludes the dissertation’s and shows that 1980s antinuclear cultural activism has contemporary relevance.
The 1980s were a decade in which nuclear fear and mass media combined in new and innovative ways. In response to the Reagan administration’s arms buildup, protests occurred not just in the streets or in town halls, but in American culture. From films to books to music videos, antinuclear cultural activists attempted to sell their vision of Second Cold War devastation and shape political opinion. In the face of White House counter efforts, this struggle became all the more difficult; yet their story remains important. This dissertation suggests that antinuclear cultural activist, in their media war with the White House, did in fact influence the course of the Second Cold War. The proved to Reagan administration officials that the public would no longer support dangerous arms buildup policies, and that Americans preferred arms control agreements to nuclear saber rattling. Peace proved to be far too popular a message to ignore.
CHAPTER 2: THE RISE OF REAGAN AND THE SECOND COLD WAR

The March 29, 1982, cover of *Time* featured a disquieting image: a billowing mushroom cloud adorned with a sinister face. *Time’s* headline story, “Thinking about the Unthinkable,” examined the rising levels of nuclear fear in America. The article’s author, James Kelly, noted that as of March 1982 “from the halls of Congress to Vermont hamlets to the posh living rooms of Beverly Hills, Americans are not only thinking about the unthinkable, they are opening a national dialog on ways to control and reduce the awesome and frightening nuclear arsenals of the superpowers.” Much of that dialog revolved around the call for a nuclear freeze. By early 1982, the nuclear freeze campaign had grown in popularity because it offered a simple solution to an arms race spiraling out of control—an immediate bi-lateral freeze on the production and deployment of nuclear weapons. It was an idea with broad popular appeal. *Time’s* headline story and provocative image reflect the fears of Reagan’s first term, a period in which Americans considered nuclear war to be a very real possibility. Yet, only a decade earlier, arms limitation treaties and an improved relationship with the Soviet Union had reduced global fears of nuclear warfare. How, then, had fears of global nuclear war re-escalated so precipitously in only a decade?¹¹

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Throughout the Cold War, atomic anxiety ebbed and flowed. Many remember the October 1962 Cuban Missile Crisis as the apex of Cold War nuclear fear. Yet, the early 1980s constitute the most public and longest-sustained period of atomic anxiety, and antinuclear activism, in American history. This chapter traces, in three sections, the reasons why nuclear fear peaked during Reagan’s first term. The first section recaps steps taken after the Cuban Missile Crisis to stabilize the global nuclear arms race. This period of improved relations between the superpowers, détente, proved to be short lived. As vociferous anticommunist hardliners worked to dismantle and discredit détente in the mid-1970s, they helped pave the way for Reagan’s presidency. As the 1980s approached, events such as the 1979 Soviet invasion of Afghanistan supported hardliners’ accusations that communists sought world domination. The third section reveals how Reagan’s
rhetoric and defense initiatives appeared to many Americans as rigid, uncompromising, and dangerous provocations in a nuclear world. Reagan’s rhetoric and actions may not have been grand departures from previous Cold War presidents, but for citizens accustomed to the accommodating rhetoric of détente, such saber rattling rekindled Cold War fear. Reagan’s administration officials and their rhetoric instigated an antinuclear response unmatched in American history. In short, the early 1980s marked the return of extreme American nuclear fear.

**Détente and Hopes for Nuclear Stability**

The 1962 Cuban Missile Crisis prompted the first serious superpower efforts to curtail global nuclear proliferation. For thirteen nervous days in October 1962, the United States and the Soviet Union came perilously close to nuclear war. After the standoff, John F. Kennedy and Nikita Khrushchev, and their successors, worked to mitigate nuclear tensions. The 1963 Limited Test Ban Treaty reduced the risks of spreading above ground radioactivity. New and improved lines of communication between the Kremlin and the White House promised to avert future standoffs. The superpowers agreed to contain global nuclear proliferation. These steps showed how American and Soviet leaders sought ways to wage Cold War without risking global nuclear annihilation. After these steps, global atomic anxiety abated.\(^{12}\)

As the United States waged Cold War by conventional means, domestic unrest began to rise. In a decade marked by civil unrest, racial strife, and political struggles for equality, no issue more consumed American politics during the 1960s than U.S. military involvement in Vietnam. What began as limited levels of military support for South

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Vietnam had by the mid 1960s led to thousands of U.S. causalities. The 1968 Tet Offensive confirmed for President Lyndon B. Johnson that the United States was far from achieving any sort of lasting or meaningful victory in Vietnam. Faced with growing protests in the streets and criticisms on television, Johnson declined to run for re-election, thereby setting the stage for the political resurgence of Richard Nixon.13 Nixon’s 1968 ascent to the presidency, and his selection of Henry Kissinger as National Security Advisor, paved the way for a period of Cold War diplomatic relations known as détente. Détente marked a new, realist approach to superpower relations that emphasized co-existence with the Soviet Union. Détente was complex, but essentially Kissinger’s strategy emphasized rebalancing global power and reducing the risk of nuclear war. While détente did not signal an end to Cold War hostilities, it did lead to new nuclear treaties, limits on nuclear weapons, and anti-nuclear missile system negotiations. Limiting nuclear proliferation became a centerpiece of Nixon and Kissinger’s foreign policy.14

Much has been made of the strange relationship between Nixon and his unlikely partner in diplomacy, but in the context of shifting approaches to the nuclear threat, Kissinger takes primary importance. Kissinger and his family fled Nazi Germany in 1938. Following a meteoric rise in academia at Harvard, his 1958 work *Nuclear Weapons*

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and Foreign Policy proved Kissinger’s capacity to conceptualize nuclear strategy. A student of history, Kissinger admired the great statesmen of nineteenth-century Europe. He sought to rebalance twentieth-century geopolitics in a similar fashion. In short, Kissinger hoped to shift the Cold War away from a bi-polar, Manichean struggle and toward a more balanced geopolitical reality. Kissinger’s background in grand strategy and nuclear weaponry led him to conclude that America lacked a clear conception of strategic goals. He believed that American diplomacy needed a new guiding philosophy, and that détente would provide a promising new Cold War philosophical framework.15

Central to Kissinger’s conception of détente, indeed his entire worldview, was his preference for diplomatic realism over idealism. If foreign policy idealists stressed the need for universal human rights and political democracy, Kissinger’s realist outlook accepted differences in national values, politics, and ideology. He rejected idealists’ calls for universal democracy in favor of stability. This realist preference dominated Kissinger’s approach to nuclear strategy. For Kissinger, ever-increasing nuclear weapon arsenals would not produce political change, and stability would never be achieved through the pursuit of global hegemonic power. Instead, Kissinger sought a shared balance of power. Domestic and diplomatic strains resulting from the U.S. military presence in South East Asia demanded that the United States recalculate its commitments abroad and work to negotiate with the Soviets.16

Kissinger also believed that the arms race had strained both U.S. and Soviet economies. In part to quiet domestic unrest, and in part to improve superpower

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16 Ibid., 275-286.
diplomatic relations, Kissinger worked to limit the superpowers’ nuclear arsenals. He rejected the idea that the United States needed superior nuclear numbers. Instead, Kissinger sought only nuclear “sufficiency,” or parity with the Soviets. In lockstep with Kissinger’s preference for parity, as early as 1969 President Nixon had announced his desire to limit nuclear arsenals. Since the Cuban Missile Crisis, the Soviets had worked hard to diversify and improve their nuclear arsenal. They boosted the destructive power of their nuclear warheads, increased their total numbers of intercontinental ballistic missiles (ICBMs), and began work on an anti-ballistic missile system (ABM). In response, the Johnson administration bolstered their submarine-launched ballistic missile (SLBM) program, continued work on multiple interdisciplinary reentry vehicles (MIRVs), and proposed its own ABM system. Nixon recognized that this buildup might destabilize the global balance of power. He tasked Kissinger to bring about a new “stable deterrence” with the Soviets.

A milestone in attaining this limited level of sufficiency came in 1972 with the Strategic Arms Limitation Talks (SALT). The SALT treaty restrained each nation’s nuclear program and limited the superpowers’ production and placement of ABM systems. After nearly thirty months of Kissinger’s back-channel diplomacy, improved diplomatic relations with communist China, and numerous domestic upheavals at home,

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Nixon signed the SALT treaty in Moscow on May 26, 1972. SALT suggested that both superpowers were working towards limiting the nuclear threat.\(^{19}\)

Was détente a successful or even wise foreign policy? Scholars remain divided on the subject. Détente did not usher in an end of Cold War competition, nor did it signal any real halt in the arms race. It certainly did not quiet the domestic protests that plagued Nixon’s presidency. As Americans learned of Nixon’s covert bombing and invasion of Cambodia, student protests surged throughout the nation. In 1970, the National Guard fired upon students at Kent State University, killing four and wounding many others. Opposition to the Vietnam War grew even as Nixon implemented his strategy of Vietnamization, or a gradual transfer of military responsibility from American soldiers to the South Vietnamese. Nixon’s goal of squashing civil chaos and ushering in domestic stability reached its ultimate failure with the Watergate scandal. For many Americans, Watergate led to a distrust of their federal government; for Nixon, it led to a disgraceful resignation and a reputation forever tarnished by questionable actions.\(^{20}\)

Whatever détente’s shortcomings, Nixon and Kissinger succeeded in decreasing levels of global atomic anxiety. American antiwar protests continued, but the early 1970s marked a nadir for antinuclear activism. Consumed with the more immediate cause of Vietnam abroad, concerned over domestic protests at home, and assured by SALT, disarmament took a backseat to more pressing political issues. Lawrence Wittner, the preeminent scholar of the antinuclear movement, notes that “during the early 1970s,\


nuclear weapons went largely unnoticed” and that “in contrast to earlier upsurges of public concern and antinuclear activism... there was relatively little popular protest against nuclear weapons in the 1970s.”

This nadir of Cold War nuclear unrest would not last. By the mid 1970s ardent anticommunists within the United States began to argue for a more ideologically stringent foreign policy, one that would combat communism more forcefully. As the decade progressed, these voices became louder. Numerous intellectuals and policymakers called for an increase in America’s nuclear arsenal. As hardliners dissented against détente, American atomic anxiety began to rise. A small but vocal group of intellectuals, the neoconservatives, would rise to reshape American foreign policy. In the early 1980s, the “neocons” influenced presidents and policymakers to usher in the Second Cold War.

**The Rise of the Hawks**

The neoconservatives were a diverse group of anticommunists comprised of former Trotskyites, disillusioned Democrats, and New York-based Jewish and Catholic intellectuals. Despite their diverse backgrounds, most neoconservatives detested détente and favored an aggressive approach to foreign relations that emphasized military power, universal human rights, and democracy. Put simply, neoconservatives sought to put morality back into foreign policy. Some neoconservatives, such as Irving Kristol, urged that Americans have faith in free markets and use the morality of religion to guide foreign policy. Others, such as Norman Podhoretz, argued that American military involvement in Vietnam was a just and moral cause. For some Americans, who in the

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1970s were struggling with economic inflation and a post-Vietnam post-Watergate malaise, these ideas held a powerful appeal; yet the neoconservatives exerted far more influence in intellectual and policy circles than with the general public. Throughout the 1970s, the neo-cons renewed calls for hardline anticommunism.22

Neoconservatives found a congressional leader who shared their foreign policy ideals in Senator Henry “Scoop” Jackson (D-WA). Like many neo-cons, Jackson believed that the lessons of World War II—and especially the atrocities of Nazi holocaust camps—proved the need for America to stand strong against totalitarian governments. By the 1970s, disillusioned with détente, Senator Jackson accused the Nixon administration of weakening American defenses against the Soviets. The SALT treaty may have limited both superpowers’ nuclear arsenals, but in the eyes of Jackson and other neo-cons it allowed the Soviets to catch up in other areas of atomic weaponry; in other words, SALT had weakened America. As the SALT treaty entered the Senate for consideration, Jackson called for an amendment that would prohibit future limitations on U.S. nuclear arsenals. Jackson’s arguments resonated with neoconservatives, nuclear hawks, and anticommunists alike.23

By the mid 1970s, neoconservative arguments against détente were growing in popularity, and when Gerald Ford assumed the presidency he reshuffled his cabinet to include numerous hardline anticommunists. Ford made Kissinger his Secretary of State, appointed George H.W. Bush Central Intelligence Agency director, promoted Donald

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Rumsfeld to Secretary of Defense, and confirmed as his new chief of staff Richard B. Cheney. Rumsfeld and Cheney especially hated détente and sought reasons to re-escalate the arms race. Their opportunity came when, in November 1975, Bush allowed an outside group of neoconservatives to challenge CIA estimates of the Soviet military threat. Christened “Team B,” this group accused the CIA of gravely underestimating not only the Soviet’s military capacity, but also their intentions.  

Team B members included ideologically-driven academics and intellectuals. Some were atomic scientists, others were scholars, but all members of Team B were rigid anticommunists, and none of them were CIA-trained analysts. The figure that best represents Team B is Richard Pipes. A Harvard historian of the Soviet Union, Pipes was an unabashed critic of former Secretary of Defense Robert S. McNamara, Kissinger, or anyone else he believed was curtailing America’s nuclear deterrent capabilities. Pipes hated détente. He believed that many U.S. policymakers were fools to trust that the Soviets shared the same goals as their American counterparts. Pipes asserted that the Soviets would never settle for military or economic sufficiency; instead, they would perpetually strive for global domination. Therefore, détente was flawed because it assumed that the superpowers shared a hope of avoiding nuclear war. Team B, led by Pipes, accused CIA analysts of being “untested, inexperienced, and naïve” in believing that the Soviets would not launch a nuclear first strike. For Team B, the Soviets remained “first and foremost offensively rather than defensively minded. They think not in terms of nuclear stability, mutually assured destruction, or strategic sufficiency, but of an effective

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24 Ibid., 118-121.
war-fighting capability.” The Soviets were actively preparing to fight and win a nuclear war, and America needed to redouble its efforts to deter an attack.25

Team B’s conclusions rehashed early Cold War containment policies, notably National Security Council Report-68 (NSC-68), a critical assessment of Soviet intentions that had advocated the United States pursue a strategy of containment. Both Team B’s report and NSC-68 compared the Soviet buildup with Hitler’s military buildup of the 1930s. Both reports stressed the need to contain communism and check Soviet aggression; and both reports included the input of Paul Nitze. A nuclear hawk and ardent anticommunist, Nitze sought in the 1970s the same goal he pursued twenty years earlier: an aggressive anticommunist foreign policy that could meet the Soviet threat anywhere, anytime. Nitze, like Pipes and other members of Team B, warned that within ten years the Soviets would achieve the ability to deliver a crippling first strike against the United States. For Nitze, if Kissinger’s détente policies sought to balance global power, they had failed miserably. The Soviets were gaining the nuclear upper hand.26

To reassert an American foreign policy reminiscent of NSC-68, Nitze organized a group of Cold War hawks, including atomic scientist Edward Teller, former Yale Law School dean Eugene Rostow, and computer printer magnate David Packard (of Hewlett-Packard), to spread Team B’s warnings in policy circles and to the public. Formed on November 11, 1976, the “Committee on the Present Danger” borrowed its name from a 1950s anticommunist group. From 1976 to 1984, the CPD published over twenty articles


warning the public and policymakers of the growing Soviet threat. Perhaps the most notable of these articles was Pipes’s *Commentary* piece entitled “Why the Soviet Union Thinks It Could Fight and Win a Nuclear War.” Similar calls from other neoconservatives, Team B, and the CPD all conveyed the same message: détente was a dangerous policy. Not only had it legitimized an amoral Soviet empire, it also allowed communist expansion that threatened America.  

Although the neoconservative message was gaining momentum, in 1976 Republican Gerald Ford lost the presidential election to Democrat Jimmy Carter, thereby temporarily diminishing the CPD’s hopes for a renewed military buildup against the Soviet Union. Unlike the CPD, Carter did not immediately believe that “Soviet expansion was almost inevitable” and as president he sought nuclear stability. For skeptical neoconservatives, however, the Carter appeared to be dangerously naïve about the Soviets.  

Yet even as he sought to work with the Soviet Union, Carter rejected détente on moral grounds. A foreign policy idealist and a deeply religious man, Carter assumed an approach to diplomacy that emphasized human rights—his early diplomatic initiatives included cutting economic aid to some nations that violated basic human rights standards. Carter even proclaimed that a primary goal of his presidency would be the “elimination

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of all nuclear weapons from this earth.” These calls for nuclear abolitionism, combined with Carter’s efforts to cede control of the Panama Canal to Panama, infuriated neoconservatives.²⁹

Carter’s hopes for a new SALT treaty also concerned anticommunist hawks and members of the CPD. Carter and Soviet leader Leonid Brezhnev, despite disagreements about human rights, had worked for years toward a new SALT agreement. They finally signed SALT II on June 18, 1979. As SALT II went to the Senate for ratification, Senator Henry Jackson and the CPD voiced their distrust of Soviet intentions. They believed that SALT II was “unfavorable” to the United States on the grounds that it curtailed U.S. missile developments and provided the Soviets with a strategic advantage. Enraged, Richard Pipes published an article arguing that the Soviet Union wanted to be able to “absorb an American first strike and then retaliate with an overwhelming force.”³⁰ Such public assaults would make SALT II a difficult sell in Congress, and Carter knew it.

Carter capitulated. He agreed to build up current U.S. nuclear arsenals and even approved the development of the neutron bomb, a weapon with a reduced blast force but increased levels of deadly radiation. The neutron bomb decision proved especially provocative. This weapon would be more suitable for an Eastern European nuclear exchange because it would leave infrastructure intact. Carter later canceled its development, for a time discussions of the neutron or “death ray” bomb engrossed Americans. Carter also approved development of the MX missile, an ICBM with multiple


warhead technology. In early December 1979, Carter agreed to North Atlantic Treaty Organization (NATO) calls to deploy Pershing II intermediate-range nuclear missiles into Europe by 1983. In part, Carter’s increasing wariness of Soviet intentions can be attributed to his National Security Advisor, Zbigniew Brzezinski. Nevertheless, these actions show the extent to which Team B, CPD, and hard-line neoconservative influence had reached by the late 1970s. While neo-cons continued to make claims about Carter’s reluctance to confront the Soviets, the thirty-ninth president had already taken numerous steps to bolster the U.S. nuclear arsenal.\footnote{Patterson, \textit{Restless Giant}, 122-123; Scott Zeman, “Confronting the ‘Capitalist Bomb’: The Neutron Bomb and American Culture” in Scott Zeman and Michael Amundson (eds.), \textit{Atomic Culture: How We Learned to Stop Worrying and Love the Bomb} (Boulder: University of Colorado Press, 2004), 70.}

In late December 1979, in an action that alarmed and shocked the world, the Soviet Union invaded Afghanistan. For neoconservatives, this invasion confirmed their suspicions about Soviets intentions. Carter’s response to the invasion was sharp and decisive. He halted a number of technological exchanges with the Soviets, withdrew the U.S. Olympic team from the 1980 summer games in Moscow, and removed the SALT-II treaty from Senate consideration. With rhetoric reminiscent of the CPD or neoconservatives, Carter proclaimed that the Soviets constituted the greatest threat to world peace since the Second World War. The “Carter Doctrine” asserted that any Soviet attempt to control the oil-rich Persian Gulf region would be considered a threat to U.S. vital interests; in short, an attack on Middle Eastern oil fields could bring about war. In addition to the Soviet invasion, other issues—such as economic stagflation, concerns over energy consumption, and a hostage crisis in Iran—hurt Carter’s chances for reelection. With an election fast approaching, neoconservatives, evangelicals, and more
traditional conservatives threw their support behind Carter’s opponent: the former actor, television host, California Governor, and CPD member, Ronald Reagan.\textsuperscript{32}

Neoconservatives rallied around Reagan in the mid-1970s, but they had long been looking for the right presidential hopeful. Many anticommunists initially supported Barry Goldwater in 1964, but his rhetoric proved too caustic to maintain broad support in a presidential run, as did the speeches of Henry “Scoop” Jackson in the 1970s. What neoconservatives and hardliners needed was a soft-seller, a politician who shared their anticommunist fervor but with broad appeal. Enter Ronald Reagan. By the mid-1970s, Reagan was already a leading member of the CPD. He heeded Team B’s warnings about the growing Soviet nuclear threat, but Reagan framed complex foreign policy debates in simple, accessible, and moral terms. Reagan saw the world much the same way neoconservatives did: in shades of black and white, good and bad, right and wrong; yet Reagan delivered his anticommunism with a positive spin. Reagan’s unwavering optimism, his unshakeable faith in the free market, and his promise to restore U.S. military might reassured many Americans who, in 1980, elected Reagan president.\textsuperscript{33}

Reagan appointed thirty-one CPD and Team B members to his administration, including Jeane Kirkpatrick (U.N. ambassador); William Casey (CIA director); Eugene Rostow (Arms Control and Disarmament Agency director); Richard Pipes (National Security Council advisor); and Richard Allen (National Security Advisor). Reagan would also maintain a close relationship with Edward Teller, a Team B analyst and proponent of

\textsuperscript{32} Patterson, \textit{Restless Giant}, 123; Tyroler (ed), \textit{Alerting America}, 170-177.

all things nuclear. With this lineup solidified, neoconservatives would no longer simply be writing about White House policy, but shaping it. Reagan administration rhetoric and policies led pundits to remark that American was now engaged in a “Second Cold War.”

**The Reagan Presidency and the Second Cold War**

Arguably, Reagan was more prepared to play president than any previous role. As historian Daniel T. Rodgers summarized, Reagan “was virtually the last American president of the Cold War and the one whose career had been most shaped by its massive impress on politics and culture.”

Born February 6, 1911, Reagan grew up as a solid student with a typical Midwestern boyhood. In his teens, young “Dutch” Reagan was an athlete and summer lifeguard. He later attended Eureka College in his home state of Illinois, where he majored in economics. Reagan’s roles in college plays and later experiences as a radio announcer led him to pursue an acting career. In Hollywood, he achieved moderate success, and soon became the head of the Screen Actors Guild. It is during the 1950s that Reagan’s political beliefs shifted from a New Deal Democrat to a Cold War anticommunist Republican.

Most Americans became well-acquainted with Reagan during his run as host of TV’s popular *General Electric Theater*. Reagan’s role as G.E. spokesperson required him

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to tour the country, and these speaking engagements further prepared him for a career in politics. In 1964, supporting Republican Presidential candidate Barry Goldwater, Reagan inspired many conservatives with “the speech,” a well-crafted oratory that preached a faith in American democracy and free markets. Goldwater lost in a landslide to Lyndon B. Johnson, but Reagan’s political career was just beginning. In 1967, he became governor of California, and after two terms ran for president. Throughout these years Reagan’s anticommunism became crystal clear. In his 1976 campaign, Reagan had a strong showing, but lost the Republican nomination to incumbent Gerald Ford. By 1980, Reagan’s time had come; he defeated Jimmy Carter to become the fortieth president of the United States. 36

Reagan won the 1980 election in part because he represented a genuinely anticommunist candidate who promised to stand strong against the Soviets. This hard-line persona was genuine; by 1980 Reagan had been espousing anticommunist rhetoric for decades. His hatred of communism formed in the 1940s, an era of moral absolutes in which America was fighting the good fight. Reagan’s core beliefs never strayed from a firm faith in the righteousness of American markets and democracy. To Reagan, the Cold War was a moral struggle, pure and simple. He believed in the purity of American Cold War actions, and even once remarked that had the Soviet Union not been “engaged in this game of dominoes, there wouldn’t be any hot spots in the world.” Such ideological clarity fit in nicely with Team B assertions that the Soviets alone had engaged in “the biggest military buildup in the history of man.” Reagan maintained that communists were willing “to commit any crime, to lie, to cheat” for their ultimate goal of world domination. He

repeatedly attacked détente as a naïve approach to foreign policy in his weekday radio addresses, once memorably quipping: “Détente…isn’t that what a farmer has with his turkey until Thanksgiving?” For Reagan détente only had “meaning if both sides take positive actions to relax the tension. When one side relaxes while the other carries out the greatest military buildup in the history of mankind, the cause of peace has not been advanced.” Like the CPD, Reagan viewed détente as a “one-way street” leading toward Soviet domination. Reagan knew how to counter the Soviet threat. As he told veterans at one campaign stop, “I’ve called for whatever it takes to be so strong that no other nation will dare violate the peace.”  

Reagan’s rhetoric was nothing new; in fact, it was reminiscent Truman and Eisenhower administration initiatives. Still in the 1980s, after a decade of détente, similarities between Reagan’s remarks and early Cold War rhetoric were lost on many Americans. Even pundits assessed Reagan’s rhetoric as dangerous. For example, Charles Krauthammer suggested that Reagan’s foreign policy speeches revealed an innovative approach to Cold War foreign policy, one that transformed containment into a new program of challenging “Soviet expansionism at the limits of empire.” Like many Americans, Krauthammer assessed Reagan’s calls to support anticommunist revolutionaries as brazen. Certainly, Reagan’s calls were a far cry from détente, but this type of rhetoric was certainly nothing new. Reagan simply detested communism and distrusted communists much as he had in the 1950s.  

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37 Pach, “Sticking to his Guns,” 89; Herring, From Colony to Superpower, 863.  
In the early years of his presidency, Reagan administration officials echoed their boss’s bellicose rhetoric. Numerous officials remarked that the United States could engage in and prevail in a protracted nuclear war. When considering how to protect against radioactive fallout, Deputy Under Secretary of Defense T.J. Jones remarked that with “with enough shovels,” every American would be safe after a nuclear exchange. “It’s the dirt that does it,” quipped Jones, revealing a frighteningly simple-minded approach to U.S. civil defense. Reagan’s Vice President George H.W. Bush also publicly remarked on the U.S. ability to “win” a nuclear exchange, as did Reagan’s Secretary of Defense, Caspar Weinberger, who debated the British historian E.P. Thompson about the feasibility of winning a nuclear war. Some pundits agreed. Colin S. Gray, a member of the Hudson Institute, proposed in one *Foreign Policy* article that when it comes to nuclear war “Victory is Possible.” Team B and CPD-like ideas had permeated the White House. In the early 1980s, administration officials were no longer discussing how to avoid a nuclear war, but instead how to win one.³⁹

As president, Reagan continued to accuse the Soviet Union of instigating Cold War hot spots. Reagan was not alone in these accusations—the invasion of Afghanistan alone had forced much of the western world to be wary of Soviet intentions—but his public rhetoric at times seemed brazen. According to historian John Lewis Gaddis, Reagan “could condemn the Soviet leaders with sincerity and zeal, using the harshest rhetoric

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ever heard from a U.S. President.” In May of 1982, Reagan addressed the British
diplomacy and his political ally, Prime Minister Margaret Thatcher, to outline his vision
of the Cold War’s end. To Reagan, the Soviet Union was a country running “against the
tide of history by denying human freedom and human dignity to its citizens.” In response,
Reagan suggested that the western world uphold as universal the idea that “freedom…is
the universal right of all human beings.” Reagan then predicted that American
democracy would leave “Marxist-Leninism on the ash-heap of history.” According to
Gaddis, Reagan’s rhetoric was “profoundly unsettling in Moscow.”

Reagan’s clearest attack on the Kremlin came with his “Evil Empire” speech.
Delivered to the National Association of Evangelicals (NAE) on March 8, 1983, the “Evil
Empire” speech aptly summarized Reagan’s distrust of the Soviet Union. In the speech,
Reagan accused the Soviet Union of being the “focus of evil in the modern world.” This
speech seriously concerned American citizens, the Kremlin, and many people across the
globe. Reagan’s rationale for delivering such a divisive speech remains contested. Likely,
Reagan was aiming to persuade his evangelical base to support his arms buildup and
reject the growing nuclear freeze movement. The speech’s phraseology, “evil empire,”
alluded to the end of times given in the Book of Ezekiel and the Book of Revelations—
although Reagan’s detractors pointed out the term’s similarity to the villainous
government of the George Lucas film *Star Wars*. Whatever inspired his delivery,

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Reagan’s “Evil Empire” speech made front-page news in many American newspapers, with many commentators assessing Reagan’s remarks as “primitive and dangerous.”

If Reagan’s goal in delivering the “Evil Empire” speech was to shore up evangelical support, it seems to have worked. Many prominent evangelicals echoed Reagan’s call to stand strong against the immorality of communism; some even provided their own end-of-the-world prophecies. In 1984 the popular televangelist Jerry Falwell, Reagan’s friend and leader of the “Moral Majority” evangelical group, aired a special entitled *Nuclear War and the Second Coming of Jesus Christ*. As a companion reader for the special, Falwell published a book entitled *Armageddon and the Coming War with Russia*. Such bellicose language from religious leaders was anathema to an antinuclear movement that, in previous years, relied on religious pacifism as a cornerstone of their message. During the 1980s, however, many religious leaders supported Reagan; some even believed that nuclear war could bring about a divine intervention of biblical proportions. In the early 1980s, the President of the United States, his top-ranking administration officials, and even evangelicals were all talking about atomic apocalypse as a real possibility.

There was more to Reagan’s rhetoric than empty campaign promises. As President, Reagan engaged in the largest peace-time military buildup in American history. When it came to defense, Reagan argued that budgets came second: “You spend

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what you need.” Supported by his Secretary of Defense Caspar Weinberger—and undeterred by the warnings of his Office of Management and Budget director David Stockman—Reagan continued the trend of his predecessor Jimmy Carter and worked to increase American military might. Under Reagan, defense spending increased annually, from $154 billion in fiscal year 1981 and peaking at $295 billion for fiscal year 1989. By the end of his presidency, his administration’s total defense spending amounted to $2.7 trillion. The majority of these funds went toward conventional weaponry, such as modernizing American aircraft, submarines, and other tactical military vehicles. Some of Reagan’s spending went toward the development of new nuclear weapons and delivery systems, including the B-1 and a new B-2 bomber, MX missiles, Trident missile submarines, and intermediate range cruise missiles. A comparatively paltry sum—roughly $4 million—went to a reevaluation of nuclear civil defense plans. Much more went to support CIA director William Casey’s covert anticommunist operations in Central America and Afghanistan. The latter covert-op proved especially effective, as American dollars—matched by Saudi funds—supported the Mujahadeen, the Islamic Afghani ground troops which bogged down communist forces for nearly a decade. In sum, Reagan had overseen the largest peace-time defense spending program in U.S. history.

In March 1983, only weeks after his “Evil Empire” speech, Reagan embarked on a new program of nuclear defense that surprised even his closest advisors. The Strategic Defense Initiative (SDI) was a vague but hopeful idea that one day America could defend

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itself against a nuclear first-strike. Reagan hoped that this program of space-based anti-ballistic missile defense could render nuclear weapons “impotent and obsolete.” In a televised address, Reagan asked the American people if, in a nuclear world, would it not be better “to save lives [rather] than avenge them?” Because the technology for such defenses remained decades away, Reagan’s plan promised to increase defense spending even further. SDI remained so far beyond available technical capabilities that the media called Reagan’s plan “Star Wars” after the fictional movie SDI seemed to mimic.\(^{44}\)

The Soviets, however, were less amused. While they had engaged in their own nuclear buildup, the Soviets believed that SDI negated the détente-era Anti-Ballistic Missile (ABM) treaty. SDI, if it could ever even be realized, could gravely destabilize the nuclear Cold War. Many in the Kremlin viewed SDI as an attempt to gain a first-strike capability. Soviet General Secretary Yuri Andropov viewed SDI as a plan to “disarm the Soviet Union in the face of the U.S. nuclear threat.” Andropov’s foreign policy assistant, Andrei Aleksandrov-Agentov, remarked that “whether [SDI] was a practical idea or not…this Star Wars declaration was a contribution for substantial worsening of our relations.” In response to SDI, the Soviets increased their nuclear arsenal. Reagan believed that SDI could render nuclear weapons “impotent and obsolete,” but in reality this program was escalating the nuclear arms race and destabilizing already dismal superpower relations.\(^{45}\)

The Reagan administration did much to increase nuclear fears, but the Soviets also escalated tensions during the Second Cold War. In addition to engaging in their own

\(^{44}\) FitzGerald, *Way Out There in the Blue*, 16-19.

nuclear buildup and continuing their proxy war in Afghanistan, on September 1, 1983, Soviet military aircraft shot down Korean Airliner 007 (KAL 007). While the Kremlin maintained that KAL 007 was a U.S. reconnaissance airplane, the killing of 241 civilians—including 61 Americans and U.S. Representative Lawrence McDonald (D-GA)—flying in a clearly-marked commercial airliner stunned the world. Privately, Reagan urged restraint, but publicly the President called the act a “crime against humanity.” In the days that followed the shootdown, Moscow’s refusal to accept responsibility for the incident hurt their already reeling reputation in the international community. In the wake of KAL, Soviet foreign minister Andrei Gromyko remarked that “the world situation is now slipping toward a very dangerous precipice.” Looking back on September 1983, Reagan biographer Lou Cannon reflected that the global situation had “gone beyond words.”

In October 1983, the “Euromissile” crisis exacerbated tensions even further. The roots of this crisis date back to 1977 when then-President Carter responded to the Soviet deployment of SS-20 intermediate range ballistic nuclear missiles (IRBMs) throughout the eastern bloc. The Soviet SS-20, with its multiple independently-targeting re-entry vehicle (MIRV) design, greatly improved on its predecessors and essentially tripled the destructive power of each missile. Alarmed, West German chancellor Helmut Schmidt asked NATO for support. In 1979, NATO proposed a “dual track” response. On one track, the U.S. would deploy nuclear Pershing II IRBMs and tactical cruise missiles throughout Great Britain, Italy, and Western Germany by 1983; on the other track, the

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U.S. would negotiate for the limitation of these intermediate range missiles which threatened Europe. By 1983, Carter’s decision became Reagan’s burden. In the hopes of removing the Soviet missiles, Reagan’s Assistant Secretary of Defense Richard Perle proposed his “zero option,” a scenario in which U.S. missiles would not be deployed if the Soviets first removed their SS-20 IRBMs. The “zero-option” seemed unlikely to garner results; its architect, Perle—a hawk and protégé of the nuclear strategist Albert Wohlstetter—likely did not want to negotiate with the Soviets in the first place. When superpower negotiations over the INF standoff broke down, antinuclear protests sprung up in Great Britain, France, and Western Germany.47

In addition to the Euromissile crisis, U.S. military actions abroad suggested to many that conventional military actions might escalate into nuclear war. The 1979 radical revolution in Iran, the 1981 assassination of Egyptian leader Anwar Sadat, U.S. covert operations within Afghanistan, and the ongoing war between Iraq and Iran, made the Middle East a focal point of unrest in the world. Reagan sought to restore stability to the region. First, he focused his attention on Lebanon. Concerned that an Israeli invasion of Lebanon could trigger cascading hostilities throughout the region, Reagan committed a small “peacekeeping” force to Beirut. The Soviets recoiled from this decision, but Reagan was convinced that a U.S. marine presence could help stabilize the region. Tragically he was proven wrong when, on October 23, 1983, a suicide bomber drove an explosive-packed delivery van into the American military barracks. The blast was

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enormous and killed 241 U.S. Marines. For many Americans, this tragedy brought home the growing strategic quagmire of the Middle East.\footnote{Cannon, \textit{President Reagan}, 339-401.}

Two days after the explosion, U.S. military forces invaded the small Caribbean island of Grenada. Reagan had long been concerned about Soviet expansionism in the western hemisphere, but the invasion’s proximity to the Lebanon bombing seemed to skeptics like a political maneuver. Reagan, however, had genuine motivations for the invasion—he hoped to free American students from the island’s St. George’s School of Medicine. To defend his decision, Reagan took to television airwaves. While the invasion was poorly organized, the end result—of U.S. news networks capturing images of American students returning home—won Reagan much needed domestic political points. For many Americans, however, the combination of Reagan’s bellicose rhetoric, military buildup, deployment of nuclear warheads to Western Europe, and covert and overt military actions in the Middle East, the Caribbean, and in Latin America, signaled that the Second Cold War might quickly escalate into a deadly nuclear confrontation. In November of 1983, it almost did.\footnote{Ibid., 390-395.}

In an exercise dubbed “Able Archer,” the superpowers came closer to nuclear war than any other period of the Second Cold War. Nuclear war game exercises like Able Archer—in which NATO or the Warsaw Pact engaged simulated a nuclear first strike—were common during the Cold War. Yet Reagan’s rhetoric, and especially his “Evil Empire” and “Star Wars” speeches, had by 1983 caused the Soviets to suspect that the United States just might attempt a nuclear first strike. In June of 1983, Soviet Premier
Yuri Andropov informed the Central Committee that Reagan had triggered an “unprecedented sharpening of the struggle” and that he might be preparing for nuclear war. In response the KGB, the Soviet intelligence organization, redoubled its efforts. In November 1983, the KGB grew alarmed by Able Archer, especially NATO’s shifting military forces, engaging in practice drills for military base officers, sounding test-alerts at American military bases, and testing communications between leaders at the highest levels. Able Archer so closely mimicked KGB predictions of how a nuclear first strike might start that it alarmed Soviet leaders at the highest levels. Because Able Archer came so soon after the recent arrival of American nuclear warheads in Western Europe, it only exacerbated nuclear tensions. Had Able Archer become public knowledge, it would have fueled an already considerable antinuclear protest movement rallying against the bomb.

An Antinuclear Response

The end of détente, the rise of the neoconservatives, the ascent of Ronald Reagan, and the rhetoric and politics of his first administration, all contributed to a surge of antinuclear activism unmatched in American history. In the early 1980s, numerous antinuclear organizations formed in both America and Western Europe. Established Cold War antinuclear organizations, such as the Committee for a Sane Nuclear Policy (SANE), Physicians for Social Responsibility, and the Union of Concerned Scientists, refocused their efforts toward the growing antinuclear movement. There was also a surge of grassroots activism. Roger Molander’s Ground Zero organization and its “Ground Zero Week”—a seven-day series of teach-ins and antinuclear events—drew thousands of

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Christopher Andrew, For the President’s Eyes Only: Secret Intelligence and the American Presidency from Washington to Bush (New York: Harper Collins, 1995), 472.
participants nationwide. The most successful antinuclear grassroots movement of the decade, however, was the nuclear freeze campaign.

The largest antinuclear movement of the Cold War remains the nuclear freeze campaign. The freeze movement began in 1978 and gained momentum after the 1979 Soviet invasion of Afghanistan and the nuclear reactor leak at Pennsylvania’s Three Mile Island. When Randall Forsberg, a director of the Institute for Defense and Disarmament Studies, published “A Call to Halt the Arms Race,” the pamphlet became a must read for antinuclear activists. Forsberg’s simple call to halt the “testing, production and deployment of nuclear weapons” sidestepped the complexities of nuclear defense strategy and provided a simple solution to a dangerous problem. By the summer of 1982 close to one million Americans flooded the streets of New York City to support the freeze; it remains the the largest antinuclear demonstration in U.S. history. As the freeze made headlines, Congressional leaders such as Edward Kennedy (D-MA) and Mark Hatfield (R-OR) expressed bi-partisan support for a freeze resolution in the Senate.51

The era’s literature expressed rising levels of atomic anxiety. From 1979 until 1983, publishers pushed over 130 antinuclear books into the marketplace. Antinuclear groups such as Ground Zero published antinuclear “primers” for non-experts. Nuclear experts contributed more specialized readers. For example, Solly Zuckerman’s Nuclear Illusion & Reality tasked politicians—not grassroots activists—with taking charge to stabilize a nuclear world. Zuckerman suggested that political leaders revisit détente-era

initiatives such as a limitation on ABM programs. Similarly, Leon Wieseltier’s 1983 paperback *Nuclear War, Nuclear Peace* pleaded that politicians work toward verifiable disarmament between the superpowers. Journals such as *Harvard Magazine* and *The American Journal of Public Health* published articles entitled “Danger: Nuclear War” and “Addressing Apocalypse Now.” Herman Kahn, the author of *On Thermonuclear War* (1957) and *Thinking About the Unthinkable* (1962), reentered the national nuclear dialog with his 1982 book *Thinking About the Unthinkable in the 1980s*. Kahn’s suggestions that the United States would be victorious in a nuclear war, with perhaps only suffering twenty million American casualties, did little to ease atomic anxiety.52

Experts in other fields, such as the “Physicians for Social Responsibility,” published works examining the psychological consequences of nuclear fear and the bomb’s effects on “childhood development.” By 1982, nuclear fear had grown so pervasive that diverse antinuclear groups were springing up all over the country, including Architects for Social Responsibility; Business Executives Move; Dancers for Disarmament; Life Insurance Industry Committee for a Nuclear Weapons Freeze; Parenting in a Nuclear Age; Performing Artists for Nuclear Disarmament; and Social Workers for Nuclear Disarmament. The rise of these numerous antinuclear organizations suggests that nuclear fear had permeated diverse strands of American culture. By 1983,
one nationwide survey revealed that “70 percent of all Americans wanted a negotiated freeze on nuclear weapons.”

The Second Cold War marked the return of the nuclear “survivalist.” Surviving a nuclear war had been a common theme of do-it-yourself books and pamphlets of the 1950s and 1960s. By the late 1960s, however, American civil defense icons, such as the backyard bomb shelter, were largely seen as ineffectual defenses against the nuclear threat. Reagan administration officials’ suggestions that nuclear war was winnable changed such perceptions. By 1981 survivalist stores experienced a surge in business. SI Incorporated, a California based survivalist-food market, expanded its product line to include equipment to use “in case of nuclear attack.” In Pennsylvania, the Nuclear Fallout and Bombshelter Supply and Construction Company marketed fallout shelter air-filtering ventilation systems and the newest “radiation meters, radiation-resistant clothing, anti-contamination kits.” Survivalist books such as Survive the Coming Nuclear War, Life after Doomsday, and Nuclear War Survival Skills advised Americans on the best methods of surviving a nuclear attack. One print advertisement for Life after Doomsday suggested that “if you are serious about survival and especially if you feel that nuclear war is a growing possibility, then this book is a must for you.” Fallout Survival: A Guide to Radiological Defense suggested ways to combat the invisible poison of nuclear weapons. The Nuclear Survival Handbook suggested that families keep ferrets as pets and train the animals to catch wild game. Such advice may not have proved genuinely helpful in the

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wake of a global thermonuclear war; nonetheless, these publications suggest a surge in nuclear survivalist literature built upon heightened atomic anxiety.\textsuperscript{54}

Such survivalist literature was colorful, but by far the most popular antinuclear book of the period was the more sober—and more realistic—predictions of Jonathan Schell’s book \textit{Fate of the Earth}. The book began as a three-piece essay in the \textit{New Yorker} magazine, but because of the heightened levels of atomic anxiety, it quickly became a highly anticipated bestseller. Schell’s sobering first chapter emphasized that even for those who survived a nuclear blast, the resulting radioactive fallout, lack of government infrastructure, absence of medical care, the rise of epidemics, and global environmental changes would kill any survivors. Schell’s message was timely, accurate, and alarming. Americans sought out \textit{Fate of the Earth} in droves, propelling it up the \textit{New York Times} bestseller list and making Shell’s book a must-read for the concerned Second Cold War citizen.\textsuperscript{55}

Alongside popular literature, antinuclear films experienced a similar resurgence in popularity. Numerous Cold War films included atomic themes, but many used atomic science—and especially radioactivity—as a transformative element to mutate sci-fi monsters or villains. By contrast, most early 1980s nuclear films were deadly serious. In 1982, a collection of U.S. Cold War civil defense shorts entitled \textit{The Atomic Café} circulated through university and art school theatres. The 1983 film \textit{Testament} traced one family’s futile attempt to survive after a nuclear war. In 1984, the British Broadcasting


\textsuperscript{55} Jonathan Schell, \textit{The Fate of the Earth} (New York: Alfred A. Knopf, 1982); James Lardner, “the Bomb Schell: The Media Fallout After \textit{The Fate of the Earth}” \textit{Newsweek}, April 22, 1982, Section C1.
Company (BBC) produced *Threads*, a sobering and critical assessment of British civil defense plans. The most memorable antinuclear film of the era, however, aired on November 20, 1983 on the American Broadcasting Company (ABC). An estimated 100 million Americans tuned in to watch *The Day After*, a fictional depiction of nuclear war in Lawrence, Kansas. *The Day After* became one of the most watched TV events in American television history. Director Nicholas Meyer stated that he created *The Day After* to be a public service announcement about the dangers of nuclear weaponry. *The Day After* achieved Meyer’s desired effect. The film was both emotionally and politically charged, and sparked a media frenzy leading *The Day After* to become one of most publicized antinuclear events of the Second Cold War.56

In popular music, atomic themes reemerged in pop songs. American and European pop artists articulated atomic anxiety in songs and in videos. The emergence of Music Television (MTV) in the 1980s allowed politically charged pop to reach millions of Americans. Influenced by nuclear fear, early 1980s pop songs were reminiscent of earlier Cold War atomic themes. Bands like Timbuk 3 ironically suggested that “The Future’s So Bright, I Gotta Wear Shades,” while German singer Nena’s antinuclear anthem “99 Luftballoons” became a crossover hit that dominated American airwaves. In Great Britain, artists including Tears for Fears, Big Country, Genesis, Roger Waters, David Bowie, Frankie Goes to Hollywood, Ultravox, and XTC created pop music with

antinuclear messages. One of the most famous British artists of the 1980s, Sting, climbed the Billboard charts in 1984 with “Russians,” a song that detailed the 1980s superpower standoff and pleaded that “there’s no such thing as a winnable war / it’s a lie we don’t believe anymore.” During the 1980s, pop artists provided a catchy Second Cold War soundtrack with a political message.57

Even atomic scientists, the earliest critics of atomic weaponry, transcended academic circles to engage in antinuclear cultural activism. Popular scientist Carl Sagan introduced the “nuclear winter” theory on October 30, 1983. Acting as a spokesperson and publicist for a cadre of reputable scientists, Sagan explained that in the event of a nuclear exchange the resulting fires would produce considerable amounts of soot and ash. These particulates would rise into the atmosphere and encompass nearly half of the globe, blocking sunlight and crippling agriculture. Even in the event of a successful limited nuclear war—the kind which Reagan administration officials had been suggesting in the media—peoples of all nations would eventually perish from a nuclear winter. Sagan’s promotion of nuclear winter transcended scientific circles and permeated American mass media. Sagan’s attempt to add a scientific voice to a popular antinuclear movement only made the nuclear threat all the more credible. By 1983 it seemed that no matter where they looked, popular culture reminded Americans of the growing nuclear threat.58

Conclusion

Taken together, the events of Reagan’s first term destabilized Cold War superpower relations and exacerbated nuclear fear across the globe. This rise in atomic


anxiety cannot be attributed to Reagan alone; certainly the Soviets did much to raise tensions. While Reagan’s approach to communist containment was reminiscent of earlier Cold War initiatives, in the period following détente Reagan’s words and actions led many in America—and in the Kremlin—to believe that he just might start a nuclear war. Reagan’s unprecedented arms buildup deepened such suspicions and kindled an already growing arms race. By 1983, tensions over the Euromissile crisis, KAL 007, the Evil Empire Speech, SDI, and the dismal state of superpower relations led many, including French President Francois Mitterand, to comment that 1983 felt like the 1962 Cuban Missile Crisis.

In 1982, *Time* magazine’s headline story “Thinking about the Unthinkable” investigated the surge of early 1980s atomic anxiety. By 1983, *Time* ran another telling headline. In its annual “Man of the Year” feature, *Time* awarded the distinction to both President Reagan and Soviet Premier Yuri Andropov. The magazine’s cover, however, depicted the two leaders standing back to back with firm faces and firm resolves. *Time* had again provided a lasting symbol of Second Cold War tensions. Statistical analysis supported the magazine’s claims that Americans were thinking about the unthinkable in unprecedented numbers. By 1981, polls indicated that 47 percent of Americans believed that nuclear war was possible. These fears had diminished little when another poll conducted in October of 1983 found that 45 percent of Americans identified nuclear weapons as one of their “greatest concerns.” In the early 1980s, then, few predicted that nuclear fear would abate anytime soon.59

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Early 1980s American atomic anxiety was more prolonged, and more culturally promoted, than at any other time in Cold War history. Popular culture represented nuclear war in stark and frightening ways, and American mass media covered nuclear debates in great detail. Scholars seeking a more accurate and complete appraisal of early 1980s politics, culture, and foreign policy, would do well to augment their archival research with atomic culture. During Reagan’s first term, nuclear fear was omnipresent. Concerned for their lives and the “Fate of the Earth,” numerous artists, writers, publishers, scientists, and musicians engaged in antinuclear cultural activism. Reagan sought to sell his own vision of how the Second Cold War would end, but because of these cultural activists millions of Americans rallied behind the antinuclear cause. To gauge the heightened levels of nuclear fear so predominant in the post-détente era, scholars need to look no further than Reagan-era popular culture.
CHAPTER 3: ANTINUCLEAR PAPERBACKS AND THE WHITE HOUSE’S “PEACEFUL OFFENSIVE”

Fear books. Books that deliver disquieting messages about radiation leaks and environmental poisons and bombs so powerful they could ultimately destroy the human race. Most of us have a hard time escaping these horrors on the nightly news and in the morning papers. Do we really want to read about them in our leisure time?

-Publishers Weekly editor Joann Davis
March 1982

In response to the growing atomic anxiety of the Second Cold War, the American literary marketplace experienced a surge in nuclear nonfiction. Between 1979 and 1983, publishers introduced over 130 antinuclear books into the American market, a considerable increase from previous years. According to Publishers Weekly editor Joann Davis, “even taking into account publishers’ habitual consignment of slow-selling titles—and books about nuclear matters often fall into this category—this statistic still indicates considerable growth.” Daniel Moses, then editor-in-chief of Sierra Club Books, suggested that antinuclear politics—and not just profits—motivated publishers to push antinuclear paperbacks in the marketplace: “Editors and publishers don’t expect to sell a lot of books on [nuclear war]. It’s not a commercial enterprise. I think they genuinely feel an obligation to inform the public on this issue.” Many publishers pushed antinuclear literature in the early 1980s to inform the public about arms race debates. In time, publishers’ efforts to sell warnings about the Second Cold War arms buildup would force

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the Reagan administration to engage in its own publicity campaign to contain these paperbacks’ critical messages.\textsuperscript{61}

Scholars have largely downplayed publishers’ importance in spreading antinuclear political messages through literature, and misgauged just how much these works alarmed the Reagan administration.\textsuperscript{62} Publishers were some of the first antinuclear cultural activists of the 1980s, and their political motives led to the four most successful antinuclear books of the decade. The first, \textit{The Unforgettable Fire}, set the stage for a resurgence of antinuclear literature. The second, Jonathan Schell’s \textit{Fate of the Earth}, warned about the dangers of the arms race in vivid detail. The final two books, Ground Zero’s \textit{Nuclear War: What’s In It for You?}, and Ted Kennedy’s and Mark Hatfield’s publication \textit{Freeze! : How You Can Help Prevent Nuclear War}, were tools that promoted the largest antinuclear rallies in U.S. history. Of the roughly 130 antinuclear books of the early 1980s, these four works outsold all of their contemporaries and had the most success in fueling American antinuclear activism.

These four books garnered so much media attention that by 1982 the White House could no longer ignore their popularity. To combat the critical messages of antinuclear literature, the Reagan administration engaged in its own public affairs campaign to deter literary attacks and provide an alternative, positive message about arms control policies. The White House even created its own publication to compete with antinuclear literature and tout administration efforts to avoid a nuclear war. In 1982, a year in which hardliners

\textsuperscript{61} Ibid., 45.

still dominated the Reagan administration; these efforts were far from sincere; notably, National Security Advisor William Clark proposed publicly considering the freeze movement’s demands, but privately he reassured administration officials that such statements would amount to nothing more than “a propaganda exercise.” Still, publishers’ efforts helped to popularize a growing antinuclear movement that, by 1982, the White House simply could not ignore. These books forced the Reagan administration to go on the defensive and tout peace, a rhetorical reversal from its previous stance of hardline anticommunism and increased militarism.63

Cold War Antinuclear Literature

Atomic-themed books appeared throughout earlier Cold War decades, but these works seldom topped bestseller lists. Exceptions to this rule came largely from works of fiction.64 For example, in 1957 Nevil Schute’s On the Beach, a fictionalized account of a global nuclear war, became a bestseller. In 1959, Walter M. Miller’s A Canticle for Leibowitz achieved cult status due to its dystopian depiction of civilization after a nuclear war. In 1978, Barefoot Gen gave readers an unflinching take on the atomic bombing of Japan. By the early 1980s, apocalyptic-themed books still sold moderately well, such as The Fifth Horseman, Nuclear Nightmares, or The Huntsman; but overall nuclear war remained too grim a subject for bestselling nonfiction. The notable exception came in 1946 when New Yorker contributor John Hersey wrote a series of essays describing the

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64 For numerous examples of atomic culture, see On atomic-themed fiction, Paul Boyer provides insightful analyses in By the Bomb’s Early Light: American (New York: Pantheon, 1985); on comics see Ferec Szasz “Atomic Comics” in Michael Amundson and Scott Zeman (eds.), Atomic Culture: Or How We Learned to Stop Worrying and Love the Bomb (Boulder: University Press of Colorado, 2004), 11-31.
U.S. atomic bombing of Hiroshima. Published as a cohesive work later that year, Hersey’s *Hiroshima* became the first antinuclear bestseller of the atomic age.65

*Hiroshima* informed curious Cold War readers about atomic weaponry and its destructive power. The book humanized the horrors of nuclear war by including powerful interviews with survivors of the first atomic bombing. These stories unsettled Americans who only a year previous had considered “the bomb” proof of American military might and scientific superiority. Hersey’s book was less positive. It challenged a largely nationalistic narrative about the atomic bombings, and even questioned the necessity of dropping the atomic bombs. Hersey exposed readers to the realities of a nuclear attack and the death it brought upon innocents and children. *Hiroshima*, the first book to focus on the human and personal effects of atomic weaponry, absorbed a nation grappling with its decision to use atomic bombs.66 *Hiroshima* did not set a precedent, however, and in the decades that followed atomic activism fluctuated. During the 1960s and 1970s, American activism shifted focus towards the domestic issues and antiwar protests. Even antinuclear organizations, such as the Committee for a Sane Nuclear Policy (SANE), refocused their energies towards American military involvement in Vietnam. It took the alarming events of 1979—including the Soviet invasion of Afghanistan and the Three

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Mile Island nuclear power plant catastrophe—to raise American’s collective atomic anxiety and make antinuclear literature pertinent again.67

More than any other domestic event, the March 29, 1979 reactor meltdown at Pennsylvania’s Three Mile Island (TMI) rekindled nuclear fears. The TMI incident remains the worst nuclear accident in United States history. The meltdown occurred through a combination of engineer negligence, faulty control panel gauges, and reactor relief valve disruption. As the necessary valves failed to close, reactor core temperatures increased and threatened to cause a meltdown. Engineers did avoid a total reactor failure, but radioactive steam contaminated the surrounding community and the nearby Susquehanna River. TMI was already headline news, but less than two weeks after the incident a major motion picture entitled The China Syndrome—which depicted events eerily similar to the Pennsylvania nuclear accident—increased American wariness of nuclear power. TMI and The China Syndrome reenergized nuclear power debates.68 The incident also influenced the first major piece of antinuclear nonfiction since John Hersey’s Hiroshima, a book entitled The Unforgettable Fire.

The TMI incident influenced editor and writer Tom Engelhardt to bring The Unforgettable Fire to Pantheon Books. Immediately following the TMI incident, Engelhardt met with Ann Marie Cunningham, a member of President Carter’s

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Commission on the Accident at Three Mile Island. She told him a memorable story. After TMI, Japanese reporters traveled to America to cover the incident. One foreign reporter interviewed displaced, expecting mothers; as a safety precaution, many women had been relocated from their homes near TMI to an abandoned skating rink in Harrisburg. While questioning them about the disaster and fears of radioactivity, the reporter also queried these women about their knowledge of Hiroshima. He was alarmed to discover that only few of the dozens of women interviewed knew anything about Hiroshima or the U.S. atomic bombings of Japan.69

The story shocked Engelhardt. As a child, the film *Hiroshima Mon Amore* made a lasting impression on Engelhardt, especially the film’s images of Hiroshima survivors. The 1962 Cuban Missile Crisis solidified his fears of nuclear weapons. Yet like many Americans, in the 1960s Engelhardt shifted his energies towards antiwar protests. It took Cunningham’s story to rekindle his enthusiasm for the antinuclear cause. Engelhardt decided to publish a book about Hiroshima in America. Looking for suggestions, he asked friend and Japanese historian John Dower for advice. Dower sent the editor numerous suggestions, including a collection of photographs taken in Hiroshima after the bombings, but Engelhardt considered these images “too grim” for public consumption. Then Dower sent Engelhardt the Japanese version of *Unforgettable Fire*, a collection of pastels and drawings by Hiroshima survivors. Engelhardt soon convinced Pantheon to publish the work in the United States.70

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70 Ibid.
The original Japanese publication of *Unforgettable Fire* predates its U.S. release by six years. The project began in 1974 when a Hiroshima survivor, Mr. Iwakichi Kobayashi, entered the Hiroshima NHK television studios. Inspired by a recent program on the bomb’s survivors, Kobayashi shared his own sketches, drawn from memory, with the company’s producers. Awestruck by the “extraordinary power of Mr. Kobayashi’s picture and the vividness of his memory even after almost thirty years,” NHK put out a call for Hiroshima survivors to submit atomic bomb drawings.\(^71\) They received numerous submissions from amateur artists forever scarred by Hiroshima. These images were featured in a NHK television program commemorating the thirtieth anniversary of the bombings, as well as a display at the Peace Culture Center in Hiroshima City.

Image 2: Yamashita, from *The Unforgettable Fire*.\(^72\)


\(^{72}\) This image’s caption simply reads: “August 9: On the west embankment of a military training field was a young boy four or five years old. He was burned black, lying on his back, with his arms pointing toward heaven.” Japan Broadcasting Corporation (eds.), *Unforgettable Fire: Pictures Drawn by Atomic Bomb Survivors* (New York: Pantheon, 1981), 104.
Engelhardt recalls the impact these images had on American readers. “In America…in the mainstream…there had never been a book that went under the mushroom cloud. You could look at the ruins, but you couldn’t see…the human beings. If you were on the fringes and you knew comics, if you knew Barefoot Gen...maybe…but there wasn’t much.” Engelhardt believes that Unforgettable Fire became a sensation because it provided the “first full-scale publication of the memories of survivors of Hiroshima since John Hersey.” Hersey agreed. He found the book to be “tremendously moving—more moving than any book of photographs of the horror could be, because what is registered is what has been burned into the minds of the survivors.” Many in the American news media echoed these sentiments. A New York Times reviewer, for example, suggested that Unforgettable Fire “deserves a place next to John Hersey’s Hiroshima.”

Unforgettable Fire contributed to the resurgence of 1980s antinuclear activism. “The book became an integral part [of] the antinuclear weapons movement,” recalls Engelhardt, but Unforgettable Fire’s images were also seen by many who never read the book. These images were featured in an exhibit at the Chicago Peace Museum. Curator and museum co-founder Mark Rogovin sought out the images because the book contained “the most powerful visual documents [he] had ever seen.” The exhibit ran for close to a year. On November 30 1982, Rogovin took these images in a tour across the nation. Newspapers reported on the “powerful effect” these images had on viewers who only after seeing the exhibit finally realized “just how dreadful it was for the people

The exhibit even influenced the Irish rock group U2 who, after viewing the exhibit, penned a song and entitled their politically charged 1984 album *The Unforgettable Fire*. Unforgettable Fire sold well in a nation becoming increasingly concerned about the threat of nuclear weaponry, and its success signaled to publishers that serious antinuclear books could reach a mass market. Unforgettable Fire—both the book and the traveling museum exhibit—fueled dissent against the Reagan’s arms buildup and administration officials’ comments about winning a protracted nuclear war. One writer even appropriated excerpts from Unforgettable Fire for a series of essays on the nuclear threat. That writer, Jonathan Schell, provided the most popular antinuclear tract in U.S. history.

**Jonathan Schell’s *Fate of the Earth***

Jonathan Schell’s *Fate of the Earth* proved to publishers that Americans were again ready for antinuclear nonfiction. Schell’s book began as a three part New Yorker essay that conveyed the horrific details of nuclear war in accessible language. Schell’s knowledge about atomic issues was impressive. He devoted five years to researching the consequences of nuclear war and conducted numerous interviews with defense experts,

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scientists, biologists, and ecologists. This research lent Schell’s arguments an air of expertise, while his plain but illustrative language assured a wide readership. Intelligent, accessible, and frightening, Schell’s *Fate of the Earth* quickly became the go-to book for antinuclear activists.77

*Fate of the Earth* addresses nuclear fears in three sections. The first section, “A Republic of Insects and Grass,” examines the ecological, biological, and societal consequences of a nuclear war. Schell argues that lessons from history, and in particular the U.S. atomic bombing of Japan, could show Americans only a fraction of what they would experience during a full scale nuclear war with the Soviet Union. To support his arguments, Schell appropriated quotes and imagery from *Unforgettable Fire*. Schell’s detailed narrative of the horrors that awaited Hiroshima’s survivors, like *Unforgettable Fire*, humanized the horrors of nuclear attack. The following passage explains how radiation poisoning affected Hiroshima’s survivors:

In the weeks after the bombing, many survivors began to notice the appearance of petechiae—small spots caused by hemorrhages—on their skin. These usually signaled the onset of the critical stage of radiation sickness. In the first stage, the victims characteristically vomited repeatedly, ran a fever, and developed an abnormal thirst. (The cry “Water! Water!” was one of the few sounds often heard in Hiroshima on the day of the bombing.) Then, after a few hours or days, there was a deceptively hopeful period of remission of symptoms, called the latency period, which lasted from about a week to about four weeks….in the third, and final, stage…the victim’s hair may fall out and he may suffer from diarrhea and may bleed from the intestines, the mouth, or other parts of the body, and in the end he will either recover or die.78


78 Schell, *Fate of the Earth*, 43-44.
As this excerpt shows, even when explaining medical terms for radiation poisoning, Schell took great care to humanize the victims of Hiroshima. For readers who believed Reagan administration boasts that America could survive a nuclear war, Schell’s writings suggested a more sober reality.\(^7\) Instead of an arms buildup, Schell suggests that that citizens call for the global eradication of atomic weapons. Because nuclear war had such dire consequences, the U.S. policy of deterrence remained an irrational, dangerous doctrine. The only rational step was complete nuclear abolition. Schell’s message was timely, powerful, and poignant.\(^8\)

Responses to the book were overwhelming. According to one commentator, “People who don’t read books are reading Jonathan Schell’s *Fate of the Earth.*” Schell’s book was “rapidly becoming a guidebook for the antinuclear protestors.” Disarmament activist and nuclear freeze leader Helen Caldecott called Schell’s book “the new Bible of our time.” Critics compared *The Fate of the Earth* to Rachel Carson’s *Silent Spring.* Historian Paul Boyer has called Schell’s book “enormously influential” on antinuclear activism.\(^9\) American politicians recognized the book’s power as well, and in 1982 two presidential hopefuls courted Schell’s support. The first, Senator Alan Cranston (D-CA) traveled to New York City to meet Schell and ask him to “summarize the work for distribution to members of Congress.” Later, Senator Edward Kennedy (D-MA), entered

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8. Ibid., 97-232.
“A Republic of Insects and Grass” into the *Congressional Record*, a symbol of his support for the nuclear freeze. Concerned scientists also used *Fate of the Earth* to drive home the horrors of nuclear apocalypse in ways that scientific or technical data could not. As part of the Vatican’s science advisory committee, former Manhattan Project member and M.I.T. physicist Victor Weisskopf presented a copy of *Fate of the Earth* to the Pope in hopes of influencing the Catholic leader’s views on nuclear war. Schell’s book was an antinuclear sensation. Seldom has a book been used to persuade politicians, protestors, and pontiffs alike.\(^82\)

Disarmament proponents were wise to endorse *Fate of the Earth*. Demographic information suggests that 1980s antinuclear activists were well-educated, middle-class Americans, and books were an ideal medium for reaching potential freeze activists. In a decade preceding e-books and blogs, many publishers utilized the “mass market” paperback format to ensure high readership. In the early 1980s, publishing houses had three book formats: hardcover, mass market paperbacks, and trade paperbacks. Hardcover printings had the highest profit margins but were more expensive to print. Publishers used the mass market paperback format for popular second printings or for less-established authors; of the three formats, mass market format is the cheapest to produce. The larger and more alluring “trade paperback” format was a happy medium between these two designs, and publishers believed that this format made paperbacks more substantial and alluring. A publisher’s format choice suggests a book’s market

potential. By 1982, there was substantial buzz about Schell’s *Fate of the Earth*. Many publishers predicted that Schell’s book would be a bestseller. If Schell and his publisher only sought profits, then they would have stuck with the hardcover format. Instead, they quickly changed to the cheaper mass market paperback format. The choice was conscious. Schell hoped to spread his antinuclear message to the greatest number of readers possible. Soon, publishers were offering the *Fate of the Earth* paperback at cost.

Publishers dropped the book’s price out of political conviction. BOMC editor-in-chief Gloria Norris explained the connection between her company’s low-cost strategy and antinuclear politics: “[We made] a special effort to bring [*Fate of the Earth*] to people’s attention” noted Norris. Alfred A. Knopf’s editor-in-chief Robert Gottlieb also preferred publicity over profits: "My main interest is that the world not nuke itself, not that we sell a lot of copies." This approach was not without precedent. Publishers of the 1940s had lowered costs for John Hersey’s *Hiroshima* as well. Schell shared this preference for publicity over profit. He made an “unusual agreement” with publishers in which he received only a minimum royalty for sales. Schell could have reaped monetary rewards from the numerous invitations for interviews and speaking engagements he received, but the author “politely turned them down” and suggested that the book speak for itself. The low-cost high-readership strategy worked. Demand was so high for

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Schell’s book that Knopf had to increase its original print order from 35,000 to 75,000 copies. As sales increased, the book’s success made headlines. The CBS Evening News, the New York Times, and the Wall Street Journal reviewed the book favorably; even the Merv Griffin Show mentioned Fate of the Earth. On CBS television’s Face the Nation, presidential hopeful Walter Mondale called Schell’s writings “historic.” Such publicity propelled Fate of the Earth onto the New York Times bestseller list so quickly that one review called the book “a remarkable achievement.”

After Fate of the Earth, a flood of antinuclear paperbacks followed. Newsweek commented on this “nuclear book boom” and stated that Schell’s success led publishers of anti-nuke books to “expect a brisk business.” Many of these paperbacks questioned Reagan’s arms buildup, warned about the consequences of nuclear war, or pushed for disarmament. Some endorsed the nuclear freeze; others favored more radical approaches to nuclear abolition; a third, much smaller group favored deterrence over disarmament. These subsequent books, however, largely failed to gain Schell’s level of success. There were, however, two exceptions: Nuclear War: What’s In it For You? and Freeze!

Nuclear War: What’s In it For You? and Freeze!

By the early 1980s Rober Molander, a former National Security Council (NSC) staffer under presidents Nixon, Ford, and Carter, had grown fearful over the possibility of

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85 The Book-of-the-Month Club (BOMC) and Alfred A. Knopf did initially offer The Fate of the Earth hardback for $11.95. James Lardner, “The Bomb Schell: The Media Fallout After The Fate of the Earth” Newsweek, April 22, 1982, Section C1.


nuclear war. NSC discussions were increasingly bellicose, and the 1979 Soviet invasion of Afghanistan might bring about a nuclear war. “[When] the Russians had invaded Afghanistan…I somehow felt that the bell had begun to toll, that we had to crack into people's consciousness” about nuclear weapons. Cracking that consciousness would be difficult. In the early 1980s, psychologist Robert Jay Lifton had termed the phenomena “psychic numbing,” a scenario in which Americans knew of the nuclear threat, but felt helpless in changing it. Statistics supported Lifton’s theory. A Gallup poll from October 5, 1981 concluded that 47 percent of those queried on the possibility of nuclear war responded that they had tried “not to think about the unpleasant question.”

But by 1982, Molander could no longer remain numb. He started Ground Zero, a nonpartisan group that would take on the “confusion and frustration the American people experience as they confront [nuclear weapons’] threat to their security.” He also proposed Ground Zero Week, “a concentrated and nonpartisan educational process on nuclear war, a forum for education, discussion and debate” that would take place the week of April 18-25, 1982. For the event, Ground Zero invited organizations as diverse as the United Auto Workers, the Rotary Club, and the American Legion. Molander’s group also received $100,000 from contributors, most considerably from the Rockefeller Fund. Now Ground Zero needed to promote this week of teach-ins and antinuclear demonstrations. Influenced by Schell’s success, the Molanders decided to publish an antinuclear paperback.

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The Ground Zero paperback *Nuclear War: What’s In It for You?* would be “the primary educational resource for the activities of Ground Zero Week.” Molander’s book would have three characteristics: it would explain nuclear war subjects from the Cuban Missile Crisis to contemporary nuclear-war scenarios, examine the environmental consequences of nuclear war, and like Schell’s book, use accessible language to appeal to a wide readership. *Nuclear War* opens with a fictional narrative based on one plausible “war-game” scenario. Soviet military actions in the Middle East lead to a limited nuclear attack on the United States. In this opening story, a badly burnt son and his injured sister take refuge in their home, some miles away from the initial blast site in rural middle-America. Without electricity, heat, or substantial supplies, the story ends with their mother—an army widow—pondering how her family will survive and wondering why she did not do more to protest against nuclear proliferation. As her children lay wounded, the story’s protagonist wonders about her lack of antinuclear activism:

All the careful talk about nuclear weapons. BOMBS, that’s what they were really talking about. BOMBS. *Weapons* is just a nice word…like when they used to call them devices. That’s what they called them after Hiroshima…It was all so abstract, so remote. People simply don’t have nuclear wars. Things could never get so out of control. She tried to recall what she had read in the newspapers about nuclear war. All she could remember were the strange names and numbers…Should she have read more carefully? Should she have *tried* to understand all the strange names—M-X, B-1, ICBM, SS-18, MIRV, Backfire, Trident? Well, at this point, it didn’t seem to matter very much.

This depressing story not only emphasizes a lost window of opportunity to protest against nuclear weapons, but also the ability of nuclear strategists’ language to obfuscate the dangerous realities of the arms buildup. The allusion to the dehumanizing use of atomic
acronyms is telling; Molander was transcending the expert language of nuclear specialists to humanize the threat of nuclear war for a broad audience.\textsuperscript{90}

With the idea for a nuclear primer solidified, Molander sought a major publishing house. He recognized that the book would need a major publisher to reach a mass audience. He contacted Pocket Books and its editor-in-chief Martin Asher. Molander hoped that Pocket would “devote its expertise in mass-market merchandising” to his paperback. Molander sold his idea as an antinuclear book written in “a style easily comprehended by the average American” or in “the Dr. Strangelove mode, with a touch of wry humor.”\textsuperscript{91} Asher liked the idea. The editor knew that Jonathan Schell’s \textit{The Fate of the Earth} was scheduled for publication in the coming months, but he viewed Schell as an intellectual elitist whose writings were geared towards “liberals and New York sophisticates.” Even if Asher was sympathetic with \textit{Fate of the Earth}'s antinuclear message, he detested its language. Molander’s proposal for a similar antinuclear publication appealed to Asher. It could provide Pocket Books with an alternative to \textit{The Fate of the Earth} and help Asher spread an antinuclear message to readers across America. More than for profits, Asher approved the project based because of his desire to shape antinuclear debates. “As a father of young children,” Asher remarked, “I shared Molander’s feelings” about nuclear war.\textsuperscript{92}

Pocket Books marketed \textit{Nuclear War} in much the same way that Knopf and BOMC treated \textit{Fate of the Earth}. They sold this nuclear primer as a mass-market

\textsuperscript{90} Ground Zero, \textit{Nuclear War: What’s In It for You?} 13-14.

\textsuperscript{91} Ibid.; Martin Asher would later edit John Newhouse’s \textit{War and Peace in a Nuclear Age} and help to usher in the trade press paperback format.

paperback at the cost price of $2.95. The approach worked. Like *Fate of the Earth*, *Nuclear War* became a bestseller. After the first 100,000 copies sold out, Pocket Books ordered a second printing of 125,000 paperbacks; by June 1982, over 270,000 copies had flooded the market. Although sales were high, the book received mixed reviews. Many critics attacked the book’s introductory chapter as watered down; the *Washington Post* lambasted this nuclear narrative as “liberal sentimentalism run amok.” Another review criticized *Nuclear War* as a “well-intentioned primer that reduces the complexities of the Manhattan Project during the Second World War and subsequent U.S.-Soviet foreign policy to cartoon scenarios.” But for Ground Zero, there was no such thing as bad press—even negative reviews publicized the upcoming Ground Zero Week.\(^{93}\)

The media frenzy in the days leading up to “Ground Zero Week” was considerable. According to the *Christian Science Monitor*, “Nobody can open up a newspaper or magazine or snap on a television set without, sooner or later, encountering the newly obsessive subject” of nuclear war and Ground Zero Week.\(^{94}\) On television, a “Ground Zero” forum at Harvard’s John F. Kennedy School of Government featured students asking notable nuclear strategists and statesmen—including Henry Kissinger, Herman Kahn, Edward Teller, and McGeorge Bundy—questions from the *Nuclear War* paperback. In print publications like *The Village Voice*, Ground Zero’s calendar entitled “Making Peace Happen: A Calendar for Survival” promoted the events such as meetings

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entitled “Effects of Nuclear War on Children,” and “Nuclear Arms Negotiation: Where Do We Go from Here?” as well as more uplifting events such as a “run for your life” marathon and a “dances against death” competition.95

Alongside its antinuclear paperback, Ground Zero distributed thousands of pamphlets nationwide promoting Ground Zero Week. The pamphlets explained that Ground Zero week was necessary because “the threat of nuclear war has never been greater” and because “there is no longer a national consensus on how [the United States] should approach this challenging issue.” Ground Zero week would seek “through education and motivation to serve as a catalyst for a new consensus building process in this nation on the nuclear war issue.” Ground Zero focused its efforts in cities and university campuses, reaching 750 communities and 450 universities nationwide.

Turnouts at these rallies were mixed. Some publications reported large turnouts—more than a million Americans in over 2,000 cities participated in Ground Zero Week events. Some events, however, had low attendance. At the University of New Mexico, one Ground Zero event garnered only two participants. One creative university organizer put a positive pedagogical spin on the turnout, suggesting that antinuclear education was “better done in small groups.”96

Alongside publicity, Nuclear War: What’s In It for You? was also an important organizational tool for the antinuclear movement. Its index provided the names and

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contact information for disarmament groups and pro-freeze legislators nationwide. By 1982, the antinuclear movement was broad based. Having little in common aside from their hatred of nuclear weapons, many members of this diverse movement organized around professional affiliations. For example, nuclear freeze organizations included: Architects for Social Responsibility; Business Executives Move; Dancers for Disarmament; Life Insurance Industry Committee for a Nuclear Weapons Freeze; Parenting in a Nuclear Age; Performing Artists for Nuclear Disarmament; and Social Workers for Nuclear Disarmament. These antinuclear activists—from architects to artists—shared little in common besides a hope for disarmament. With its list of addresses for antinuclear organizations and legislators, Ground Zero’s paperback sought to centralize a widespread and scattered movement.97

As Ground Zero made headlines, leaders of the nuclear freeze campaign took note. By 1982, the freeze movement was already in full swing. The movement gained political credibility when two prominent senators—Edward Kennedy (D-MA) and Mark Hatfield (R-OR)—introduced a resolution in Congress calling for “a mutual and verifiable nuclear weapons freeze.” The resolution gained the support of over 190 members of Congress, and Senators Kennedy and Hatfield sought to introduce statewide referendums with similar freeze proposals across the nation. Schell’s Fate of the Earth and Molander’s Nuclear War proved that Americans were clamoring for antinuclear nonfiction; a nationwide mass market paperback could bring diverse strands of the antinuclear movement together. A successful national freeze publication could bolster

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support for the Congressional freeze proposal and increase campaign membership.

Grassroots freeze activists had already created pamphlets to distribute at local rallies, but *Nuclear War: What’s In It for You?* proved how effectively a mass market paperback could help to organize and publicize the antinuclear cause. In 1982, the paperback *Freeze! How You Can Help Prevent Nuclear War* followed the example set by Schell and Molander. The book was a calculated attempt to piggyback on “Ground Zero Week” publicity.  

The freeze paperback project was first set into motion on April 2, 1982 when literary agent Sterling Lord—then representing Senator Kennedy—pushed the idea to Bantam Book’s editor Linda Grey. Lord suggested that if the book coincided with “Ground Zero Week,” the freeze movement could capitalize on Molander’s publicity campaign. Also like Molander’s publication, a freeze paperback would act both a promotional and organizational tool. Senators Kennedy and Hatfield agreed. They utilized their considerable staffs to rush materials to Bantam, a publishing house with experience producing paperbacks in short order. Bantam promised to produce a freeze paperback in only a matter of weeks, and they delivered. By April 18, 1982 over 200,000 copies of *Freeze!* appeared on bookstore shelves right alongside *Nuclear War*. By “Ground Zero Week,” Americans had not one but two competing paperback primers on

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the effects of nuclear war. The freeze had successfully capitalized on Ground Zero’s publicity campaign.99

Like its Ground Zero counterpart, Freeze! was not immune to critical backlash. The increasingly common use of fictional narratives to humanize the victims of nuclear war was arguably effective, but this approach also brought on criticisms of “cheapening the nuclear debate.” The Washington Post’s David Broder, for example, attacked the emotionalism in Nuclear War and Freeze! These books may have touted bi-partisanship, but in reality provided “no balanced, factual information.” Freeze! was full of “emotionalism and sentimentalism,” but serious nuclear debates should be left to knowledgeable policymakers. For example, the recent calls for increased superpower dialog by Senator Sam Nunn (D-GA) provided the “seriousness with which this survival issue needs to be discussed,” as evidenced by the lack of “emotionalism in Nunn's speeches and writing on this subject.” These critiques may have merit, but Nunn never made any bestseller list. Both Nuclear War and Freeze! effectively popularized a diverse antinuclear movement.100

Much as Nuclear War helped to popularize “Ground Zero Week,” Freeze! became a useful propaganda piece for what would become the largest antinuclear protest in American history; on June 12 1982, close to one million protestors flooded New York City to support the nuclear freeze. While the rally began as a modest demonstration by


100 David S. Broder, “Cheapening the Nuclear Debate.”
groups including the Southern Christian Leadership Conference and the American Friends Service Committee, the popularity of *Freeze!* helped to turn the New York City rally into a historic event. Freeze activists from across the nation, and across the globe, marched in protest. Celebrities Bob Dylan, Joan Baez, and Paul Newman also helped to popularize the enormous gathering of antinuclear protestors. Network news coverage of the event was considerable. The New York City freeze rally became the biggest political demonstration in United States history; the media even compared this antinuclear rally to Woodstock. By 1982, with millions of antinuclear paperbacks flying off the shelves, a nuclear freeze resolution set for Congressional consideration, and the largest peace rally in U.S. history, the White House could no longer ignore the messages popularized by *Fate of the Earth, Nuclear War*, and *Freeze!* 101 Among the roughly 150 antinuclear books published between 1980 and 1983, *Fate of the Earth, Nuclear War: What’s In It for You*, and *Freeze!: How You Can Prevent Nuclear War* spread antinuclear messages more effectively than their contemporaries, and the White House would focus their efforts on challenging the criticisms of these books.

**The White House’s “Peaceful Offensive”**

Faced with a growing antinuclear movement, the White House worried about President Reagan’s hopes of reelection. In the face of growing protests over the planned Euromissile deployment, Reagan’s planned summer trip to Europe would be a public relations challenge. In preparation, the administration prepared talking points to deflect criticisms from freeze advocates. James Baker drafted numerous suggestions on how to co-opt the freeze movement’s message. First, Reagan should continually tout that

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101 Mike Maus and Jessica Savitch, NBC Evening News, Saturday June 12, 1982.
American objectives are to “prevent a ‘freeze’ of a present Soviet advantage” while avoiding “calls for unilateralism” so as to “inhibit the growth of pacifist sentiment.” Baker believed that the way to achieve these goals was by “co-opting the freeze movement through commitment to a freeze at a reduced level,” or, put simply, ensuring that both superpowers reduced their nuclear arsenals “before applying a freeze.” Although these points might sound like concessions to the freeze movement, Baker made it clear that this rhetoric was empty: “The Soviets would never agree to a reduction in the present numbers of weapons they have, nor would they agree to allow the U.S. to build up their present level without further increases on their part.” In other words, Baker suggested that publicly the White House should appear to listen to freeze advocates, while in reality the White House would consider no such agreement to limit their nuclear buildup. In Baker’s own words, the suggestion that the White House was considering calls for a nuclear freeze was “all a propaganda exercise.”

White House efforts to contain the burgeoning freeze movement continued throughout April 1982. The antinuclear paperbacks *Nuclear War: What’s in it for You?*, and *Freeze!* so effectively popularized the antinuclear movement—especially through “Ground Zero Week”—that the White House could no longer ignore their popularity. William Clark called the antinuclear movement “the most important national security opportunity and challenge of this Administration.” Clark believed that “the nuclear freeze movement and the accelerating growth of anti-nuclear sentiment in this country and abroad make it imperative that the Administration develop a comprehensive arms control

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and defense information effort on the important issues involved.” In response, the Reagan administration needed to present its own brand of Second Cold War propaganda that could compete with highly effective pro-freeze literature.103

On April 22, 1982, Clark outlined to James Baker, Edwin Meese, and Michael Deaver—the “troika” that dominated Reagan’s first administration—a detailed public relations plan to counteract the antinuclear movement’s paperbacks and their accusations of hyper-militarism and nuclear saber rattling. He warned that “the movement to educate Americans on the effects of nuclear weapons is gaining momentum, and this week enters a crucial phase” as Ground Zero Week was an event that could lead to “a variety of policy proposals” that might complicate the Reagan administration’s “grand strategy.” Clark proposed that “Ground Zero educational activities leave the movement open for exploitation by others of all stripes,” and therefore White House “efforts should be directed toward convincing Americans whose anxieties are heightened by this movement that our policy solutions best meet their desire [to] lessen the prospect of a nuclear holocaust.” Clark stressed urgency: “The time for us to do something is now.”104

While the “U.S. would probably have difficulty agreeing to a freeze…since it would yield a U.S. advantage in technological advances (such as the cruise missile),” Clark still saw the political value in publicly acknowledging the merits of considering a freeze proposal. Baker agreed. He stressed that the White House needed to be clear in


104 Memo, William Clark to Edwin Meese, James Baker, Michael Deaver, April 22, 1982, Box OA 10529, “Nuclear Freeze 1 of 8” David Gergen Files, Ronald Reagan Library. Notable Reagan administration historians, from Richard Reeves to Lou Cannon, refer to Baker, Deaver and Meese as the “troika” that ran the White House during Reagan’s first term.
using the language of the antinuclear movement: “Unless we use the term ‘freeze’ in our statement,” Baker suggested, “we will not succeed in co-opting any significant part of the freeze movement. To the contrary, we will be laying out an alternative and competing position.” Baker believed that the “entire freeze movement rests on its simplicity (or simplistic appeal, if you will); it is thus easy to blur the distinctions between ‘freeze as is’ and ‘reduce, then freeze’ since it hinges on how one defines ‘freeze.’” There may have been “understandable concerns about our using the term ‘freeze’” but to Baker that should “not matter…provided we define [freeze] to mean what we want.” As long as the White House controlled “action on the issue, we still hold most of the cards. We should play them to win the propaganda battle since that is the only thing to be won or lost here.” Clearly, the Reagan administration was not going to entertain any real nuclear freeze program, but instead sought to court the freeze’s peaceful message for political gain.105

By April of 1982 and Ground Zero Week, the freeze movement consumed Clark’s attention. In an April 26 memo, Clark dictated that the Secretaries of State, Defense, and the directors of Arms Control and International Communications Agencies, coordinate efforts to slow the “nuclear freeze movement and the accelerating growth of anti-nuclear sentiment in this country.” That effort included the creation of public affairs fact lists and “Q and A” sheets; an updated inventory of White House agency resources and sympathetic private sector resources for public appearances; a legislative calendar of relevant hearings; and outlines for domestic and international press strategies to counter the freeze movement’s momentum. The goal, then, was to prepare Reagan to co-opt the

105 Ibid.
freeze movement’s message of peace, all the while maintaining a position of nuclear strength against the Soviets.

The White House now pursued “efforts to enhance communication of the President’s philosophy on arms control.” According to David Gergen, that philosophy should “emphasize the President’s role as a peacemaker” while at the same time not letting “the Russians off the hook.” It was imperative that this media campaign “focus on concrete policy and new initiatives; otherwise, our ‘peace offensive’ will be met with cynicism.” While the President made this philosophy clear during his weekly radio address, other officials should “hammer this theme in the immediate future.” To coordinate this new peaceful PR message, the White House would be “passing the word to our own people and briefing outside organizations and individuals on a priority basis.”

Clark emphasized that the White House move beyond “a ‘we/they’ syndrome, wherein we become antagonists with Roger Molander of Ground Zero.” Gergen agreed, but also suggested that the White House “provide a message with an appeal similar to Ground Zero. “The themes must be kept basic,” stressed Gergen, but the peace offensive should also be widespread. A highly coordinated publicity campaign, including “public speeches, television appearances, editorial board conferences, media interviews, and group meetings” would paint Reagan as a peacemaker, not warmonger.106

Clark stressed the immediacy of a White House response to the growing antinuclear movement, but he also cautioned that administration officials not appear alarmed at the size and power of the movement. White House spokespersons should

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engage in “communications with the activists,” yet “the fact that the activists have our
attention should be kept secret.” If they appeared concerned but not panicked, the
administration could co-opt the antinuclear movement’s sense of urgency and
“demonstrate that we, too, are activists—seeking resolution to the same concerns.” As the
White House organized “to deal with the problem more coherently, we should make it
known without fanfare that we are doing so, rather than have the media leap on the
inevitable leak to portray us as secretive and defensive.” Clark also suggested “high-level
meetings…with people like the Physicians for Social Responsibility group [and Roger]
Molander.” These meetings would convey to “the public that we are paying attention to
the national message of concern.” These meetings would do little to “reassure or convert
the participants,” but more importantly they would “help reassure the concerned public as
to our good faith and reasonableness.”

Demonstrating this good faith, reasonableness, and above all Reagan’s philosophy
of maintaining peace should be all transparent characteristics of this media campaign.
The President would engage in a “series of ‘Quiet [White House] Evenings’ (ala [sic]
Johnson)” in which “thoughtful leaders of the peace movement” could meet and discuss
nuclear issues with the President. Reagan should “utilize every opportunity to have
visuals which show [the President] to be the concerned, caring individual he is.” The
President should frequently reaffirm his peaceful stance to “members of the foreign press
prior to his European trip” to acknowledge but downplay the antinuclear protests
throughout that continent. Finally, Reagan should consult with a bi-partisan figure
“supportive of administration philosophy,” such as Henry Kissinger. In coordination with

\[107\] Ibid.
the President, a centralized speakers bureau would keep busy “tracking…public forums and media opportunities” and provide a “speaker kit to include talking points, speech inserts, speeches, graphics and handouts,” along with “mailing list for appropriate materials” and “briefings for speakers.”

The plan was set into motion so that the White House could have a media presence to compete with Ground Zero Week. At the tail end of “Ground Zero Week,” Clark issued another memo in which he expressed his belief that “the dimensions of the nuclear freeze movement, Ground Zero Week, the Administration’s difficulties over the defense budget” and other issues “require us to address the public affairs issues connected with defense and arms control in the most comprehensive fashion possible, and at the highest level.” In his detailed public relations plan, Clark delineated the specific questions each department should answer, such as: “What is our present nuclear strategy? What does our strategy say about deterrence, war, winning, etc.?” and “What would be the impact on arms control of a reduced reliance on nuclear deterrence/weapons?” In other words, Clark was addressing the very questions posed by Nuclear War, Freeze!, and Fate of the Earth. To battle these critiques, Clark hoped to provide American readers with an authoritative, sympathetic White House publication: “We should be looking into the possibility of taking publications, such as A Chronology of United States Arms Reduction Initiatives, 1946-1982 and changing it slightly to make it Congressionally acceptable for U.S. distribution. Publications such as these could probably be sent out under State auspices.” This suggestion reveals Clark’s awareness of antinuclear literature’s influence on the growing nuclear freeze movement. He wanted to

108 Ibid.
compete with books like *Fate of the Earth* and *Nuclear War* with a paperback more conciliatory of the U.S. arms control policies. Ultimately, the United States International Communication Agency (USICA) published *In Search of Peace: American Initiatives, 1946-1982*. As Clark suggested, this publication reflected the White House’s new, more peaceful posture. Guided by Clark’s suggestion, and hoping to counteract the popularity of pro-freeze literature, the White House published its own paperback laden with the language of the antinuclear movement it hoped to contain.\(^ {109}\)

In the wake of “Ground Zero Week,” the White House created a special “Nuclear Arms Control Information Policy Group” that would sustain White House propaganda against the freeze movement in the months—and if need be years—to come. Co-chaired by National Security Adviser Robert McFarlane and William Clark, this group was devoted to battling critical antinuclear messages from groups like Ground Zero. McFarlane and Clark would ensure “that the [White House] has a final chop on all public affairs materials” on nuclear issues. That “final chop” included statistics emphasizing the divisions in the freeze-movement’s support as well as Americans’ widespread “distrust of Soviet adherence to” a freeze resolution. Indeed, public “perception of Soviet superiority in nuclear forces and distrust of Soviet intentions serve to diminish support for an immediate nuclear freeze.” Clark and McFarlane also believed that “the general public [was] more inclined to believe that the nuclear freeze issue [remained] ‘too complicated for the public’…even [for] pro-freezers.” With a concerted, and widespread media

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campaign, the White House could successfully downplay the freeze movement’s popularity and appeal.\textsuperscript{110}

The creation of this special “Nuclear Arms Control Information Policy Group” suggests that by 1982 the White House had little intention of altering its arms buildup policies. Instead, it shows that Clark and McFarlane were anticipating future attacks in antinuclear literature, and they intended to contain these messages in the years to come. This group would coordinate publicity campaigns at both the national and local levels. In other words, the White House recognized the appeal of local and state freeze resolutions, and would use another cultural medium, “particularly television,” to reach the broadest audience possible. In the wake of antinuclear protests and literature, Clark and McFarlane’s group was kept busy. From late April until early November 1982, the White House had scheduled over 250 media events ranging from network news programs, late night news programs, and major radio markets. Combined, this media effort constituted a “coordinated and targeted approach…that pertain[s] to the arms control program,” one that aimed to draw support away from the freeze movement and towards the President’s renewed efforts at arms control. Antinuclear cultural activists had criticized Reagan’s arms buildup, and had contributed to the largest antinuclear protests in U.S. history. As evidenced by the creation of the “Nuclear Arms Control Information Policy Group,” the White House would not let antinuclear paperbacks seriously challenge their foreign policies again.

Conclusion

These paperback examples of antinuclear cultural activism alarmed the White House because they were so popular, but why did these books outsell their competitors? In part, their success stemmed from accessible prose. Each of these books eschewed the specialized language which plagued nuclear nonfiction for decades. Cold War nuclear strategists such as Herman Kahn, Henry Kissinger, Bernard Brodie, and Thomas Schelling, created a specialized nuclear jargon that dehumanized the devastating affects of nuclear weapons. They spoke of nuclear devastation and genocide in coded terms such as “throw weights,” “overkill,” and “megadeaths,” and peppered their prose with atomic acronyms such as MAD (Mutually Assured Destruction), ICBM (Intercontinental Ballistic Missile), IRBM (Intermediate Range Ballistic Missile), SALT (Strategic Arms Limitation Talks), and MIRV (Multiple Independently-Targetable Reentry Vehicle). This specialized nuclear language allowed nuclear strategists to engage in conversations that took on an almost theological feel. Not surprisingly, most lay readers did not find this abstruse lexicon appealing, these books—while extremely influential in policy and academic circles—did not sell well.  

_Nuclear War, Freeze!, and Fate of the Earth_ each became bestsellers because they helped to “democratize the nuclear debate, spearheading a revolution of sorts against the rhetorical tyranny of the politicians and the experts.” When these antinuclear books

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addressed the acronym-laden prose of nuclear strategists, it was only to explain this apocalyptic alphabet soup to non-specialists. The approach worked. By mid-March 1982, *Time* hoped to interview National Security Advisor William Clark on the “[freeze] movement and its implications.” Clark would later, and perhaps begrudgingly, admit the surprising effectiveness of these accessible antinuclear books: “The broad public is being awakened to the problem that specialists in and out of the government have dealt with for years [and] they are scared to death at the prospect of nuclear war.”

Ultimately, the freeze movement succeeded in getting a proposal introduced in Congress. Spurred on by the Hatfield/Kennedy publication *Freeze!*, Congressional leaders worked to build government support for a platform, one that the Reagan administration publicly considered but privately opposed. Once the nuclear freeze movement left the amorphous realm of public opinion and entered the process of legislative debate, its weaknesses became apparent; the freeze was a far better grassroots rallying cry than viable legislative proposal. Still, White House efforts to wage a media war and co-opt the freeze’s peaceful message slowed the movement’s momentum. In the wake of Ground Zero Week—an event popularized by antinuclear literature—the White House created its own department to manage and contain antinuclear media messages.

For a brief time, publishers’ efforts to push antinuclear literature did much to popularize and bring together freeze activists. After the example set by *Unforgettable Fire*, the surge sparked by *Fate of the Earth*, and political payoff promised by *Nuclear

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War and Freeze!, bookstores discovered that most antinuclear paperbacks simply did not sell. For example, according to one book buyer for Minneapolis-based B. Dalton Booksellers, “We probably bought about 40 different books on the subject, but we bought modest numbers of all but two or three, and that’s how they’ve been selling – modestly.” Dalton stores nationwide reported similar dismal sales. Chain stores had less success than college bookstores. According to a buyer for the State University of New York at Brockport bookstore, early 1980s atomic anxiety led the university to require “that for general-education courses all entering freshmen have to buy Nuclear War: What’s In It For You?” The university applied no such requirement for the group’s 1983 follow-up mass market paperback entitled What about the Russians—and Nuclear War? After the White House focused its efforts to contain the criticisms in the literary market, antinuclear paperback activism proved to be short-lived.113

There is a connection between the decline of antinuclear book sales and Reagan administration efforts to contain their critical messages. Popularity of these antinuclear books declined just as media coverage of Reagan’s peaceful Strategic Arms Reduction Treaty (START) dominated news coverage. START provided the administration with an effective way to sell its own vision of arms control and thereby co-opt the freeze’s peaceful message for the rest of 1982. By 1983, new atomic issues, such as Reagan’s Strategic Defense Initiative, had refocused antinuclear debates and taken the spotlight away from pro-freeze paperbacks. Real reductions in nuclear arsenals, however, would not occur until the 1987 Intermediate-Range Nuclear Forces Treaty (INF).

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Before START and before INF, in the atomically intense days of 1982, antinuclear paperbacks flew off the shelves and into the hands of millions of frightened Americans who had little hope that their President would pursue peaceful policies. Thanks to publishers’ efforts, thousands of antiwar activists read these politically charged works. These antinuclear paperbacks also helped to increase the size of early 1980s antinuclear protests. The images in *Unforgettable Fire* started this trend. Its use of amateur images provided publishers with an opportunity to gauge public interest in antinuclear nonfiction. Jonathan Schell’s *Fate of the Earth* was even more successful. This landmark work, a rare combination of antinuclear political propaganda and bestseller, became the antinuclear bible for the freeze movement. The final two books, Ground Zero’s *Nuclear War: What’s in it For You?* and the freeze campaign’s *Freeze!*, acted both as “primers” for lay readers and as organizational tools by which each group could organize activism.

Some historians have criticized these antinuclear books for distilling complex arguments for America’s “lowest common denominator.” If the antinuclear paperback books of Reagan’s first term are any indicator, there was a clear consumer choice for accessible prose over technical expertise. To enter the larger nuclear debate, authors made a tradeoff: publicity for credibility. Jonathan Schell’s *Fate of the Earth* came the closest in striking a balance between expert opinion and accessible prose. Still, publishers’ efforts put three antinuclear nonfiction books on the bestseller list—a remarkable achievement and a testament to the nuclear fear of Reagan’s first term. Throughout the early 1980s, experts in the fields of medicine, nuclear power, arms control, and even atmospheric science all attempted to influence politics through
paperbacks, but these books met only limited success. Still, the antinuclear book boom of 1982 provided the opening salvo in a media war against Reagan’s arms buildup that would continue throughout the President’s first term. It would not take long for other antinuclear cultural activists—including film directors, musicians, and celebrity scientists—to build on the example set by antinuclear literature, join the public antinuclear debate, and contribute to 1980s atomic culture.\textsuperscript{114}

\textsuperscript{114} Hogan, \textit{The Nuclear Freeze Campaign}, 4.
CHAPTER 4: BRITISH POP, MTV, AND TRANSNATIONAL ANTINUCLEAR PROTEST MUSIC

Mr. Reagan says we will protect you; I don't subscribe to this point of view.

- Sting, “Russians,” 1985

During the Second Cold War, American television, literature, film, and popular music became infused with antinuclear messages. Antinuclear cultural activism peaked during Reagan’s first term, with the apex of antinuclear pop culture occurring during the years 1982-1984. This peak occurred not just in America; Europeans experienced similar heightened levels of atomic anxiety. In fact, nuclear fear was far more prolonged in the United Kingdom than in the United States. With newly deployed “Euromissiles” in their own backyards, many concerned Britons believed that if a nuclear war started, it would start with them. Throughout much of the 1980s, British pop musicians created a transnational form of antinuclear cultural activism that utilized a new medium—the music video—to criticize both U.K. civil defense propaganda and U.S. president Ronald Reagan. The Euromissile Crisis prompted many pop stars to spread antinuclear messages to Americans through Music Television (MTV). From 1980 until 1987, British antinuclear pop topped the Billboard charts. These songs and music videos reflected heightened levels of nuclear fear and acted as constant reminders to Europeans and Americans of the Second Cold War nuclear threat. Archival research suggests that the Reagan administration paid little attention to music videos. Still, these videos contained important antinuclear political messages. They remain important reminders of the reach

that Reagan’s Second Cold War initiatives had across the globe. These songs and videos had a goal: to persuade Americans that their president was a dangerous leader.

Numerous 1980s musicians from a wide variety of styles alluded to the Second Cold War nuclear threat. While numerous punk, folk, metal, and “underground” bands provided interesting commentary on the 1980s nuclear scare, their work lies outside the focus of this chapter. Instead, this chapter examines British “pop” artists in the most literal sense. These artists’ records sold in the millions and their videos received heavy rotation on MTV. Artists including Big Country, David Bowie, Frankie Goes to Hollywood, Genesis, Sting, Tears for Fears, Ultravox, Roger Waters, and XTC created antinuclear pop that conveyed a uniquely British perspective on civil defense propaganda, the Euromissile crisis, and President Reagan’s foreign policies. In short, while there are many more examples of antinuclear pop music during the Second Cold War, this chapter examines the work of only the most popular—and therefore the most widely heard—British musicians who, from 1981 until 1986, engaged in their own brand of antinuclear cultural activism.

Why did antinuclear pop proliferate from Great Britain and not America? In 1985, *New York Times* journalist Stephen Holden, commenting on nuclear themes in British pop, noted that while “pop music…isn’t a scientific sampling of public opinion…it is one index of the mood of young people. And, according to pop music, British youth are more anxious than Americans about nuclear issues.” Holden was right. In 1985, for example, American artists Prince topped the charts with his party-till-you-die singles “Let’s Go Crazy” and “1999.” U.K. charts, however, featured more serious antinuclear anthems such as Frankie Goes to Hollywood’s “Two Tribes” and Tears for Fears’ “Mother’s
Talk.” Holden concluded that “if the sales of pop records are any kind of indicator of youthful conviction, one might conclude that there is a fundamental difference in the American and British outlooks. American youth would seem to feel so powerful and prosperous that its pop culture can afford to be oblivious to real nuclear peril. Less economically robust, and with a far less rosy future, British youth are expressing their sense of vulnerability.” Yet more than economics influenced British pop songs; a closer examination of these songs’ lyrical content and their videos’ imagery reveals heightened levels of atomic anxiety.\footnote{Stephen Holden, “Critic’s Notebook: Rock Music, or Songs on the End of the World,” \textit{New York Times} (Thursday, January 17, 1985), 16.}

The emergence of politically-charged British antinuclear pop during the Euromissile crisis is telling. While atomic themes had long existed in popular music, they seldom achieved the chart success of these U.K. pop artists. Atomic-themed pop first appeared in the 1950s, a decade marred by aboveground nuclear testing, civil defense propaganda, and bomb shelters. Many 1950s rock, blues, and country songs contained nuclear themes; the Sons of the Pioneers’ “Old Man Atom” or Hank Williams’ “Atom and Evil” are two examples. During the 1960s, atomic themes largely disappeared from pop songs. There were some anthems with antinuclear themes—such as Barry McGuire’s “Eve of Destruction”— but the decade’s protest music largely fixated on U.S. military involvement in Vietnam. By the 1970s, American pop mostly abandoned overt political messages, and as the 1980s approached AM radio gave way to rock-oriented FM stations. Disco dominated the club scene, and punk was on the rise. There was little to be heard in
the way of atomic pop. The most notable exception came from German singer Nena and her 1985 antinuclear anthem “99 Luftballoons.” Other 1980s artists alluded to nuclear themes—such as The Clash’s “London Calling” or Rush’s “Manhattan Project”—but these songs lacked explicit antinuclear messages. So, while the 1980s marked a return of atomic themes in popular music, few antinuclear songs actually topped the charts. It took a select group of U.K. pop artists to create a uniquely antinuclear—and catchy—Second Cold War soundtrack.

Three factors contributed to the rise of British antinuclear pop music. First, United Kingdom Civil Defense (U.K.CD) propaganda, with its unrealistic suggestions on how to survive a nuclear attack, led many British pop artists to criticize the organization. Second, the rise of MTV, a network which in its early years relied heavily on British “new wave” acts to fill its daily play lists, provided British pop groups with a new medium by which to spread their antinuclear messages. Finally, deteriorating diplomatic relations between the United States and the Soviet Union—and especially the Euromissile Crisis—led many Britons to believe that a Soviet-American nuclear war might start in their own backyards. In response, antinuclear protests erupted throughout Great Britain, and many U.K. pop stars reflected this growing antinuclear sentiment in pop-protest songs.

For other examples of 1950s atomic songs, see Like an Atom Bomb: Apocalyptic Songs from the Cold War Era Buzzola, February 23, 2004; see also Atomic Platters: Cold War Music From the Golden Age Bear Family, September 6, 2005; on atomic anxiety in popular culture, see Allan Winkler, Life Under a Cloud: American Anxiety About the Atom (Oxford: Oxford University Press, 1993); Scott C. Zeman and Michael A. Amundson (eds.), Atomic Culture: How We Learned to Stop Worrying and Love the Bomb (Denver: University of Colorado Press, 2004); on early Cold War atomic culture, see Paul Boyer, By the Bomb’s Early Light: American Thought and Culture at the Dawn of the Atomic Age (New York: Pantheon, 1985).

roots of this unique brand of 1980s British antinuclear pop music date back to the early postwar era.

The Roots of 1980s British Antinuclear Pop

Since the Second World War, Great Britain and the United States have maintained a “special relationship.” These nations shared military intelligence, military technology, and an alliance within the North Atlantic Treaty Organization (NATO) to ensure nuclear deterrence throughout the Cold War.\(^{119}\) Despite this close relationship, these nations differed in their approaches to nuclear civil defense. Differences in geography and topography, as well as different experiences during WWII, led to this split. American civil defense programs emphasized relocation away from urban areas, but in Great Britain such widespread relocation plans were not feasible. In the 1950s Americans experienced a brief backyard bomb shelter craze, while Great Britain emphasized urban communal shelters.\(^ {120}\) In America the onus of nuclear protection resided with private citizens, while in the U.K. the government sought to recruit civilians into civil defense corps. American policymakers, wary that U.S. initiatives too closely resembled Soviet methods of nuclear civil defense, deemphasized communal fallout


shelters. Put simply, U.S. civil defense largely became interwoven with consumption and the private sphere of 1950s American culture, while British plans mimicked World War II calls for volunteerism and centralized, urban shelters.¹²¹

In 1952, British nuclear weapon testing increased public unrest and sparked public protests. In response, U.K. civil defense propaganda sought to quell atomic anxiety and maintain government support. Pamphlets, booklets, and films portrayed a British government not obsessed with a nuclear arms buildup, but with saving lives.¹²² In January 1963 the British Home Office (BHO)—the ministry responsible for civil defense—published *Advising the Householder on Protection against Nuclear Attack.* This pamphlet suggested numerous methods on how to survive a nuclear attack: citizens should construct shelters in the innermost rooms of urban dwellings, wear “stout shoes” and “warm overcoats” to protect against radioactive fallout, and “whitewash” windows to “greatly reduce the fire risk by reflecting away much of the heat” from an atomic blast. In an era of larger and more powerful thermonuclear weapons, it is doubtful that many Britons took these suggestions seriously. *Advising the Householder* marks the beginning of British skepticism of government civil defense propaganda.¹²³

British civil defense propaganda abated in the 1970s, but the ascension of Margaret Thatcher to British Prime Minister in 1979 led to a resurgence of U.K. civil defense programs. She agreed with U.S. presidential hopeful Ronald Reagan that a robust


¹²² On rationales for government-led British civil defense, see Matthew Grant, *After the Bomb*, 1-9.

deterrent was the best defense against the Soviets. Thatcher also called for a reappraisal of civil defense plans.¹²⁴ British atomic anxiety intensified when, in 1980, Reagan won the U.S. presidential election. Thatcher and Reagan shared many political convictions. Both leaders favored including economic deregulation, reductions in government, and arms increases. Regarding foreign policy, both leaders disliked détente and sought to bolster western nuclear arsenals. As Thatcher’s praise of the president intensified, so did Britons’ skepticism of Reagan. Many viewed him as a cowboy figure—a dangerously trigger happy leader with a penchant for bellicose rhetoric and the American nuclear arsenal at his disposal.¹²⁵

The introduction of American nuclear warheads onto British soil further increased nuclear fear throughout Europe. The Euromissile controversy had been swelling for some time when these American nuclear weapons finally reached Great Britain in November of 1984. U.S. Pershing II intermediate-range nuclear missiles aimed to counterbalance the Soviet SS-20 intermediate-range missiles already scattered across Warsaw Pact countries. With Soviet nukes aimed at European capitals, the deployment of U.S. missiles increased British nuclear fear and renewed their antinuclear resolve. If nuclear war were to erupt, many believed that it would begin in Great Britain. The Euromissile standoff capped


years of deteriorating diplomatic relations between the superpowers, and British nuclear fears were understandably high.  

In the wake of deteriorating superpower diplomatic relations, British civil defense propaganda did little to assuage nuclear fear. In 1979 Margaret Thatcher asked for a re-evaluation of British civil defense policies and prompted a modernization of the “United Kingdom Warning and Monitoring Organization” (U.K.WMO) and the “Wartime Broadcasting Service.” By 1983, new civil defense regulations called for more emergency centers in case of a nuclear attack. The most important piece of British civil defense propaganda of the Cold War, however, was Protect and Survive. An informational series on how to survive a nuclear attack, Protect and Survive films were especially disturbing. As a narrator reads in a cool, controlled monotone, elementary graphics—such as paper cutouts of houses being destroyed—illustrated the pernicious effects of atomic blasts and radioactive fallout.

If Protect and Survive aimed to calm the British public, it failed spectacularly. For Britons, being told that in the event of a thermonuclear attack everything would be alright—especially through graphics reminiscent of a grade school art project—was both perverse and insulting. Behind this façade of optimism, the British government was planning for a much darker outcome. British civil defense officials were less worried that citizens whitewash windows or wear stout shoes and more concerned about a mass “disposal of the dead.” While declassified government memoranda would not prove this


127 An online archive of British Civil Defense propaganda can be found at http://www.atomica.co.uk/ (accessed July 27, 2011).
grim reality until 2004, in the 1980s British citizens remained skeptical of U.K. civil defense plans.128

Concerned Britons criticized *Protect and Survive* in print media, public demonstrations, and in film. In 1980 the British historian E.P. Thompson issued *Protest and Survive*, a rebuttal to the Home Office’s publication. Grassroots antinuclear demonstrations grew throughout Great Britain and much of Europe. The 1984 BBC movie *Threads* aroused controversy through its graphic portrayal of nuclear war. The film depicted the fate of British families who, despite adhering to their government’s advice, slowly perished from radiation poisoning and societal breakdown. *Threads*, another British example of antinuclear cultural activism, suggested that many British citizens viewed civil defense propaganda as frightening, unrealistic, and ultimately useless. In the 1980s British musicians expressed similar skepticism and spread their antinuclear views through pop music’s newest medium, MTV.129

**MTV: The Conduit for British Antinuclear Protest Music**

The emergence of MTV in 1981 coincided with the Reagan presidency and the fears of the Second Cold War. With its near meteoric rise to cultural preeminence, MTV became an iconic staple of 1980s popular culture. Yet the channel had humble beginnings, and the videos it played nonstop, twenty-four hours a day, had roots much earlier than the Reagan era. Still, it is a curious historical coincidence that the largely

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youth-driven medium of music videos came at a time of heightened atomic anxiety.

Largely uncharted in format and vague in artistic boundaries, early music videos provided adventurous artists a new medium by which to sell records, but also to sell political messages.

By the time MTV debuted on August 1, 1981, music promotional videos had been around for decades. In the 1950s and 1960s artists frequently lip-synched for television performances. There were, however, more notable and more adventurous attempts at music promo videos. For example, D.A. Pennebaker’s 1967 documentary Don’t Look Back, in which Bob Dylan drops cue cards in synch to his song “Subterranean Homesick Blues,” was a precursor to modern music videos. Also, the Beatles’ psychedelic video for “Strawberry Fields” was another early, surrealistic attempt at a promo video. Yet, by and large few artists broke away from the miming, play-along format of early promo videos.

In the 1970s, television stations began to play these promo videos during late night. Metropolitan cable markets frequently featured videos after midnight to appease a market of working-class males. Programs entitled “Video Box” and “Hot Tracks” promoted the latest in rock and R&B artists. For Americans unwilling to stay up past midnight to catch the latest music videos—and for those affluent enough to afford emerging media technologies—the Video Cassette Recorder (VCR) could capture these programs for later viewing.\(^{130}\)

Although its rise to culture prominence was fast and decisive, MTV caught many in the music industry off guard. In the early 1980s, few major industry stars had prepared

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for this new channel. Uncertain of its potential, record labels were hesitant to put their established stars on MTV. Instead, they enticed new, provocative acts with artistic flare to test the music channel’s commercial waters, thereby setting the stage for a “second British invasion” during the Second Cold War. Put simply, it was the music industry’s deference which allowed British acts to dominate during MTV’s early years. Music critic Robert Christgau commented that in the early 1980s, music industry leaders “handed the ball to mostly British ‘new wave’ long shots.” MTV’s first video, the prophetically titled “Video Killed the Radio Star,” came from British new wave group The Buggles. Throughout its early years, MTV featured many “appearance obsessed art-school types who were eager to stake some of their Eurodollars on the stateside profits” such as Duran Duran and A Flock of Seagulls. It did not take long for many British acts to capitalize on their newfound fame to spread concerns about the Euromissiles, Protect and Survive, and President Reagan. Many of these antinuclear cultural activists created radio hits, but also—through their music videos—conveyed a uniquely British brand of nuclear fear to an American audience.131

**British Antinuclear Pop Songs and Music Videos**

Progressive rockers Jethro Tull provide an early example of British antinuclear pop. In their 1980 song “Protect and Survive,” singer Ian Anderson mocks British civil defense: “They said: protect and you'll survive, but our postman didn't call / 8lbs. of over-pressure wave seemed to glue him to the wall / E.M.P. took out the radio, flash blinded by the pretty lights / didn't see his bottles fall or feel the warm black rain arrive.” These

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lyrics reveal a nuanced understanding of the details of a nuclear attack: they specifically mention Electro Magnetic Pulses (E.M.P.s), atomic flash, strong winds, and all-clear sirens. Jethro Tull’s “Protect and Survive” suggests that British Civil Defense propaganda did at least inform its citizens of how they might die during an atomic attack, but that such propaganda did little to ease nuclear fears.\footnote{Jethro Tull “Protect and Survive,” \textit{A} (EMI International: September 1980), Compact Disc.}

In 1983 the Big Country song “1000 Stars” also criticized \textit{Protect and Survive}. Scottish-born singer Stuart Adamson sings: “hypnotized by lies in defensive disguise / some say protect and survive / I say it’s over.” Like Jethro Tull’s “Protect and Survive,” “1000 Stars” makes the case that preventative steps offered in British propaganda would have been futile. Although neither “Protect and Survive” nor “1000 Stars” were chart-topping singles, both songs were included on albums that sold well in America and Europe. Jethro Tull’s 1980 album \textit{A} rose to number thirty on the Billboard Hot 200 Album Charts while Big Country’s 1983 album \textit{The Crossing} peaked at number eighteen. “1000 Stars” became a staple of Big Country’s live shows, even during their 1988 tour supporting the politically themed album \textit{Peace in our Time}.\footnote{Big Country, “1000 Stars,” \textit{The Crossing} (Polygram Records, August 1983), Compact Disc. Chart rankings found online at \texttt{http://allmusic.com/album/a-r10382/charts-awards}; \texttt{http://allmusic.com/album/the-crossing-r1845/charts-awards} (accessed July 14, 2011).}

The London-based group Ultravox’s 1984 single “Dancing with Tears in My Eyes” provides another example of antinuclear British pop. The song’s lyrics narrate a vague story of impending nuclear destruction: “It’s five and I’m driving home again / it’s hard to believe that it’s my last time / the man on the wireless cries again / ‘it’s over, it’s over’.” These lyrics convey the futility of trying to survive an atomic attack, although the
song’s video—which portrays death from a nuclear reactor’s failure, and not nuclear weapons—dilutes this theme. Regardless of the type of nuclear destruction the video depicted, “Dancing with Tears in My Eyes” became one of the band’s final hit singles, and Ultravox performed this song at the 1985 televised concert “Live Aid.”

Swindon-based group XTC recorded numerous songs that reflected British nuclear fear and criticized Ronald Reagan. Their 1980 song “Living Through Another Cuba” may contain a minor error—songwriter Andy Partridge mistakenly cites the year of the Cuban Missile Crisis as 1961 instead of 1962—but it still astutely assesses Great Britain’s place in the middle of the Second Cold War: “It's 1961 again and we are piggy in the middle / while war is polishing his drum and peace plays second fiddle / Russia and America are at each other's throats but don't you cry / just get on your knees and pray, and while you're down there, kiss your arse goodbye.” Partridge then predicts a future nuclear stare-down: “This phenomenon happens every twenty years or so / if they're not careful your watch won't be the only thing with a radioactive glow / I'll stick my fingers in my ears and hope they make it up before too late / if we get through this lot alright they're due for replay, 1998.” Partridge later recalled that “‘Living Through Another Cuba’ [was] total nuclear-war paranoia,” and that the song was a critique of Great Britain’s reliance on the United States for protection. “Reagan was making all the wrong noises [and I] was concerned that…mutually assured destruction seemed to be getting more and more intensely possible. Britain had no kind of power. I was worried that we were heading toward the nuclear precipice.” The XTC album *Black Sea*, on

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which “Living through Another Cuba” appeared, reached number 41 on the Billboard Album Top 200 Charts.\(^{135}\)

XTC’s criticisms of Reagan continued with the 1984 song “This World Over.” Partridge specifically suggests that President Reagan, that leader “with a famous face,” could trigger a nuclear war, and paints a bleak picture of London after a nuclear war:

Will you smile like any mother, as you bathe your brand new twins?
Will you sing about the missiles, as you dry odd numbered limbs?
Ah well, that’s this world over; ah well, next one begins
Ah well, that’s this world over; you sadly grin
Will you tell them about that far off and mythical land
About their leader with the famous face?
Will you tell them that the reason nothing ever grows in the garden anymore; is because he wanted to win the craziest race?
Will you smile like any father, with your children on a Sunday hike?
When you get to a sea of rubble, and they ask “What was London like?”
You tell them, “Ah well, that’s this world over.”
Will you tell them about that far off and mythical land
And how a child to the virgin came?
Will you tell them that the reason why we murdered everything on the surface of the world; so we could stand right up and say we did it in his name?
That’s this world over; or so it seems
That’s this world over; the end of dreams

Partridge’s lyrics examine the devastating effects of nuclear war, including radioactive mutations, ecological destruction, and the madness of the arms race. With lyrics this explicit, there was little need for an equally descriptive video. Instead, the promotional video for “This World Over” simply showed XTC playing along to the song. “This World Over” has since been included on a number of XTC “best of” collections, and few

songs of the era could match Partridge’s lyrical description of a post-apocalyptic world.\textsuperscript{136}

British dance band Frankie Goes to Hollywood criticized Reagan throughout their 1984 album \textit{Welcome to the Pleasuredome}. The band’s provocative first single “Relax” became an MTV staple due to an innovative marketing campaign that included popular tee-shirts which read “Frankie Says…” or “Relax.” The band’s latent homoeroticism was a conscious challenge to 1980s cultural conservatism. The group was equally critical of President Reagan; \textit{Welcome to the Pleasuredome} includes quips from a Reagan impersonator who portrays the American president as a bumbling cowboy ill-suited to lead the free world.\textsuperscript{137} Yet the band’s antinuclear politics shine through in their single “Two Tribes.” The song refers to Reagan as “cowboy number one; a born-again poor man’s son” who can be heard “on the Air America.” The song’s chorus distills the complexities of the superpower nuclear standoff into a catchy hook—“When two tribes go to war / a point is all that you can score”—while the verse reminds listeners that “We got two tribes / we got the bomb.” Cover art for the “Two Tribes” single included a photo of Reagan and a brief quote from the President on the value of freedom—followed by a rundown of the global nuclear arsenal, complete with numbers for superpower land-based ballistic missiles, submarine-launched ballistic missiles, strategic bombers, nuclear warheads, and total megatons per nation. The juxtaposition was clear and accurate: by 1984 Reagan may have preached peace, but he was still escalating the arms race.\textsuperscript{138}

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\textsuperscript{137} Frankie Goes to Hollywood, \textit{Welcome to the Pleasuredome} (Repertoire, 1984), Compact Disc.
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The “Two Tribes” video is equally critical of British civil defense propaganda and President Reagan. It begins with footage of Richard Nixon, John F. Kennedy, and other early Cold War icons. Next, the video incorporates audio clips from *Protect and Survive*, including a nuclear attack air-raid siren. As the song’s dance beat intensifies, a voice-over from *Protect and Survive* cautions “you and your family must take cover.” Then, a mock battle between actors portraying Reagan and Soviet Premier Konstantin Chernenko ensues. They are quickly surrounded by reporters and world leaders who cheer on as the superpowers duke it out. As they exchange blows, dust flies up from the ground, a likely allusion to nuclear fallout. Soon, everyone joins in the fight, and the video concludes with the world exploding. The “Two Tribes” video helped to propel the song to number one on the U.K. charts and the song achieved gold status in only seven days. In America, “Two Tribes” reached number three on the Billboard’s Dance Music charts.\(^\text{139}\)

With his solo 1986 single “Russians,” British pop star Sting crafted one of the most pointedly antinuclear pop songs in history. “Russians” urges Second Cold War tolerance and empathy to avoid nuclear apocalypse. Sting sonically symbolized such coexistence by adopting a musical motif from Russian composer Sergei Prokofiev. Sting’s lyrics are direct. He soberly assesses Cold War nuclear fear and accuses both former Soviet leader Khrushchev and then-U.S. President Reagan with nuclear saber-rattling.

In Europe and America, there's a growing feeling of hysteria Conditioned to respond to all the threats in the rhetorical speeches of the Soviets. Mr. Khrushchev said we will bury you; I don't subscribe to this

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point of view. It would be such an ignorant thing to do if the Russians love their children too.

How can I save my little boy from Oppenheimer's deadly toy
There is no monopoly of common sense, on either side of the political fence. We share the same biology, regardless of ideology.
Believe me when I say to you, I hope the Russians love their children too.

There is no historical precedent to put the words in the mouth of the President. There's no such thing as a winnable war, it's a lie we don't believe anymore. Mr. Reagan says we will protect you; I don't subscribe to this point of view. Believe me when I say to you, I hope the Russians love their children too.¹⁴⁰

The song’s music video included a notable symbol of atomic anxiety: the ticking “Doomsday Clock,” an image made famous through The Bulletin of Atomic Scientists.
The Doomsday Clock has gauged the state of global nuclear tensions since the early Cold War, its second hand’s proximity to midnight representing how close the world is to nuclear war. In the “Russians” video, the doomsday clock is quickly approaching midnight, a reflection of increasing Second Cold War tensions. Sting’s timely antinuclear anthem proved popular: “Russians” peaked at number 16 on the Billboard Hot 100 charts and would later grace Sting’s “best of” collection.¹⁴¹

British progressive rock group Genesis provided another iconic antinuclear video with their 1985 hit “Land of Confusion.” The song rose to number four on the Billboard Hot 100 charts in part because of its memorable video which featured puppets from the British comedy show Spitting Image. The video’s protagonist, a puppet-Ronald Reagan, dreams of a world spinning dangerously out of control. The video includes cameos from

other Cold War political leaders including puppets of Thatcher, Mikhail Gorbachev, and the Ayatollah Khomeini. At the video’s conclusion, Reagan awakes from his nightmare and reaches for the button to summon his nurse, but he mistakenly hits the “nuke” button instead and triggers a nuclear launch. Genesis’s video for “Land of Confusion” reinforced British views of Reagan as an aged, dithering, and dangerous president; it also earned Genesis a Grammy for “Best Concept Video.”

In 1985 Tears for Fears released Songs from the Big Chair, an album influenced by the Euromissile crisis. According to lead singer Roland Orzabal, the hit single “Shout” was about “making your opinions known. One thing that disturbed and frightened an awful lot of people last year [was] the installment of American nuclear weapons in England.” The band’s next single “Everybody Wants to Rule the World” summed up, for many, the Second Cold War contest for military and ideological hegemony. The band’s most explicit antinuclear anthem, however, was their 1986 single “Mothers Talk.” “Mother’s Talk” is a plea for superpower peace. The line most repeated in the song is “we can work it out,” and later lyrics reference apathy towards an increasingly dangerous nuclear world: “Some of us are horrified, others never talk about it, but when the weather starts to burn, then you’ll know that you’re in trouble, follow in the footsteps of a funeral pyre, you were paid not to listen now your house is on fire.” According to Orzabal, the song represented his angst over the Euromissile: “Right about the time I was finishing the


143 Orzabal quote found in Peter Standish, “Tears for Fears: Big Hits from the Big Chair” in Gavin Report (July 17, 1985), 13-14.

144 Tears for Fears, “Mothers Talk,” Songs from the Big Chair (Polygram Records, February 17, 1985). Compact Disc.
lyric, the American nuclear missiles were being brought into England and a lot of people were quite scared about it—I certainly was—and therefore [the song] took on a nuclear flavor.”  

The timeliness of the Euromissile crisis likely influenced the band to release “Mother’s Talk” as the lead single in Great Britain, yet the song and its accompanying videos underwent different reincarnations before reaching America. The song’s initial U.K. video was a rushed production. It consists of stock footage representing world events—including the Olympics—followed by the band lip-synching outdoors. Cut scenes show Orzabal reading newspapers that symbolically burst into flame, thereby insinuating that world events are escalating out of control. In the United States, however, “Mother’s Talk” was the band’s fourth single after “Shout,” “Everybody Wants to Rule the World” and “Head over Heels.” These were all huge American hits, and Tears for Fears capitalized on their newfound U.S. popularity. For the song’s American release, the band re-mixed “Mother’s Talk” to have a harder rock edge and an overtly antinuclear video.

The U.S. video for “Mother’s Talk” depicts a British family clad in 1950s-era clothing. The video shows global events spiraling out of control: television images flicker with mushroom clouds and newspaper headlines suggest that nuclear attack is imminent. The dutiful father takes action and follows the advice of Protect and Survive. This comparison is made clear in the “Mother’s Talk” video, which incorporates numerous

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145 Tears for Fears: Scenes from the Big Chair. Shock Exports, released August 2, 2005, DVD.

146 The original U.K. video can be found online at http://www.youtube.com/watch?v=R9cS7LaEAYY (accessed July 14, 2011).
images from U.K. civil defense pamphlets. For example, as the father erects a lean-to in his house, a cut-screen shows the actual *Protect and Survive* image of an inner refuge. The family follows other civil defense suggestions, as well. They collect canned goods, whitewash their windows, and even store away their dog. Of course, these steps prove to be futile. At the video’s conclusion, the family smiles and waves as the screen fades to white. The bomb has dropped; the family has been incinerated. Even with this bleak outcome, the U.S. video for “Mothers Talk” received heavy MTV rotation and peaked at number 27 on the Billboard Hot 100 charts.147

Image 4: Screen captures from Tears for Fears’ “Mother’s Talk” U.S. video.

Roland Orzabal attributes one lyric in “Mother’s Talk”—“when the wind blows”—to a 1982 antinuclear graphic novel, Raymond Briggs’ *When the Wind Blows*.

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147 Tears for Fears, *Songs from the Big Chair*. Polygram Records, February 17, 1985; Billboard chart rankings can be found at [http://allmusic.com/artist/tears-for-fears-p5607/charts-awards](http://allmusic.com/artist/tears-for-fears-p5607/charts-awards) (accessed July 27, 2011); The “Mothers Talk” video was in “Power Rotation” on MTV according to *Billboard Magazine* Vol. 98, No. 17 (April 26, 1986), 58.
Briggs wrote *When the Wind Blows* after viewing a BBC program, *Panorama*, examining civil defense. Raymond Briggs was appalled by such propaganda. He detested the “government optimism that [U.K.CD] put out on the surface,” about surviving nuclear war. *When the Wind Blows* is a criticism of such estimates. It tells the tale of Jim and Hilda Bloggs, an elderly couple based on Briggs’ own parents, who lived through World War II. As Second Cold War nuclear tensions escalate, Jim—remembering the Blitz—takes precautionary measures. He follows British civil defense instructions: he erects a lean-to in his house, bottles water, and stockpiles supplies. When the bombs drop, the Bloggs survive, only to die slowly from radiation poisoning while dutifully waiting for government help that never arrives.

The 1986 animated film version of *When the Wind Blows* provided British musicians with another opportunity to spread antinuclear pop. Former Pink Floyd member Roger Waters penned the film’s score, which includes moody instrumental pieces entitled “What Have They Done?,” “The Russian Missile,” and “The American Bomber.” David Bowie sang the film’s title track while other notable British pop stars such as Hugh Cornwall, Squeeze, Paul Hardcastle, and Genesis contributed to the soundtrack. *When the Wind Blows* stands as one of the last antinuclear efforts by British pop musicians of the 1980s. After nearly half a decade of antinuclear British pop,

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148 Interview from *Tears for Fears: Scenes from the Big Chair*. Shock Exports, released August 2, 2005, DVD.


by 1986 Second Cold War tensions began to abate. The nuclear summit meetings between Reagan and Gorbachev helped to reduce global nuclear fear.

**Conclusion**

With the 1987 Intermediate-Range Nuclear Forces (INF) treaty, which removed Soviet and American nuclear warheads from Europe, British pop music finally abandoned nuclear themes. Yet throughout much of the 1980s, British antinuclear pop conveyed Second Cold War nuclear fears. Because of their proximity to the Euromissile, European nuclear fear lingered longer than American atomic anxiety. British pop musicians crafted songs and videos that revealed Britons’ skepticism of U.K. civil defense propaganda and their wariness of President Reagan. MTV provided British musicians with a medium and a conduit by which to spread antinuclear messages to an American audience. In the process, these musicians created a unique brand of Second Cold War antinuclear protest music that proved to be both political and popular.

By the decade’s end, MTV no longer featured antinuclear protest songs. Instead, European pop began to reflect hopes about an unlikely event: the end of the Cold War. Songs such as the Scorpions’ “Wind of Change” and Jesus Jones’ “Right Here, Right Now” signaled a turn to more optimistic political pop. After the Cold War, many of the artists who criticized nuclear war—including Sting, Tears for Fears, and XTC—shifted their energies towards humanitarian and environmental issues. During the Second Cold War, however, MTV and the Billboard charts acted as barometers of British atomic anxiety. In the 1980s, British pop stars expressed their nuclear fears through American airwaves and television. They provided a transnational form of popular protest music that was critical of British civil defense and an American President. These songs and videos
remain important and revealing cultural reminders of Second Cold War atomic anxiety and British nuclear fear.
CHAPTER 5: SELLING “STAR WARS” IN AMERICAN MASS MEDIA

At the outset of 1983, Ronald Reagan’s reelection remained uncertain. Although it would fail to maintain broad public support into his second term, the nuclear freeze campaign had provided a serious challenge to Reagan’s arms buildup. Additionally, by 1982 the nation was gripped by a severe recession, and Reagan’s often bellicose rhetoric contributed to declining superpower relations. All told, Reagan’s approval ratings had plummeted to a new low: a mere 35 percent by January 1983, a severe drop in the weeks since the 1981 assassination attempt that almost took Reagan’s life. Then on March 8, 1983 Reagan’s “Evil Empire” speech alarmed citizens who hoped for an improvement in superpower diplomatic relations. With such dismal public approval ratings, Reagan needed a game changer, a political move that could halt the freeze movement’s momentum, co-opt its peaceful message, and transform his image from a warmonger to a peacekeeper. On March 23, 1983, Reagan accomplished all three goals in a single speech. In a televised address, the President shared his dream that America could someday defend itself against nuclear attack. Reagan believed that the American “scientific community…those that gave us nuclear weapons,” might one day build a system to render those weapons “impotent and obsolete.” Thus, from his own imagination—and against numerous advisors’ warnings—Reagan launched the Strategic Defense Initiative (SDI).  

Initially christened “High Frontier” by proponents but quickly called “Star Wars” by skeptics, SDI remains one of the most curious political pronouncements of the 1980s.

Historians continue to debate SDI’s role in Reagan’s presidency. Sympathetic scholars see SDI as an important component in Reagan’s Cold War strategy, a calculated move to spend the Soviets into economic ruin. Skeptics view Star Wars as an unachievable program that impeded nuclear abolition and prolonged poor superpower relations. Others assess SDI as a deft political calculation that halted the nuclear freeze movement’s momentum. Regardless of interpretation, scholars agree that SDI was one of the most unexpected, important, and polarizing announcements of Reagan’s presidency.\textsuperscript{153}

Many critics of SDI came from the scientific community—the very group Reagan asked to render nuclear weapons “impotent and obsolete.” One of the most vocal anti-SDI groups was the Union of Concerned Scientists (UCS). Led by Massachusetts Institute of Technology (MIT) physicist Henry Kendall and Cornell astronomer Carl Sagan, the UCS worked to convince the American public, congressional leaders, and the White House that Reagan’s “Star Wars” plan was a dangerous dream. They argued that “few American scientists believe Star Wars can do what the President hopes,” and that SDI would only escalate the arms race. Sympathetic philanthropists—including members


While the UCS struggled to discredit Star Wars, another equally passionate group supported Reagan’s plan. “High Frontier” became the most visible pro-SDI group in the United States. Led by former “Team B” member and retired general Daniel O. Graham, High Frontier’s support of SDI was nothing short of rabid. Graham’s organization published pro-SDI books, created television ads, produced documentary films, and engaged in other innovative marketing methods to build SDI support. Graham recognized the importance of competing with the UCS and other forms of anti-SDI propaganda in American mass media: “Both sides realize that [SDI is] a political issue and that grassroots support is important.” From 1983 until 1986, High Frontier battled the UCS over that grassroots support. Their competing views of SDI—as a nuclear shield or a panacea—set the tone for future SDI debates. Reagan’s plan of missile defense became ripe for appropriation. U.S. op-ed pieces, editorial cartoons, and even big screen comedies like \textit{Real Genius} and \textit{Spies Like Us} lampooned Reagan’s program. By the mid-1980s, “Star Wars” had become a contested and at times comedic notion. The President may have maintained his hopes for a thorough missile defense system, but few in the administration, or the scientific community, believed that SDI would lead to a real defense.\footnote{First Graham quote taken from Richard Stengel, “The Great Star Wars P.R. War: Kindergarten Imagery Obscures a Vital and Complex Debate,” \textit{Time} (Dec. 9, 1985): 31-32; second quote from Linenthal, \textit{Symbolic Defenses}, 89; dozens of editorial cartoons are included throughout Linenthal’s valuable book.}
Both the UCS and High Frontier courted the White House for recognition and support. The UCS represented leaders in the scientific community, and many experts deemed their assessments as credible. As the UCS criticized SDI publicly, it privately pleaded with the White House to halt SDI research and renew arms reduction negotiations with the Soviets. High Frontier also courted White House support. Comprised of zealous anticommunists and neoconservatives, High Frontier may have lacked scientific credentials, but the organization did not lack in enthusiasm. Graham’s group more vociferously supported President Reagan’s plan than most administration officials. The UCS and High Frontier represented two extremes in a debate over an imaginary military system that had only limited support within the White House. As historian Edward Linenthal put it, “there has never been a nonexistent weapons system that has generated more passionate veneration and contempt” than SDI.\footnote{Edward Linenthal, \textit{Symbolic Defense}, xiii; see also William J. O’Connell, “The Strategic Defense Initiative: A Study in Addressing Critical Public Opinion Issues (1983 – 1993),” (Ph.D. Dissertation, Ohio University, 2003); H. Bruce Franklin, \textit{War Stars: The Superweapon and the American Imagination} (New York: Oxford University Press, 1988); Jeff Smith, \textit{Unthinking the Unthinkable: Nuclear Weapons and Western Culture} (Bloomington: Indiana University Press, 1989); FitzGerald, \textit{Way Out There in the Blue}, 147-209.}

To examine how non-government organizations shaped public and government perceptions of SDI, this chapter is organized into five sections. It begins with the roots of Reagan’s SDI plan and a recap of the events that shaped his belief in a space-based nuclear shield. Next, the chapter examines the early pro-SDI propaganda of High Frontier; the chapter’s third section recaps the opposing, anti-SDI media campaign of the UCS. This propaganda battle is significant. It shows that through the use of popular media, private interest groups shaped the public’s perception of a government military program. In a sense, both groups were antinuclear cultural activists, although they had
opposing ideas on how to reduce the nuclear threat. Fourth, the chapter shows how UCS and High Frontier propaganda delineated the boundaries of SDI’s promise. In the process, these groups convinced Washington insiders that future propaganda needed to distance itself from these fringe groups; by 1986, such extreme visions of Star Wars led the SDIO to promote only modest promises of SDI. Faced with two fringe hopes of SDI—one that touted perfect protection, and the other that criticized Star Wars as unrealizable—the SDIO sought a new, middle ground. They abandoned Reagan’s original hopes for missile defense and proposed only modest technological advances to ensure deterrence.

The SDI Announcement

Reagan introduced SDI in 1983 during a scheduled televised national defense address to the nation. On March 23 of that year, Reagan attempted to explain increased defense department expenditures to Americans increasingly concerned about budgets and deficits. After providing his rationales for spending increases—namely the perceived rise of Soviet strength and communist expansionism in Latin America—Reagan changed his tone. He mused on the state of the “human spirit” in a nuclear world and the need to rise “above dealing with other nations and human beings by threatening their existence.” Reagan believed that mutual assured destruction (MAD) was “a sad commentary on the human condition.” Instead, Americans should be capable of “demonstrating peaceful intentions by applying all our abilities and ingenuity to achieving a truly lasting stability.” Then, in only a few brief words, Reagan proposed an alternative to the longstanding nuclear doctrine of deterrence and offered a new vision of nuclear defense:
Let me share with you a vision of the future which offers hope. It is that we embark on a program to counter the awesome Soviet missile threat with measures that are defensive. Let us turn to the very strengths in technology that spawned our great industrial base and that have given us the quality of life we enjoy today. What if free people could live secure in the knowledge that their security did not rest upon the threat of instant U.S. retaliation to deter a Soviet attack, that we could intercept and destroy strategic ballistic missiles before they reached our own soil or that of our allies?

Reagan recognized that such a plan was a “formidable, technical task, one that may not be accomplished before the end of this century.” Yet Reagan maintained that “current technology has attained a level of sophistication where it's reasonable for us to begin this effort.” Although such a program would “take years [and] probably decades of effort on many fronts” was it not “worth every investment necessary to free the world from the threat of nuclear war?” Reagan believed that it was worth the investment, and that the American people would agree.157

Next, Reagan called upon “the scientific community in our country, those who gave us nuclear weapons, to turn their great talents now to the cause of mankind and world peace, to give us the means of rendering these nuclear weapons impotent and obsolete.” Reagan’s rhetoric reflected his unshakable faith in American ingenuity. To Reagan, if Americans could undertake a research and development program to create an atomic bomb during World War II, then they could also undertake a program to save humanity from such destructive weapons during the Second Cold War. This idea of technological salvation from nuclear war greatly appealed to Reagan. Although the

technology for any workable space-based antinuclear system was still nonexistent, Reagan did not care. He believed that American scientists could create such a system.  

Reagan’s SDI speech surprised many members of his administration. Few advisors to the president had advance knowledge of the speech. The two top administration officials—Secretary of State George Shultz and Defense Secretary Caspar Weinberger—only learned of Reagan’s SDI speech hours before the televised announcement. Numerous officials frantically tried to censor the speech. Weinberger, then away in Lisbon at a NATO conference, called Reagan and pleaded that all BMD remarks be dropped from the speech. Two of Weinberger’s aides, Richard Perle and Ron Lehrman, agreed. The New York Times and Washington Post featured headlines such as “Aides Urged Reagan to Postpone Antimissile Ideas for More Study,” thereby turning private, internal administration dissent into public knowledge.  

Weinberger and his assistants saw SDI as unrealistic. Whatever form it took, SDI would never be as effective of a deterrent as a strong military buildup. In the wake of Reagan’s announcement, administration officials had to wonder: where did the President get these ideas about such a futuristic vision of missile defense?  

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158 Ibid.
There are three notable influences on Reagan’s belief in SDI. The first came in 1940 when Reagan starred in the film *Murder in the Air*. He played the role of Brass Bancroft, a special agent tasked with securing the “inertia projector,” a top-secret weapon that could fire concentrated energy beams and intercept incoming missiles. This futuristic weapon provided “the greatest force for world peace ever discovered.” Reagan had a penchant for muddling stories and movie quotations with reality, and historians often credit *Murder in the Air* for having some influence on Reagan’s SDI proposal.\(^{161}\) The second influence on SDI was Reagan’s desire to dismantle the 1972 Anti-Ballistic Missile (ABM) Treaty. This détente-era treaty limited superpower production and deployment of ABM systems, and Reagan—ever the opponent of détente—sought to reassert American strategic superiority over the Soviets. Throughout the 1970s, Reagan promised to renew an American ABM system, and as president he considered abrogating the ABM treaty.\(^{162}\) The third influence on SDI came in 1979 during a campaign visit to the North American Aerospace Defense Command (NORAD). According to aide Martin Anderson, Reagan became dismayed to learn that the United States had no defense against a Soviet first strike and that retaliation was the only option. As President, he began to ponder ways that America could defend itself against nuclear weapons.\(^{163}\)

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SDI may have been Reagan’s dream, but missile defense programs were hardly new. Numerous Cold War administrations had pursued two methods of nuclear defense: Anti-satellite weapons (ASAT) and ballistic missile defense (BMD). As early as the Eisenhower administration, the defense department engaged in secret programs of missile defense, such as the Ballistic Missile Boost Intercepts, or BAMBI program. By 1960, studies on laser technologies were underway; by the Johnson administration, the military was engaged in a massive “Sentinel” program of BMD research. Nixon renamed this BMD program “Safeguard” and narrowed the program’s focus to protect U.S. ICBM missile silos. During détente, however, Nixon bargained Safeguard away for the 1972 ABM treaty. In short, BMD programs had been a part of Cold War research and development programs for decades. Before the Reagan presidency, however, they remained either secret research and development programs or bargaining chips for superpower treaties.164

A resurgence of BMD programs occurred at the end of the 1970s. Alarmed at the Soviet invasion of Afghanistan, more hawkish lawmakers called for renewed BMD programs. In 1979 Senator Malcom Wallop (R-WY) submitted an influential report to the conservative defense journal Strategic Review. In the report, Wallop suggested that modern technologies held the promise to make ballistic missile attack “obsolete.” Wallop’s desires to rekindle ABM programs likely came from his state’s reliance on pork-barrel military spending programs, but also from his young staffer Angelo Codevilla, a pro-missile defense hawk who endorsed new space-based defensive systems. Wallop and Codevilla persuaded other senators to join in their BMD crusade, thereby

164 Wirls, Buildup, 138-140.
shifting 1970s ground-based ABM system debates back to technologically advanced, space-based BMD proposals in the 1980s.¹⁶⁵

Such space-bound programs needed scientific support, and no figure was more influential in confirming Reagan’s belief in BMD science than Edward Teller. A longtime proponent of nuclear weapons technology and the so-called “father of the hydrogen bomb,” Teller began fueling Reagan’s desire for a space-based atomic shield at their first meeting in 1967. Then governor of California, Reagan toured Teller’s Lawrence Livermore National Laboratory. Teller had been researching high powered x-ray laser beams. He explained that such lasers might be positioned on satellites and powered with solar or nuclear energy for the purpose of missile defense. The two Californians remained in contact throughout the 1970s, and by the 1980s Teller became the most notable scientific proponent of SDI technologies. He published editorials endorsing SDI, publicly expressed optimism about space-based BMD programs, and preached the possibility of technological defense to Congress.¹⁶⁶

Alongside Teller and Wallop, the third figure to influence Reagan’s thinking on SDI was General Daniel O. Graham. A West Point graduate who had served as deputy director of the Central Intelligence Agency (CIA), Graham acted as Reagan’s military advisor during his 1976 and 1980 campaigns. Easily one of the more “hawkish” members of Reagan’s early coterie, Graham first made his hopes of a renewed space-race public in his 1979 book Shall America Be Defended? The book upheld Team B’s assessment that

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¹⁶⁶ FitzGerald, Way Out There in the Blue, 135; Teller’s decades-long involvement on Capitol Hill is covered in numerous chapters of Paul Rubinson’s “Containing Science” (Ph.D. Dissertation, University of Texas at Austin, 2009).
the Soviet Union had achieved nuclear superiority and that the United States needed to reassert its military dominance. Graham expressed his hopes for BMD with Reagan in February 1980. Although not a scientist, Graham reasoned that the great military transformations in history—such as evolutions in sea-power and air-power—suggested that a space race was inevitable. Graham continued to push for BMD in *Strategic Review*. In 1981, he argued that MAD was an outdated strategy, one that needed to be replaced by the “new strategic framework” of BMD.\(^{167}\)

After Reagan assumed the presidency, Graham made missile defense his top priority. He sought support from administration officials and members of the defense community, especially from Reagan’s first Secretary of State, Alexander Haig. A hardliner who believed that the best nuclear defense was a strong offense, Haig remained skeptical of Graham’s proposals. Undeterred, Graham finally found a sympathetic supporter in Karl R. Bendetsen, a conservative businessman. The two men founded “High Frontier,” a pro-military, non-government organization with the goal of ensuring U.S. dominance in the Second Cold War military space race. The group received financial support from numerous sources, including the conservative Heritage Foundation and beer magnate Joseph Coors. By 1982, High Frontier had raised over a quarter of a million dollars. High Frontier used the funds to engage in grassroots campaigns. They delivered pro-BMD presentations in forty states, and the media exposure of this futuristic plan gave High Frontier notoriety. Soon Graham was visiting the White House and meeting with his old boss. Reagan liked what he heard. The reality that such futuristic

technologies did not exist made little difference to Graham or Reagan; both believed in the promise and possibility of BMD.\textsuperscript{168}

Reagan liked Graham’s optimism, but numerous cabinet members doubted that any such program could be achieved during their administration, let alone in their lifetimes. In November of 1982 Defense Secretary Weinberger wrote Graham and expressed that although the president endorsed High Frontier’s proposals, the White House was “unwilling to commit this nation to a course which calls for…a capability that does not currently exist.” National Security Advisor Robert McFarlane later admitted that he never believed that SDI was valuable except as a bargaining chip at the nuclear negotiating table. George Keyworth, Reagan’s science advisor and a Teller protégé, was also skeptical of Graham’s proposals. Keyworth doubted that Graham’s calls for “solar-powered satellites” and “kinetic energy” weapons had any basis in available technologies. As early as 1981, after first hearing of Graham’s vision of a BMD program, Keyworth warned Congress that both the United States and the Soviets were “a great distance away from being able to deploy a large high-energy laser system…capable of achieving an ABM objective.” Keyworth’s critiques infuriated Senator Wallop; he demanded that Reagan appoint a new science adviser. Such criticisms had little effect on Reagan. Ever the optimist, he simply chose to limit SDI discussions to a selective group of SDI

supporters, including Ed Meese and Richard Allen. Despite such skepticisms, Reagan remained SDI’s most vocal proponent.\textsuperscript{169}

Even if Reagan endorsed Graham’s vision, White House support for High Frontier’s futuristic BMD program remained fragmented. Administration officials’ skepticisms were warranted—High Frontier’s scientific credentials were questionable at best. Graham had a reputation for holding positions and defending them “relentlessly…often in the face of the facts.” Graham also frequently made curious comments that alarmed his contemporaries; for example, he had once talked openly of defense department research to explore extra-sensory perception (ESP) and mental telepathy. High Frontier’s staff shared Graham’s curious credentials. Graham employed a science fiction writer as a consultant, and not surprisingly High Frontier’s proposals included manned mini-spacecrafts orbiting the earth, “kinetic energy” vehicles, and atomic lasers. Was Graham serious? Creating such technologies would be costly and timely, if possible at all. One Defense Department analyst remarked that Graham was “not averse to stretching the truth well beyond the breaking point” and that High Frontier’s efforts to persuade Reagan directly were attempts to make “an end run around the bureaucracy.” Concerned that Graham might directly influence the President to pursue unrealistic technological panaceas, SDI skeptics within the administration worked

\textsuperscript{169} Rhodes, \textit{Arsenals of Folly}, 261-263; FitzGerald, \textit{Way Out There in the Blue}, 198-199; on Weinberger’s appraisal of High Frontier see Boyer, “Selling Star Wars”, 5-7; Keyworth’s remarks cited in Wirfs, \textit{Buildup}, 144.
to insulate Reagan from High Frontier. In response, Graham shifted his focus away from the White House and instead sought grassroots public support.

**High Frontier’s Media Campaign**

For propaganda purposes, Graham wanted to brand Reagan’s proposal with the name of his organization; instead of “High Frontier,” however, many critics christened the plan “Star Wars” after the 1977 film it seemed to mimic. The “Star Wars” moniker stuck, but Graham disliked the title. So did filmmaker George Lucas. The creator of the landmark sci-fi movie sued to have his film’s title removed from SDI propaganda. A federal court judge ruled the “Star Wars” title public domain, however, and groups such as High Frontier continued to use the label in their propaganda. Graham, recognizing the marketability of the “Star Wars” label, continued to incorporate the term in his pro-SDI propaganda. How an organization or expert referred to Reagan’s plan revealed their feelings on space-based BMD proposals. The Pro-BMD organization High Frontier referred to Reagan’s plan eponymously; the White House used the SDI designation; and skeptics, such as the UCS, appropriated the “Star Wars” moniker. Put simply, the terms “High Frontier,” “Star Wars,” and “SDI” remain interchangeable; differences in designation reveal different political opinions, not different plans.  

In 1983, not long after Reagan’s SDI announcement, Graham released two books explaining the promise of BMD. The first book, *A Defense that Defends: Blocking Nuclear Attack*, came from the conservative-leaning publishers Devin-Adair. In it,


Graham proposed that nuclear strategy needed to evolve beyond MAD and towards a “true defense” in space. Graham’s second book, *High Frontier*, continued to promote space-based defenses and provided a detailed “overview of the High Frontier system” which included a “manned space station in low Earth orbit” and some “development work on reliable, high-capacity energy systems in space.” Astoundingly, Graham proposed that these requirements could readily be met “with technology already in hand and off-the-shelf hardware. None of these requirements demand technological breakthroughs or any commitment to mere scientific theories.” Graham dedicated both books to President Reagan for having “the courage to start this nation on a road to a true defense.” In a move that sparked the ire of the White House public relations corps, Graham included extended transcriptions of Reagan’s March 23, 1983 remarks for his book, thereby giving *High Frontier* the illusion of a White House endorsement. Graham’s sycophantic publication had received no such endorsement from Reagan or the White House.  

High Frontier’s pro-SDI publicity efforts intensified in the days leading up to the November 1983 ABC made-for-television docudrama *The Day After*. Anticipating record ratings for this antinuclear film, High Frontier created a “Two Day Media Blitz” to spread pro-SDI messages in major newspapers and on network television. Graham’s organization solicited White House staffers, asking them to make calls on behalf of High Frontier. In a letter to the White House, Graham suggested that the administration court conservative philanthropists and potential donors. With the right support, perhaps High

Frontier could raise the $500,000 needed to engage in its planned nationwide pro-SDI media campaign. The White House declined to act as High Frontier’s phone bank, and Special Assistant to the Chief of Staff Jim Cicconi “cautioned [administration officials] not to become involved” with Graham. Instead of engaging in fundraising activities for High Frontier, the White House opted to coordinate its own anti-

Day After publicity campaign—but it would not be the last time that the White House received Graham’s requests for support.¹⁷³

High Frontier fundraising efforts frequently included unauthorized use of the President’s words and likeness. Organization mailers reprinted a letter from Reagan to Graham in which the president expressed his appreciation of “the important work that you and your colleagues have done to prepare the way for a more secure America.” Reagan’s letter also stated that “all those who have made the High Frontier project a reality—have rendered our country an invaluable service for which all future generations will be grateful” and that High Frontier could help “build a national consensus [and] find the difficult answers for the profound strategic problems that face all of us in this nuclear age.” The reprinting of Reagan’s letter to Graham implied that the White House supported High Frontier, which it did not. Graham’s pro-SDI paperback We Must Defend America and Put an End to MADness also reprinted a portion of Reagan’s March 23, 1983 SDI speech. The book’s back cover featured a picture of Graham and Reagan

together in the White House, thereby intensifying the illusion that High Frontier enjoyed White House support. 174

This use of Reagan’s speeches, images, and letters concerned the White House. On February 22, 1984, Council to the President Fred Fielding sent Graham a letter warning that “the President adheres to a policy of generally not endorsing particular fundraising projects, no matter how laudable the objectives of the organizations benefiting from the fundraising.” Alarmingly, “the inclusion of the President’s letter in the solicitation for High Frontier…is likely to be construed by recipients as an endorsement of the fundraising,” a clear violation of White House policy. Such requests did little to deter Graham; he continued to appropriate Reagan’s SDI speech for future High Frontier propaganda. Still, such correspondence shows White House efforts to distance itself from Graham. Administration officials’ attempts to distance themselves from Graham suggests that they did not want to be associated with any group—even one supportive of Reagan—that made unlikely claims about futuristic missile defense. 175

In 1984, High Frontier shifted its efforts from print propaganda to television with the documentary *A Defense that Defends*. The program featured Lorne Greene, a Canadian actor who became famous playing Ben Cartwright on the long-running television western *Bonanza* and as “Commander Adama” in the 1970s outer space sci-fi drama *Battlestar Galactica*. This short-lived series attained a cult following, in part

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174 While administration officials could not be certain that Graham knew that Reagan’s remarks and likeness would adorn the covers of High Frontier paperbacks, the “odds [were] that he did.” Ibid.; Letter, Fred. F. Fielding to General Daniel Graham, February 22, 1984, ID#, PR014-09, WHORM: Subject File, Ronald Reagan Library.

175 Ibid.; see also *We Must Defend America*, ID#202239, PR104-09, WHORM: Subject File, Ronald Reagan Library.
because of its timely political overtones. *Battlestar Gallactica* told a story in which humans are engaged in a long war with an amoral race of machines, the “Cylons,” who call for a peace treaty only to use the ceremony as an opportunity to ambush and attack humanity. Some viewed *Battlestar Galactica’s* battle for the survival of humanity against an amoral enemy as a parable for America’s Cold War with the Soviet Union. Greene, with his acting experience as a western cowboy and space cadet, was an appropriate spokesperson to endorse Reagan’s pioneering and futuristic dream of SDI.

*A Defense that Defends* opens with a cardigan-clad Greene walking through a garden and sharing his thoughts about SDI with viewers:

I’d like to talk to you about a very important idea: a non-nuclear defense against nuclear missiles. If you’ve heard it called “Star Wars” that’s unfortunate, because it’s a misleading name for the concept. It conjures up notions of futuristic science fiction space machines blasting away at each other in outer space. I’m not a scientist—although I wish I were sometimes—but I do know the difference between fantasy and reality…after all I did command a fantasy spaceship as some of you may recall.

Now the proper name for the idea I mentioned is “High Frontier,” not Star Wars. It’s a proposal for a non-threatening, non-nuclear defense system to be set up in the high frontier of space to defend against the most awesome of destructive weapons: the nuclear ballistic missile. The concept was put forward in a report prepared by a group of non-governmental scientists and engineers as a result of an effort called High Frontier; the report was the catalyst behind the President’s launching of his Strategic Defense Initiative in March of 1983. You know, I find it puzzling, very puzzling, that this search for a non-nuclear defense against the destructive power of nuclear weapons should arouse such bitter opposition.

Greene then asked: “What would happen if only a few nuclear missiles were launched at us, by accident, by a breakdown in communications, or even on purpose?” The reality was grim. The President could do little in response, at least not “until High Frontier is set
Without a High Frontier system, America remained “vulnerable” to a nuclear first strike, and this vulnerability was frightening because the arms race was “ever-escalating” and “showed no signs of slowing.” The Soviets were already “deploying their deadly accurate SS-20” nuclear missiles in Europe, while the United States “only seeks peace.” High Frontier, therefore, was a smart and safe defensive program that could protect Americans from Soviet aggression.

The documentary included graphic depictions of a “three tiered” system involving a combination of ground-based ABM guns, space-based lasers, and a high tech computer infrastructure. These graphics were necessary to represent a yet unrealized BMD program. The advantage of such animations, of course, was that High Frontier system could work seamlessly for television viewers.177

Image 4: High Frontier’s A Defense that Defends screen capture number one.

176 Daniel O. Graham, A Defense that Defends (1984) Videorecording, 27 minutes; copy of this documentary provided to the author by Edward Linenthal.

177 Ibid. High Frontier’s warning about the SS-20s being “deadly accurate” is curious; nuclear weapons are, of course, one weapon in which accuracy is not that important.
According to this High Frontier documentary, to achieve space-based missile defense Cold War strategy needed to undergo a paradigm shift away from deterrence and towards actual defense. Because High Frontier “so effectively reduces the risks of a Soviet first strike, [America] will have little need to continue amassing ever-larger arsenals of nuclear weapons.” The United States could break free of this escalating arms race if it only “put the same effort into High Frontier as we did putting a man on the moon.” The good news: America could make High Frontier “operational by the end of the decade.” “This is no fantasy,” assured Greene, but for such a program to be effective Americans needed to act immediately; the “Soviets were already at work” on their own SDI-like program and had “already sent seven space stations into orbit.” At a secret camp known as “Star Town,” communist cosmonauts trained to man these space stations for up to two hundred consecutive days. The Soviets already “launch five times as many rockets, and place ten times as much equipment into space” as the United States, and “their commitment is clear, constant, and determined.” America’s choice should be
equally clear: did the United States prefer an amoral and expensive MAD doctrine of deterrence, or High Frontier’s promise of “assured survival?”

While Graham’s group initiated the first SDI propaganda campaign, the pessimistic predictions of the UCS were not far behind. The UCS worked to create their own body of anti-Star Wars propaganda, and their publicity methods were strikingly similar to High Frontier: both groups began their publicity campaigns with literature and transitioned into media presentations and documentaries, and both groups sought celebrity endorsements on television. Although their methods were similar, their messages were quite different. While High Frontier promised much of SDI technology, the UCS warned that Reagan’s space-based defensive shield would only destabilize the Cold War nuclear standoff.

**The Union of Concerned Scientists’ Anti-SDI Campaign**

While numerous antinuclear advocacy groups opposed Reagan’s plan—such as the Physicians for Social Responsibility and the Committee for a Sane Nuclear Policy—no organization opposed SDI more persistently than the Union of Concerned Scientists (UCS). Founded in 1969 in Cambridge, Massachusetts, the UCS engaged in “research, public advocacy, and education activities” to inform Americans about issues of “nuclear arms control, energy policy, and nuclear-power safety.” The group entered missile-defense debates in the 1970s and gained media attention due to its notable membership, such as the antinuclear activist and Nobel Prize winning physicist Hans Bethe. After the 1972 ABM treaty, the UCS focused its energies on containing nuclear power. In 1981, when Reagan assumed the presidency, the UCS shifted its energies back to the nuclear

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arms race. It was Reagan’s 1983 SDI announcement, however, which refocused the organization’s efforts on a single goal: to keep nuclear weapon technologies out of outer space.\textsuperscript{179}

Carl Sagan played an instrumental role in energizing the UCS anti-Star Wars campaign. Sagan learned of Reagan’s announcement from a Syracuse hospital bed. Complications from a botched surgical procedure left Sagan greatly weakened. As he lay recovering his wife Ann Druyan explained Reagan’s announcement. SDI appalled Sagan. He viewed it not only as a quixotic program, but one that would spark a Soviet nuclear buildup. Sagan’s response to SDI was immediate. He dictated to Druyan an anti-SDI petition replete with the names of prominent signatories including former astronaut and Senator John Glenn and Japanese Prime Minister Yasuhiro Nakasone. These notables would join other UCS members in delivering the first scientific criticisms of Star Wars. Sagan’s fame paid dividends; in four nights of making phone calls, Druyan had attained hundreds of signatures for the UCS petition. After he left the hospital, Sagan announced to colleagues that he was abandoning his role in NASA’s \textit{Galileo} space project to devote his “energies on saving the world from nuclear holocaust.” That crusade began by discrediting Reagan’s SDI.\textsuperscript{180}

In a May 18 op-ed piece in the \textit{New York Times} Sagan and physicist Richard L. Garwin attacked Star Wars as a dangerous proposition. They argued that SDI would not


make the world safe from nuclear weapons, but instead intensify the arms race. Sagan and Garwin pleaded that “the United States, the Soviet Union and other spacefaring [sic] nations…negotiate, for their benefit and for the benefit of the human species, a treaty to ban weapons of any kind from space, and to prohibit damage to or destruction of satellites of any nation.” The op-ed piece presented UCS panel-testimony discrediting Reagan’s plan. It included signatures from Manhattan project member Victor Weisskopf, former Commander in Chief of U.S. forces in the Pacific Noel Gayler, C.I.A. Scholar-in-Residence of the National War College Richard Ned Lebow, UCS Board of Directors member Kurt Gottfried, and UCS Chairman Kendall. The editorial’s numerous signatures attempted to show a scientific consensus of SDI skepticism. The message was clear: experts did not believe that Reagan’s dream was achievable.  

UCS irked the White House when in June of 1983 the organization published a teaching unit entitled Choices: A Unit on Conflict and Nuclear War. This UCS publication provided “ten lessons on the evolution of the nuclear arms race, the nature and consequences of using nuclear weapons, and new ways that conflicts among nations might be resolved.” Crafted for “junior high school level” students, Choices warned about the steady growth of the global nuclear arsenal. It recommended that students read antinuclear literature—including Jonathan Schell’s Fate of the Earth—and emphasized cooperation between the superpowers. Although Choices did not mention High Frontier or Star Wars—the UCS composed the book just before Reagan’s March SDI announcement—itits warnings about nuclear proliferation were clearly criticisms of the

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In response, on June 6, 1983, UCS Chairman Henry Kendall wrote a letter to the White House accusing the Reagan administration of suppressing “free discussion of the issues of war and peace in the nation’s schools.” He criticized the administration’s strategy as attempts at censorship and scoffed at accusations that the UCS was aiming to “frighten schoolchildren” when in reality “what has scared our nation’s children is talk of waging and winning nuclear war.” Kendall hoped that the administration was “not trying to intimidate American educators into silence on this issue.” This exchange over \textit{Choices} increased animosity between the UCS and the White House. Future anti-Star Wars propaganda did little to improve already strained relations.\footnote{Letter, Henry W. Kendall to Ronald Reagan, July 6, 1983, ID#153688, ED003, WHORM: Subject File, Ronald Reagan Library.}

By May 1983, the UCS published “Anti-Satellite Weapons: Arms Control or Arms Race?” which quickly made its way throughout American universities. The report emphasized the need to maintain a stable deterrent and not abrogate the 1972 ABM treaty. Kendall forwarded a copy of this report to President Reagan, but likely the report never made it to the Oval Office; instead, the State Department drafted a short response explaining that while the White House took UCS concerns about nuclear weapons seriously, an end to SDI would “allow the Soviets to retain their operational anti-satellite system while prohibiting us from developing and deploying one of our own.” The
administration admonished the UCS for suggesting that the Soviets would ultimately “lose confidence in their system” of missile defense. This conclusion was “rather speculative” and called into question the ability of your proposal to “foster and preserve stability.” This exchange was indicative of future UCS attempts to sway White House opinions about SDI, and most White House responses were similar in message: Even though they respected the UCS’s scientific expertise, administration officials did not find UCS opinions on national defense persuasive.\footnote{184}

In 1984, the UCS sought grassroots support. It released a Vintage “special edition” paperback entitled *The Fallacy of Star Wars* which provided a detailed case against SDI from a broad consensus of scientific experts. Later that year, UCS Chairman Kendall summarized the contents of *Fallacy of Star Wars* in *Time* magazine. He argued that Reagan’s Star Wars program was “unattainable.” Scientists “know very well how to defeat these defensive systems,” mused Kendall; all it took was submarine-launched ballistic missiles (SLBMs), suitcase bombs, or ICBM decoys to confuse and overwhelm any SDI program. While scientists knew how to override SDI systems, what they did not know was “how to build them.” Kendall repeated these arguments in the prestigious journal *Science* and warned that “testing or deployment of any weapons in space…significantly increases the likelihood of warfare on Earth.”\footnote{185}


\footnote{185} Ibid.
While they may not have liked the UCS’s criticisms, the White House recognized that such criticisms were valid. Beginning in 1983, the UCS had been privately warning the White House about SDI’s strategic flaws. Kendall’s caustic letter to the White House over the Choices publication led the UCS to remove Kendall as UCS spokesperson. Their new spokesperson, Jonathan Dean, a former arms control advisor and U.S. ambassador, sought to move “the organization towards a more constructive approach” with the White House. Dean immediately sought a meeting with National Security Advisor Robert McFarlane to suggest a new approach to improve superpower relations: First, “an agreement to limit anti-satellite weapons; a linking of talks on offensive weapons with negotiation on defensive weapons; steps to reduce the risk of conventional and nuclear war in Europe;” and second “a long-term and practical plan to sharply reduce the now large inventories of nuclear weapons.”

Dean’s letter did prompt a White House response, although not right away. By December 17, 1984, Dean’s letter to McFarlane had gone weeks without a reply, forcing Dean to send a second request. McFarlane finally approved of the meeting but only “grudgingly.” The National Security Advisor likely agreed to this meeting because by 1984 mounting antinuclear pressures from antinuclear cultural activists and grassroots protests forced Reagan to promise reductions in global nuclear arsenals. The Dean letter showed that the UCS was ready to force this issue with new administration representatives. Still, White House disdain for the UCS and its anti-SDI media campaign was still high. When a Princeton professor informed President Reagan that his name was

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186 Memo, Sven Kraemer to Robert C. McFarlane, February 8, 1985, ID# 298088, FG006-12, WHORM: Subject File, Ronald Reagan Library.
erroneously included in a UCS petition against SDI, Reagan responded that had learned “of how the Union of Concerned Scientists distorted your position with regard to our national defense” and that the President himself had “been concerned for sometime by the actions and statements of that organization [i.e. the UCS] which seems to depart now and then from the truth in pleading its case.”187

Still, Dean had forced a meeting with McFarlane. While it may have been painful for the National Security Advisor to entertain these scientists’ disarmament views, the meeting had potential benefits. For McFarlane, if private meetings shifted UCS energies away from public efforts to discredit SDI in American mass media, it was worth the trouble. White House memoranda gauged that “the Scientists remain highly skeptical about SDI’s technical feasibility and its stabilization potential,” but McFarlane was pleased that the UCS was now working privately with the White House: “[The UCS] think they are being constructive by no longer attacking SDI frontally…however, they clearly remain out to block, or crimp, the program severely.” So McFarlane met with Dean in part to let the UCS feel constructive, but also in the hopes that such meetings would slow the UCS’s efforts to discredit SDI in American mass media.188

Despite these private meetings, the UCS continued to critique SDI publicly. To engage in antinuclear cultural activism, the UCS created multi-media “slideshow” presentations. Although low-tech by today’s standards, these presentations combined images and an accompanying audio soundtrack to create a primitive but effective


188 Memo, Sven Kraemer to Robert C. McFarlane, February 8, 1985, ID# 298088, FG006-12, WHORM: Subject File, Ronald Reagan Library.
propaganda piece. In 1984 the UCS created its first short anti-SDI film. Entitled “Weapons in Space,” the film benefited from Carl Sagan’s experience in television, as well as from the contribution of his longtime illustrator Jon Lomberg. “Weapons in Space” also featured an instantly recognizable narration from James Earl Jones, an appropriate spokesperson. Jones had appeared in the atomic satire *Dr. Strangelove* and his deep baritone voice became iconic from the *Star Wars* films through his speaking role as “Darth Vader.”

“Weapons in Space” opens with images from the *Star Wars* films and artistic representations of what a “Star Wars” program might entail. As the images pass by, Jones narrates:

> Space weapons, laser battles, and death stars exist only in the movies. I’m James Earl Jones, and I would like to talk to you about this space war fantasy becoming a reality. The greatest fear people have today is that of nuclear war. Recently, space-based defenses against ballistic missiles have been proposed that allegedly would make nuclear weapons impotent and obsolete. The Union of Concerned Scientists, a national organization with extensive experience in weapons technology, has completed a study of the proposed systems. They have found that space defense is a dangerous fantasy. None of the systems have been built. All of them face enormous technical hurdles and staggering costs. Worst of all, none of them will protect us from the huge missile buildup they will provoke.¹⁸⁹

Jones explained that while SDI supporters believed that Reagan’s program would “defend our country against intercontinental ballistic missiles (ICBMs),” the reality was much different. The Soviets could overwhelm any Star Wars system through numerous methods, including ICBM decoys, increased numbers of medium range missiles, or with nuclear bombs hidden on commercial ships. These countermeasures would be simple,

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cheap, and effective. The UCS created artistic representations of Soviet countermeasures which could easily penetrate any SDI program for “Weapons in Space.”

Image 6: “Weapons in Space” screen capture number one.

Image 7: “Weapons in Space” screen capture number two.
Jones explained that because the “technical assessment of these weapons is very bleak, their operation under battle conditions will always be in doubt;” therefore, the White House should abandon SDI and return to negotiating arms reduction treaties. “The treaty limiting anti-ballistic missile defenses is the most important existing arms control agreement,” narrated Jones, “[but] it will be swept aside if we proceed with space defenses.” The presentation ends by promoting peaceful space exploration by both superpowers: “America has pioneered the use of space technology. Everyday satellites affect and improve our lives. NASA’s explorations have brought out the best human qualities of courage, ingenuity, and curiosity; but it is negotiated agreements, the force of reason—not space technology—that will save us from nuclear annihilation.” Instead of supporting SDI, Americans needed to take action and “demand that all weapons be banned from space.” In other words, Americans must engage in political activism “if we are to preserve our world and our future.”

This five minute multimedia presentation became a centerpiece of UCS talks not only in university speaking tours, but also in Sagan’s private meetings with political leaders. Sagan later copied the “Weapons in Space” format in 1984 with his “Environmental Consequences of Nuclear War” presentation, in which he warned about the dangers of a “nuclear winter.” Sagan also used a similar format for his 1984 presentation with science fiction writer Arthur C. Clarke. The two science icons proposed a joint U.S. and Soviet mission in space. Clarke played a videotape entitled “A Martian Odyssey” while Sagan proposed that the superpowers embark on this joint mission to Mars by 1992. Sagan argued that the exploration would mark the 500th anniversary of

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190 Ibid.
Columbus’s discovery of America, and could temper Cold War tensions. For Sagan, this peaceful proposal was more attainable than SDI. Sagan’s efforts show that by 1984 the UCS members were relying on multimedia presentations in their efforts to persuade colleagues and American policymakers. Next, the UCS sought to bring these media presentations to millions of concerned citizens via American television.  

**Star Wars at the Movies and on TV**

The High Frontier and UCS publicity campaigns crafted vivid, competing descriptions of SDI, and it did not take long for U.S. popular culture to appropriate these two visions of Star Wars. In 1985 two popular films—*Spies Like Us* and *Real Genius*—used an SDI-like program as a central theme. In *Spies Like Us* two dim-witted NSA agents—played by Dan Aykroyd and Chevy Chase—embark on a mission in which they unknowingly fire a Soviet ICBM at the United States. Aykroyd and Chase are not warmongers, but dupes of high-ranking military personnel who hope to use the pair as decoys while another team unknowingly launches a first strike against the United States. The film appropriates UCS arguments that only an actual nuclear missile attack would allow the U.S. government to test an SDI-like program. *Spies Like Us* also reinforces UCS critiques that SDI would fail to protect Americans. In the film, the SDI program fails; only Aykroyd’s and Chase’s last ditch efforts prevent the warhead from reaching its American target.

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Real Genius also conveyed UCS fears of putting weapons into space. Real Genius takes place at an MIT-like facility in which gifted students work on a high-powered laser beam. They succeed, only to discover that their professor has sold the laser to the U.S. government as a space weapon. The film upholds UCS criticisms that there is no such thing as a “defensive weapon system,” and that SDI-technologies could easily be used as offensive “weapons in space.” Despite their similarities to UCS criticisms, Real Genius and Spies Like Us remain lighthearted comedies. Yet both films show that by 1984, the UCS and High Frontier had done much to popularize ideas about SDI. In each film, SDI is depicted as a fallible system, much as the UCS predicted; yet each film utilizes the space-based laser motif pushed by High Frontier. By 1985 filmmakers had little difficulty imagining what SDI might look like. They easily incorporated the space-based dreams of High Frontier as well as the criticisms of the UCS into popular films. In arguing both for and against SDI, these groups had popularized the limits of Star Wars in the American imagination. ¹⁹³

In addition to these 1985 films, both UCS and High Frontier created television ads which publicized competing visions of SDI. These ads marked the first Star Wars television spots since Reagan’s 1984 presidential reelection campaign. The Reagan campaign’s “Bear in the Woods” commercial did not, however, get into specifics on SDI. Instead, the ad emphasized the importance of Cold War “preparedness” and the need to safeguard against the Soviet threat. The ad featured a large, lumbering grizzly bear, which represents the Soviet Union. As the bear plods through the woods, Hal Riney—

¹⁹³ Lettow, 89-90; this sentiment is confirmed in War and Peace in the Nuclear Age: Part 12, Reagan’s Shield, 1988, 60 minutes (ABC). Brian Grazer, Producer, Martha Coolidge, Director Real Genius, 108 minutes (Delphi III Productions, 1985).
also the voice of Reagan’s popular “Morning in America” ad—narrates: “There is a bear in the woods. For some people, the bear is easy to see; others don’t see it at all. Some people say the bear is tame; others say it’s vicious and dangerous. Since no one can really be sure who’s right, isn’t it smart to be as strong as the bear…if there is a bear?” The commercial concludes with a picture of Reagan and the slogan: “President Reagan: Prepared for Peace.”

Aside from this reelection ad, the White House provided little in the way of televised SDI propaganda, thereby leaving non-government organizations to promote or criticize Star Wars on network television.

The first SDI ad came on October 1984. It became known as High Frontier’s “Crayola Ad,” as the commercial is drawn in crayon, replete with stick figures, a square house and a frowning-faced sun. The 30 second spot included a child’s voiceover: “I asked my daddy what this ‘Star Wars’ stuff is all about. He said that right now we can’t
protect from nuclear weapons, and that’s why the President wants to build a Peace Shield. It’d stop missiles in outer space...so they couldn’t hit our house. Then nobody could win a war, and if nobody could win a war, there’s no reason to start one. My daddy’s smart.” As animated crayon-drawn red missiles descend, they harmlessly pop and explode when they make contact with a bluish arc across the top of the drawing. As this “peace shield” protects the family, the sun’s frowning face transforms into a smile, and an American flag flies in front of the house.\footnote{Edward Linenthal provided copies of these commercials to the author. In his book \textit{Symbolic Defense}, Linenthal states that the “Crayola Ad” was sponsored by the “Coalition for the Strategic Defense Initiative” (108-109), yet other reports cite the commercial originating from High Frontier, and Linenthal acknowledges High Frontier for providing this ad in his endnotes.}

The use of crayon art to explain a high tech program to protect Americans from Soviet thermonuclear missiles earned High Frontier widespread criticisms. Numerous newspaper editorial cartoons lampooned the commercial for being overly simplistic. 195

The Committee for a Strong and Peaceful America—another anti-SDI organization—lampooned the “Crayola Ad” in their own counter-ad. In the “Space Wars I” ad, a child watches High Frontier’s “Crayola” commercial while playing with letter blocks. The narrator explains that the boy, Matthew, “has the same problem the White House does. He’s trying to turn Star Wars into something called the Peace Shield. But it doesn’t fit. Matthew is learning what adults already know: when someone wants to mislead you, then they try to change the name. But when you look closer, it’s still the same old thing.” As the ad concludes, Matthew, after considerable effort, has finally reformulated his letter blocks; now, instead of “Peace Shield,” they read “Space Wars.” Much as the UCS had been arguing for months, the “Space Wars I” ad suggested that Reagan’s SDI would not offer a shield; instead, it would simply put more weapons into space.

The UCS provided its own childlike response to the Crayola Ad. On May 30, 1985, networks aired UCS’s twenty-second “Twinkle, Twinkle” ad, which showed a pajama-clad boy peering out his bedroom window. Gripping a teddy bear and gazing at the stars, the child sings “Twinkle, Twinkle, Little Star,” but one star begins to grow increasingly bright until it finally explodes. The screen is flooded with a white light, conveying an atomic attack. In some ways, the ad was reminiscent of Lyndon B. Johnson’s controversial 1964 “Daisy” ad, which also showed an atomic explosion that would have killed innocent children; although the two ads appeared twenty years apart, both became the focus of network news stories due to their inclusion of innocent children and atomic explosions.
The UCS commercial, like the organization’s “Weapons in Space” presentation, featured James Earl Jones, who narrates: “The heavens are for wonder, not for war. Stop Star Wars. Stop weapons in space.”

The “Twinkle Twinkle” ad was part of the UCS’s “new offensive” against SDI, one that aimed to “counter the administration’s claims about Star Wars” and compete against High Frontier’s pro-SDI commercial. The UCS provided not one, but two television ads discrediting Star Wars. If the UCS’s first ad mocked High Frontier’s use of children, their second ad touted its own scientific expertise. It featured UCS member and former Manhattan Project member Victor Weisskopf. In this twenty-second spot, Weisskopf expressed his hopes for arms control: “I helped design the atomic bomb,” shared Weisskopf, “I know what would happen in a nuclear war. I only wish President Reagan did.” Much like previous UCS propaganda, this ad aimed to convince the

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196 UCS commercials provided to the author by Edward Linenthal, May 20, 2011, hereafter referenced as “Star Wars Commericals DVD.”
American people that the UCS, not High Frontier nor President Reagan, remained the experts on space-based technologies.¹⁹⁷

Network news took notice of this UCS anti-SDI media offensive. On May 30, 1985, *NBC Nightly News* noted that these UCS commercials coincided with recent Soviet requests that the United States halt SDI research. CBS allotted the UCS some favorable coverage; the network informed viewers that fifty-four Nobel Prize winning scientists and over half of the American Academy of Science members had joined the antinuclear cause, and “never before have so many noted scientists opposed [a presidential] administration.” CBS also aired Kendall’s remarks that SDI would not provide any workable peace shield, but instead “reinvigorate an already nasty and very dangerous nuclear arms race.” These television ads allowed the UCS to increase coverage of its anti-SDI message.¹⁹⁸

On November 14, 1985, network news capitalized on the growing tensions between UCS and High Frontier. Spokespersons from each organization met to quibble over the merits and criticisms of SDI on the *CBS Evening News*. In the heated interview, Kendall attacked the “Crayola Ad” for being simplistic, calling it a “fraud on the American public.” Graham took umbrage at this accusation; he countered that at least in his ad, the “child gets protected [while] in the Union of Concerned Scientists [commercial], she [sic] gets blown up.” Graham had successfully summarized the approaches of each group. Both the UCS and High Frontier were spending millions on a

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yet non-existent BMD program, but the UCS constantly promoted pessimism while High Frontier remained unshakably optimistic in its hopes for SDI.  

In the summer of 1985, Graham shifted focus away from television commercials to create one of the most curious propaganda campaigns of the Second Cold War: High Frontier’s “Star Spangled Sweepstakes.” During the 1980s, mail-in sweepstakes were common. The most famous sweepstakes of the decade, the “Publisher’s Clearinghouse Sweepstakes,” featured spokesperson Ed McMahon and offered participants the possibility of winning millions. Daniel Graham’s sweepstakes was similar to Publisher’s Clearinghouse, except that it pushed a pro-SDI agenda. It asked Americans to “enter the All New Star Spangled Sweepstakes…for a Safe, Secure America.” There were “over 135 chances to win valuable prizes…including U.S. Gold Coins” and an “Early Entry Bonus Prize” of “Big Cash.” The three grand prizes included $5,000 in gold coins, a Mercury Lynx Hatchback, and an RCA Home Entertainment Center featuring a Colortrak 2000 Projection TV, Selectravision Color Video Camera, and a cassette recorder. Participants might also win a Polaroid Auto-focus Instant Camera, a General Electric Countertop Oven, a Smokeless Indoor Grill, a Re-Dial Telephone, or a Regal “Polly-Pop” Corn Popper…all in the name of SDI.  

Those who entered the sweepstakes could also let Congress know that they supported SDI. Participants would “be returning a questionnaire that will get your feelings about a major national issue counted in the U.S. Congress!” While voluntary, the

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199 Graham misspoke: In the “Twinkle, Twinkle” ad, the child is a boy, not a girl; see also Linenthal, *Symbolic Defense*, 112.

200 Daniel Graham’s letter included in the “Star Spangled Sweepstakes,” ID#: 337322, PR014-09, WHORM: Subject File, Ronald Reagan Library.
questionnaire would provide input on “the major national issue…President Reagan’s plan to put a network of special satellites in space that would make all of us safe from nuclear missile attack!” The sweepstakes was an opportunity for “concerned citizens [to] tell every U.S. senator and congressman what Americans like you really think about this revolutionary approach to ending the ‘balance of nuclear terror.’” Graham was “strongly in favor of it…after all, everyone enjoys a sweepstakes. It’s an ideal way to reach great numbers of Americans with the facts about this plan to free mankind from the menace of nuclear confrontation.”

The sweepstakes painted SDI as a viable technological solution to the Cold War nuclear nightmare with bipartisan support. “Seven out of ten Democrats said that they wanted [an SDI] system. So you see, it’s not a matter of politics [and if] High Frontier had its way, ALL nuclear missiles would soon become unusable antiques! Frankly, I think that’s a far better idea than even a nuclear freeze. After all, a nuclear freeze…would still leave the world threatened by arsenals of nuclear missiles.” In perhaps the most startling hyperbole of the High Frontier media campaign, Graham contended that “the proposed new space-based shield against nuclear weapons could actually save tax dollars [because] the technology needed for [SDI] either already exists or has been well proven…once it’s working it will replace [other] far costlier military hardware.”

In August of 1985, a concerned citizen forwarded a copy of the “Star Spangled” sweepstakes to the White House and in a hand-written letter asked the President if he had endorsed the mailing. The letter never made it to Reagan’s desk, but Counsel to the

\footnote{201}{“Star Spangled Sweepstakes,” ID#: 337322, PR014-09, WHORM: Subject File, Ronald Reagan Library.}

\footnote{202}{Letter, Daniel O. Graham, ID#337322, PR014-09, WHORM: Subject File Ronald Reagan Library.}
President Fred Fielding asked leadership at the Republican National Committee if they had any involvement with the High Frontier sweepstakes. The RNC responded that it was not involved in Graham’s fundraising efforts in any way, and ultimately Fielding responded to the confused citizen that “The President has not endorsed the sweepstakes nor is he in any way involved with its operation.” Much like other SDI propaganda up until 1986, Graham’s High Frontier sweepstakes was “entirely a private effort” but it appeared as though it had government support.\textsuperscript{203}

In response to the increasing number of SDI ads in print and televised media, in December 1985 \textit{Time} magazine ran a story entitled “The Great ‘Star Wars’ P.R. War.” It recapped SDI publicity by both the UCS and High Frontier and asked Washington D.C. public relations experts to weigh in on this media war. These experts agreed that High Frontier and UCS commercials had established the boundaries of pro and anti-SDI zealotry. The High Frontier ads showed that “if you oversimplify Star Wars, it sounds terrific,” but as UCS ads had shown, the more that ads “explain [SDI], the worse it sounds.”\textsuperscript{204} Therefore, any new SDI publicity campaigns needed to learn from these ads and seek a third, more moderate course. One new group, the Trilogy Foundation, was charting such a course: “The goal is to stay in the middle, not to be like High Frontier, which has been labeled as zealots, or the Union of Concerned Scientists, who have also been labeled as zealots.” By 1985, Americans assessing SDI from television ads and network news had two options: either support Star Wars as a futuristic plan for a nuclear

\textsuperscript{203} Memo, Hugh Hewitt to Fred F. Fielding, September 4, 1985, ID#: 202239CU, 218856CU, 337322CU, PR014-09, WHORM: Subject File, Ronald Reagan Library.

shield, or reject it as an unachievable program that would only escalate the arms race. Neither vision was wholly satisfying to skeptical Americans.\textsuperscript{205}

What allowed for these all or nothing visions of SDI was the fact that, put simply, the system did not exist. According to SDI historian Edward Linenthal, Americans “easily forget…that there is no ‘it’; there is only the ‘I’ in SDI.” Reagan’s initiative remained just that: an “initiative,” and nothing more. With Star Wars, Reagan had provided either “an appealing vision of a world made secure through missile defense or an appalling vision of a world nearer nuclear catastrophe because of missile defense.” These were the opposing sides that High Frontier and the UCS assumed, respectively. As High Frontier promised a high-tech, three-tier defensive system in space, the UCS presented an appalling vision of a destabilized nuclear world. Neither of these extreme visions was politically tenable for the White House. The lessons of UCS and High Frontier media campaigns proved to Washington insiders, and to the White House, that future propaganda needed to focus on short-term, tangible goals to show that SDI progress was possible.\textsuperscript{206}

**Redefining the Boundaries of SDI Propaganda**

To redefine the possibility of SDI, the White House created the Strategic Defense Initiative Organization (SDIO). The SDIO worked to shift Reagan’s dream of a peace

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\textsuperscript{205} Ibid.

shield into simply another version of the decade’s old antiballistic missile (ABM) programs. The reasons for this shift were in part political, but there were economic motivations as well. SDIO cared less about selling its vision of the Second Cold War to the American public and more about enticing private industries to reap the rewards of pork barrel spending, all under the guise of strategic defense. In short, what the White House needed was positive SDI propaganda; proof from a reputable government organization that SDI research and development programs were bringing America closer to a workable nuclear defense.

Created in 1984, the SDIO was an independent body under the DOD devoted solely to SDI research. Its director, the former astronaut Lieutenant General James A. Abrahamson, Jr., focused his efforts on articulating SDI’s potential to Congress and the press. Abrahamson even briefly considered hiring Daniel Graham as an upper-level SDIO staffer, but decided against it based on Graham’s eccentricities and overly-optimistic SDI predictions. High Frontier proposals for “smart rocks”—later dubbed “brilliant pebbles”—X-ray and chemical laser weapons made for good sound bites, but ultimately Abrahamson rejected Graham’s request that SDI follow High Frontier’s blueprint. In the spring of 1985, the New York Times and Washington Post ran detailed stories on this new organization. The SDIO’s goal was clear: it sought to “move public opinion” away from skepticism and towards the belief that “SDI will work” and that it was “only a matter of time and resources” before Reagan’s dream became a reality. To execute this new public relations plan, the SDIO planned to enlist “pro-SDI Scientists,” especially “older, sage types,” to lead “collateral press opportunities” to affirm SDIO predictions.

FitzGerald, Way Out There in the Blue, 242-249.
These pro-administration scientists would contest UCS skeptics and argue that “SDI is the scientific challenge [of] this generation, as Apollo was to scientists of the 60s.” Such patriotic, positive statements had “excellent regional press possibilities.” Overall, sympathetic scientists should stress that “SDI research has made remarkable progress.” The White House stressed that repetition of this optimistic message was key: “if we say this long enough, with conviction, then public impression will turn to the assurity [sic] that SDI is technically feasible.”

Convincing the public that SDI was attainable would “help with two constant struggles.” First, it would address the concerns of the Congressional Budget Office. During Reagan’s second term, Congress began calling for a “return on investment” for SDI. Initially, the Defense Department had allotted $1.4 billion to the SDIO, so Abrahamson’s promise of a “return on investment” was necessary even without the barrage of UCS criticisms. Congressional leaders were beginning to question the value of SDI funding, especially the notorious fiscally-conservative Senator William Proxmire (D-WI). On CBS’s Face the Nation, Proxmire exclaimed that the case against Star Wars was “overwhelming.” Proxmire was not alone in asking Reagan to reel in defense spending, but his appearance on Face the Nation publicized Congressional calls for a return on the SDI investment. In response, in 1986 the SDIO began its “new program” in the hopes of validating its spending for congressional skeptics. If the organization obtained “strong Congressional endorsement” it might achieve “new funding and [remove] restrictive


amendments to research and development and production cooperation.” Put simply, the SDIO sought to “foster Allied participation and support for SDI and gain strong Congressional endorsement.” Both goals were central in providing “a real justification for increased funding for [Fiscal Year] 1986.” Congressional endorsements would also “take pressure off the overall SDI budgetary squeeze” and hopefully “provide SDI research…with an outlet for a tangible product.” This stated goal of achieving a “tangible product” shows the influence that UCS and High Frontier propaganda had on the public and Congress. The UCS argued that SDI was unattainable, while High Frontier promoted technologies that sounded impossible; if the SDIO could stay between these extremes and tout incremental progress, it could validate its defense expenditures.²¹⁰

The SDIO’s second goal was to present SDI as a program with tangible goals and objectives. For years the UCS had made accusations that the U.S. was “negotiating away arms reductions for a pie in the ski [sic] idea.” In response, the SDIO bombarded the American public with positive technological advances. It mattered little how minor those advances might be; the organization’s focus was on maintaining Congressional support and funding, and that meant touting technological progress.²¹¹ For too long “Hill critics” had been criticizing “the program for its lack of organization and clear objectives.” Abrahamson’s plan dictated that the SDIO “should respond by specifying what military missions SDI must accomplish in addition and prior to deployment of ‘thoroughly effective’ defenses.” In short, under Abrahamson’s direction SDI assumed new goals. It


²¹¹ Ibid.
no longer sought fully functional missile defense, but a series of practical technologies that would lead to the “protection of our allies and troops…against tactical ballistic missiles.” SDI technology would now safeguard “our key satellites against attack.” Even if certain SDI technologies “might not yet be mature enough for deployment in an ultimate SDI architecture,” they might still “be designed for dual application” such as tactical defensive technologies. In other words, the SDIO advertised short run payoffs for a long term project: “Technologies being researched today can significantly contribute to theatre and conventional force improvements,” argued Abrahamson. This shift in SDI propaganda strategies is significant. No longer would SDI promise—as Reagan had—to make nuclear weapons impotent and obsolete; now, it would simply enhance deterrence or aid tactical forces.212

Abrahamson’s strategy provided the SDIO with numerous opportunities to publicize SDI on network news. Beginning in 1986, a number of network news programs were featuring pieces on SDI’s technological “breakthroughs.” One example was the “railgun” prototype, or a compact cannon that could shoot projectiles with enough force to pierce the metal of a (hypothetical) incoming missile. News coverage showed ecstatic scientists toasting champagne at the progress of their “rail gun” prototype. Although it seemed a far cry from High Frontier’s hopes for X-ray lasers, any successful test—no matter how rudimentary—helped to publicize SDI. Minor technological advances such as

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212 “Course for SDI,” ID# 448445, ND018, WHORM: Subject File, Ronald Reagan Library.
the railgun fit perfectly into Abrahamson’s strategy: to avoid High Frontier-type promises and promote incremental progress towards a workable missile defense.213

The UCS quickly ascertained Abrahamson’s strategy. In 1986, the UCS published *Empty Promises: The Growing Case Against Star Wars* and produced a companion television documentary entitled *False Frontier*. Both propaganda pieces presented highly critical takes on Star Wars and pointed out that early ideas about SDI had been based on High Frontier, in which SDI would be an all encompassing “peace shield.” Yet the UCS had shown that even during a “best case” scenario SDI “would always act like a sieve” allowing numerous nuclear missiles to hit America. The UCS publication noted that “one of the ironies of the SDI debate…is that the critics are gradually being proved correct, while the program itself continues to receive ample appropriations from Congress.” The reason for these continued appropriations: SDIO’s shift from talk of a peace shield towards a “new purpose [of] enhanced deterrence.” Now Star Wars had tactical military uses, “a complete change in the goal of the Star Wars program. No longer do we hear President Reagan’s promise that the SDI will render ‘nuclear weapons impotent and obsolete,’ to the contrary, it now appears that the SDI will ultimately be designed to protect nuclear weapons, not our people.”214

The UCS may have pinpointed Abrahamson’s strategy, but could do little to halt Congressional appropriations for SDI. By 1987, the SDIO was working closely with an

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213 This “rail gun” prototype news story is featured in War and Peace in the Nuclear Age: Part 12, Reagan’s Shield, 1988, 60 minutes (ABC); On SDI coverage in network news, see Robert Karl Manoff, “Modes of War and Modes of Social Address: The Text of SDI” Journal of Communication 39 vol. 1 (Winter 1989): 60.

established pro-defense organization, the American Defense Preparedness Association (ADPA), to promote SDI. High Frontier had been producing pro-SDI books, pamphlets, commercials and documentaries for years, but they received little White House support. Reagan administration officials were far more comfortable with the established ADPA than Graham’s fringe group. Founded in 1919, the ADPA promoted itself as “the only organization in the U.S. which unites, through membership and activities, military officers and civilian defense officials; key executives and managers in military installations, plants, and factories; scientists and engineers; weapons designers…and other concerned American citizens.” This “nationwide society” was an “educational…nonpolitical and nonprofit organization [that] promoted national defense. By the 1980s, the organization had over 40,000 members and published a reputable national security newsletter “The Common Defense.” The ADPA, then, was a long-established pro-military organization that had clout within defense and policy circles.215

The ADPA now engaged in its own SDI publicity campaign that sought to dispel UCS criticisms. Like High Frontier, the ADPA would do battle with the UCS, but unlike Graham’s organization—and in keeping with Abrahamson’s strategy—the ADPA only promoted available technologies that could enhance deterrence. ADPA president, retired General Henry Miley, did not focus his energies on television ads or nightly news broadcasts, but within Washington, D.C. A beltline insider, Miley knew established

215 Although the ADPA’s history dates back to October 1919, it went through numerous transformations. After WWI, it was founded as the “Army Ordnance Association” in Washington D.C., but in 1948 it became the American Ordnance Association. In 1965 the organization merged with the Armed Forces Chemical Association. The organization officially changed its name to the American Defense Preparedness Association in 1973. In 1997, the ADPA merged with the National Security Industrial Association to become the National Defense Industrial Association. For the history of the NDIA see “History of NDIA” online at http://www.ndia.org/ABOUTUS/Pages/HistoryofNDIA.aspx (accessed April 8, 2011).
defense industry members: Paul Nitze frequently gave SDI talks to the ADPA; the ADPA’s 1987 “industry award” went to Defense Secretary Weinberger; President Reagan provided videotaped remarks for the ADPA which applauded the “substantial progress” and “great promise” of SDI research. In other words, the ADPA was a respected national security organization with close ties to administration officials.

In 1987, the ADPA worked with the White House to produce an SDI documentary that would “present a variety of major viewpoints on SDI and related strategic issues.” In reality, this film supported the SDIO and stressed the importance of Star Wars research. The ADPA enlisted Abrahamson, Secretary of State Shultz, Defense Secretary Weinberger, and Reagan’s National Security Advisor Frank C. Carlucci to appear in the documentary. Administration officials even allowed ADPA camera crews into the White House to film interviews. Not that the May 12, 1987, filming was hard work—the ADPA provided participants with questions in advance, and suggested “proposed response” bullet points. These talking points avoided mentioning any “peace shield” and instead touted incremental progress towards enhancing deterrence. For example, the ADPA asked Carlucci to promote SDI research as “vital to future Western security” interests and to say that SDI would help the United States “keep the peace” and

216 “Script – SDI Video” found in Box PR011, “Motion Pictures – Film Strips – Recordings” in file 461086, Ronald Reagan Library.

217 See “American Defense Preparedness Association – Individual Membership Services” and transcript of Weinberger’s acceptance speech can be found in File 504620, Box FG 013, WHORM Subject File: American Defense Preparedness Association, Ronald Reagan Library.
“maintain a strategic balance,” not transcend MAD or render nuclear weapons impotent and obsolete.²¹⁸

By 1987, the SDIO had completely rescinded Reagan’s original intent for SDI. They repeatedly stated that SDI had never been an attempt to engage in a new, imaginative program of space-based BMD; instead, Reagan had simply responded to “deep Soviet involvement in strategic defense.” The Soviets, in fact, were the first to initiate SDI-like programs and such programs required “the West to have its own defensive options ASAP.” The ADPA also suggested that the Soviets “have been deeply involved in strategic defense programs…for at least 15-20 years” and that already “their laser weapon program alone involves some 10,000 highly trained scientists and engineers and costs the U.S. equivalent of about $1 [billion] a year.” U.S. “deterrence would be severely undermined if the Soviets had both their first strike-orientated offense and a defense which could take away the credibility of our threat to retaliate.” The SDI program, therefore, simply reinforced the “NATO strategy…to deter any Soviet aggression, nuclear or conventional” against the United States. Before SDI, the Soviets enjoyed a “virtual monopoly in strategic defense.” With SDI that monopoly has “now ended…and that’s a good thing.”²¹⁹

The ADPA documentary also addressed UCS criticisms. Prepared talking points emphasized that Reagan had never hoped for a “leakproof” defense, but simply improved deterrence. Carlucci certainly did “not believe the President had promised too much of


²¹⁹ Ibid.
SDI,” and besides SDI did not need to be leakproof for it to be effective. SDI development would help to ensure improved deterrence. With a multi-layered defense in place “the effectiveness of each layer [becomes] multiplied.” The goal of SDI was simple deterrence. According to Carlucci, “if we can establish effective defenses [or] the effectiveness of deterrence thru defense” SDI would act as “a level for deep reductions in offensive arsenals.” Any accusations that Reagan had no “clear goal or mission for SDI” were unfounded. SDI was always about enhancing deterrence.²²⁰

The ADPA documentary *SDI: A Prospect for Peace* traced the progress in SDI research. To create the film, the ADPA hired the production firm Smith & Harroff Inc. for $250,000. Reagan appears in the film, as do other notable conservative politicians including Weinberger and Indiana Senator Dan Quayle. To add scientific credibility, the documentary features interviews with John Pike of the Federation of American Scientists. The film never made it to network television, however, and the SDIO likely never intended the public to see it. Instead, White House aides and Congressional leaders attended a private viewing of the film at Washington, D.C.’s L’Enfant Plaza Hotel. After the Director of Presidential Appointments and Scheduling Frederick Ryan suggested that Reagan “plug” this film, Reagan previewed it at Camp David and later commented that he was “very enthusiastic” about the film’s message; the President even taped a video

²²⁰“Script – SDI Video” found in Box PR011, “Motion Pictures – Film Strips – Recordings” in file 461086, Ronald Reagan Library.
message to promote the new SDI film, but it only aired on November 1, 1987 in Washington, D.C.\textsuperscript{221}

Limiting \textit{A Prospect for Peace} audience to Washington, D.C. shows the shift in strategy in SDI promotion. The SDIO no longer sought widespread public support for SDI. Instead, they wanted to maintain Congressional support and funding. The film is filled with White House officials delivering scripted lines that suggested SDI was making tangible, steady progress. The goal of the documentary was to convince legislators, not the public, that SDI was providing a return on investment. The documentary downplayed promises of a peace shield or Reagan’s paradigm shift away from MAD. Instead, the ADPA, an organization comprised of military industry insiders who would benefit from continued SDI spending, asked Congressional leaders to continue funding SDI. Congress obliged. SDI funding increased from $1.2 billion in 1984 to $2.5 billion in 1985, $3 billion by 1986, and over $4 billion by 1987. By some analyses, by the end of the Reagan presidency total SDI-related funding topped $22 billion. By selling their vision of Second Cold War missile defense not to the public, but to Congress, the SDIO—in concert with the ADPA—had secured more funding.\textsuperscript{222}


Conclusion

The propaganda examined in this chapter constitutes only parts of a much larger puzzle. The history of SDI contains many components, and historians have traced SDI’s role in shaping political, military, and economic issues during the Reagan presidency. Still, examining this evolution of SDI propaganda reveals—much like previous chapters—that during the Reagan presidency American mass media became a contested forum in which arms race proponents and antinuclear activists battled over public opinion. For SDI, that battle began with Reagan, but was defined by two non-government organizations. Through the use of print media, multi-media presentations, television ads, and mail-in sweepstakes, the UCS and High Frontier battled for American hearts and minds. Their competing visions of how the Second Cold War might end played out on American televisions and in national news stories.

In dealing with these two groups, the Reagan administration engaged in a delicate balancing act. Many in Reagan’s administration remained wary of Graham’s blind optimism that an effective Star Wars program was possible. In time, the administration worked to distance itself, and the President, from High Frontier. Simultaneously, although UCS members remained highly critical of Reagan, White House officials had to accept the organization’s criticisms, if only “grudgingly.” After two years of competing SDI propaganda, the administration worked to redefine what exactly SDI promised. The White House rejected UCS technical and strategic criticisms of SDI, but also downplayed High Frontier’s hopes for a fully effective “peace shield.” Instead, through a newly created organization, the Strategic Defense Initiative Organization (SDIO), the administration crafted its own publicity campaign, one dissimilar to both UCS and High...
Frontier propaganda. Beginning in 1986, SDIO abandoned plans for a peace shield and rejected the President’s promise of space-based defense. Instead, the SDIO promoted only modest advances in Antiballistic Missile (ABM) technology. They now argued that SDI research programs would simply enhance deterrence, not transcend it as the President had previously promised. Such limited promises betrayed Reagan’s vision for an effective nuclear shield, but they also assuaged arguments that SDI was an unrealizable program.\footnote{On Graham and Bendetsen, see Richard Rhodes, \textit{Arsenals of Folly}, 179; Frances FitzGerald, \textit{Way Out There in the Blue}, 121-146; in a 1985 NSC memo asking Robert McFarlane to meet with new UCS Arms Control Adviser Jonathan Dean, McFarlane agreed but signed “approve” line “Grudgingly”; Memo, Sven Kraemer to Robert C. McFarlane, February 8, 1985, NSC Box 8409195, File 298088, Ronald Reagan Library.} Put simply, after the UCS and High Frontier defined the boundaries of SDI zealotry, Washington insiders sought a more moderate course for SDI propaganda.

The SDIO’s message was defined by the extremes of the UCS and High Frontier. To appear credible, the SDIO re-branded Reagan’s vision into simple, straightforward research and development programs that conveniently benefited military industry insiders like the ADPA. The evolution of SDI, from a promise of a peace shield to deterrence-enhancer, reflects private interest groups’ ability to shape public conceptions of a government program. When Congress demanded a return on the SDI investment, the SDIO worked with defense industry insiders and emphasized incremental steps towards missile defense, thereby securing more research and development funds. By 1986 the SDIO abandoned Reagan’s dream to ensure that defense spending continued unabated. Such spending could not last forever, and by the George H.W. Bush presidency SDI had regressed back to détente-era hopes for an effective BMD system. Yet during the mid
1980s, the White House and interested non-government organizations battled over an uncertain idea of nuclear war, or peace, in space. It turns out that the most profitable approach for the White House was to avoid public discussions of nuclear war altogether.
CHAPTER 6: THE DAY AFTER, AN ANTINUCLEAR MEDIA EVENT

“I had the privilege yesterday of viewing the upcoming ABC-TV film The Day After and found it both well-done and powerful. I am all the more convinced that this film could have a significant effect on public opinion, and that an appropriate posture on our part is imperative in order to minimize any damage and/or take advantage of the film to promote our country’s national security interests.”

- Kevin R. Hopkins, Memorandum to Edwin Meese, November 3, 1983

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By the time it aired on Sunday, November 20, 1983, the American Broadcasting Company’s (ABC) apocalyptic docudrama The Day After had become a nationwide media event. The film provided Americans with the starkest dramatization of nuclear war ever put on network television. The Day After depicted the lives of ordinary Americans in Lawrence, Kansas, who try to survive after a nuclear attack. An estimated one-hundred million Americans tuned in that night to watch Soviet nuclear missiles destroy Lawrence and Kansas City. As one New York Times editorial summarized, The Day After was “relentlessly depressing, with scenes of enormous destruction by firestorm, people being vaporized, mass graves, the irretrievable loss of food and water supplies, vandalism and murder, the breakdown of medical care and disfigurement and death from radiation sickness.” Another reviewer noted that the film was powerful because it “removes the unimaginable from the abstract and makes it shatteringly real: this is what a nuclear Armageddon is going to look like.” For millions of television viewers, the film’s message

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was grim: despite what Reagan administration officials had assured them, there was little hope that Americans could prevail in, let alone survive, a nuclear war.225

Instead of analyzing the film itself, this chapter assesses *The Day After* as an antinuclear media event, one that brought the nuclear debate into millions of American homes. According to one critic, “*The Day After*, ABC’s much-discussed vision of nuclear Armageddon, is no longer only a television film: it has become an event, a rally and a controversy, much of it orchestrated.” Concerned about this “orchestrated” antinuclear event, the Reagan administration worked to contain the film’s message. This chapter argues that if the film failed to change minds about nuclear war or gain new converts to the disarmament cause, these failures came only after frantic White House efforts to contain the film’s antinuclear message. This shift of support towards the disarmament cause never occurred because the White House overshadowed *The Day After*’s message with a new, alluring promise from Reagan administration officials that “nuclear war cannot be won and must never be fought.” If the creators of *The Day After* aimed to put the White House on the media defensive, they underestimated the Reagan administration’s ability to go on the offensive.226

To show how *The Day After* allowed the White House to promote a new, more peaceful rhetoric, this chapter is divided into four sections. The first section examines the politics behind this antinuclear film. Director Nicholas Meyer and ABC Circle Films executive Brandon Stoddard envisioned *The Day After* to be a piece of antinuclear

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225 *New York Times* found in George Shultz, *Turmoil and Triumph: My Years as Secretary of State* (New York: Charles Scribner’s Sons, 1993), 374; second quote is from Perrine, *Film and the Nuclear Age*, 154.

cultural activism that could convince millions of Americans to join the disarmament cause. The second section looks at White House efforts to discredit the film’s message in American mass media. The chapter’s third section recaps the November 20 airing of the film and the arms control debates it sparked. Finally, the last section traces the media fallout from this antinuclear film. Ultimately, *The Day After* provided the White House with an unprecedented opportunity to distance itself from the bellicose rhetoric of 1981, 1982 and early 1983. It created an arms control media debate unmatched in American history, one which allowed the White House to publicize its new hopes of preventing, and not winning, a nuclear war.

**Creating The Day After**

*The Day After* began as an idea of ABC Motion Pictures president Brandon Stoddard. Stoddard had produced *Roots*, a popular and powerful miniseries about American slavery based on Alex Haley’s 1976 novel of the same name. After viewing *The China Syndrome*, a 1979 film about a nuclear power plant’s radioactive leak, Stoddard decided to create an antinuclear film. He enlisted screenwriter Edward Hume, who based his screenplay on government literature about nuclear weapons and hoped to show how nuclear war would ravage American society. Already “sympathetic with disarmament,” Hume agreed to do the project because he was “alarmed by the state of [U.S.] defense policy.” Screenwriter in tow, Stoddard now had to find a director. After three directors declined to join the project—citing the film’s depressing nature—Stoddard’s fourth choice, Nicholas Meyer, finally accepted.227

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By 1983, Nicholas Meyer had made a name for himself as a novelist and as a director. Best known for his book *The Seven-Percent Solution* and as director of the popular *Star Trek* films, Meyer agreed to direct *The Day After* out of a sense of duty. “I didn’t want to make this movie,” the director told *The Washington Post*. “I did it to be a Boy Scout, to do my good deed for the day. I did this to be a good citizen. I thought it was a civic responsibility.” Meyer hoped that *The Day After* would stimulate public dialog about nuclear war among apathetic Americans: “I did not want to preach to the converted [but] those who haven’t formed an opinion.”

Meyer prepared for his nuclear war film by immersing himself in antinuclear literature. He read Jonathan Schell’s *Fate of the Earth*, read up on U.S. civil defense plans, and researched nuclear phenomena such as Electromagnetic Pulses (EMPs). Meyer hoped to combine a detailed depiction of nuclear war with a “banal” depiction of American life. By painting a horrific picture on such a plain backdrop, *The Day After* might “sober the world and slow the pace with which we seem determined to turn our planet into a nuclear porcupine.” Meyer’s goal was clear: to “clobber sixty-million people over the head” with his antinuclear film. The director would exceed this goal by roughly forty-million viewers. If gauged in terms of ratings, popularity, and news coverage, *The Day After* stands as the most popular antinuclear media event of the Cold War.

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Weeks before *The Day After* broadcast, critics panned the film as antinuclear propaganda. Meyer maintained that the film was not political, but “fiction based on fact.” *The Day After* even opened with an epigram stating that “although based on scientific fact, the following film is fiction.” As early as October 13, the director explained on National Public Radio (NPR) that the film was simply a “public service announcement,” although he later admitted his elation that ABC was “spending millions of dollars to go on the air and call Ronald Reagan a liar.” Reagan supporters quickly called the film “subjective propaganda against the bomb.” William F. Buckley’s *National Review* sarcastically suggested that *The Day After* was a film “for all of you who thought nuclear war would be a piece of cake” while the *New York Post* asked “Why is Nicholas Meyer doing Yuri Andropov’s job?”

Such criticisms only added to the film’s media buzz, and it did not take long for antinuclear organizations to use *The Day After*’s publicity to promote their own messages. Roger Molander’s “Ground Zero” group, for example, distributed 200,000 viewing guides for *The Day After* that encouraged “people to watch the film in groups and join the [antinuclear] movement.” The “Campaign Against Nuclear War” scheduled two days of antinuclear seminars to coincide with the film. Many groups established 1-800 telephone hotlines in the hopes that concerned citizens would join their organizations. Anticipating a strong response, ABC executives established a phone counseling hotline; so did the White House. By late October 1983, *The Day After* was

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making national headlines. Newspaper ads continued to tout the film as a “starkly realistic drama of nuclear confrontation and its devastating effects on a group of average American citizens.” Noting the film’s ability to increase American antinuclear activism, critic Edward Gorman assessed *The Day After* as “the most powerful use of TV in American history.”

In the 1980s numerous films reflected U.S. nuclear fear; *The Day After* was so controversial because it appeared at the right time. The film aired after months of deteriorating superpower relations and a monumental nuclear arms buildup. By autumn of 1983—after continued covert American operations in Afghanistan, President Reagan’s “Evil Empire” and Strategic Defense Initiative (SDI) speeches, the Soviet downing of Korean Airliner 007, U.S. military action in Grenada, and scientific rumblings about a “nuclear winter”—*The Day After* and the nuclear war it depicted seemed increasingly possible. Adding to its poignancy, ABC planned to broadcast *The Day After* only three days after American nuclear warheads headed into parts of Western Europe. These so-called Euromissiles aimed to counterbalance already present Soviet SS-20s in Eastern

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Europe. Additionally, in *The Day After* a nuclear war breaks out over tensions in Europe, thereby eerily mimicking the real life nuclear standoff between the superpowers.\(^{233}\)

Recognizing *The Day After’s* connections to real world events, as the film’s broadcast date approached news organizations scrambled to assess Americans’ opinions on nuclear weapons. This media coverage led to intense debates between pro-defense advocates and antinuclear activists. For example, writers of the conservative journal *National Review* commented that *The Day After* only supported deterrence: “The producers at ABC obviously want to impress upon us just what might happen if our deterrent becomes unconvincing, tempting the Soviets to treat Lawrence, Kansas, as if it were a Korean airplane.” *The Washington Times* assessed the film differently, stating that the movie would bring “joy to the hearts of the advocates of nuclear freeze and other antinuke types on the eve of the deployment of Pershing II and cruise missiles in Western Europe.” High Frontier, a pro-military organization, accurately summarized such polar viewpoints: *The Day After* “and media coverage of it, would seem to increase the distance, and the level of feelings, between the anti-nuke and the pro-defense factions.”\(^{234}\)

ABC was happy to fuel this contentious nuclear debate. They distributed over half a million “viewer’s guides” to spark conversation, purchased full-page advertisements entitled “The Day After: Beyond Imagining”—which included images of an American


family watching Intercontinental Ballistic Missiles (ICBMs) fly out of underground silos nestled in Kansas cornfields—and scheduled accompanying programs for a week of antinuclear television. One program was “War Games,” a series of late night programs that could show the actual “decision making tactics in government crisis management [that are] designed to prevent escalation and confrontation.” The series, later aired as “The Crisis Game,” included commentary from Clark Clifford, Richard Holbrooke, Arthur Schlesinger, Richard Pipes, and Leslie Gelb. In other words, The Day After did not simply lead to coverage of grassroots activism, but allowed nuclear experts to express opinions. The White House could not ignore such sustained publicity. In the weeks leading up to the film’s airdate—November 20, 1983—the White House focused much of its public relations energies on containing The Day After’s antinuclear message.

The White House Response

White House preparations to contain Meyer’s antinuclear “public service announcement” were swift. Pentagon officials who initially allowed Meyer access to airbases for filming quickly reneged after reading the script because it suggested that the United States started a nuclear war. The Department of Defense (DOD) demanded that Meyer make clear that Soviets, not the United States, were the ones to initiate the film’s nuclear war. The director refused, and the Pentagon retracted permission for ABC access to U.S. Air Force bases or military helicopters. When David Gergen, Assistant to the

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President for Communications, requested script changes to make clear that the United States had not started a nuclear war, ABC ultimately acquiesced. The film’s final cut leaves ambiguous as to which superpower launched first.237

After these early efforts to shape the film itself, in early November the White House began preparations for a widespread media campaign. On November 9, 1983, the National Security Council (NSC) distributed “talking points” so that “all Administration spokesmen” would be prepared to defend “the President’s policies of deterrence and arms control.” These talking points went to “several hundred Administration appointees” as well as “a small number” of influential “conservative columnists.” The NSC prepared a “White House Digest” publication that outlined the President’s views on arms control for members of the press and sent question and answer guides to “all Base Commanders, defense agencies and Public Affairs Officers world-wide” which indicated “the best ways to respond to the film or questions raised by the public or media.” Additionally, a “rotary hot-line was set up for mid-level specialists at the Department of Defense to answer requests from local radio and TV talk shows.” In short, the NSC sought to prepare administration officials and staffers to act as impromptu spokespersons that could defend the President’s policies in the wake of The Day After.238

As the broadcast date approached, the White House became increasingly concerned about the film’s potential impact on public opinion. Administration officials


who had viewed an advance copy of the film on October 7 were especially concerned.

In a meeting on November 14, 1983, one week before The Day After broadcast, more than one administration official found the film both “well-done and powerful.” Others thought that The Day After could “have significant effect on public opinion.” The White House needed a public relations plan that could paint Reagan not as the problem, but instead “associate the President with the concerns of citizens who see this film and are disturbed by it.” The White House would go “on the offensive against those who will try to exploit the film for anti-Reagan purposes” and re-brand Reagan as a peaceful president while coloring film supporters as dangerous.239

There were numerous suggestions on how to contain The Day After and its antinuclear message. Members of the State Department, the Pentagon, the National Security Council (NSC), the Federal Emergency Management Agency (FEMA), and even Science Advisor George Keyworth all joined Assistant to the President for Communications David Gergen in crafting a response to the film. This diverse group of administration officials had myriad concerns. The Pentagon, upset that it had little time to create its own pro-defense film, decided to avoid national television altogether because “we tend to lose in debates.” Instead, the military suggested that an “outside group attack ABC producers on scaring the public.” FEMA had other concerns. The agency had removed “civil defense [propaganda] from [the] public arena a year ago.” The Day After prompted renewed interest in nuclear defense plans, and FEMA had to respond. It

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239 Meeting Minutes, folder “The Day After 11/20/1983 (4 of 5), box OA 9118, Karina Small-Stringer Files, Ronald Reagan Library; in the declassified meeting notes, there is no date given, but notes on the meeting dated November 14, 1983 can be found in “handwritten notes filed by Office of Policy Development Concerning ABC-TV film The Day After,” ID#183993, PR016-01, WHORM Subject file, Ronald Reagan Library.
scheduled a meeting of advisers to come to “D.C. to see the film, and get guidance” on how to resurrect civil defense pamphlets. Keyworth disliked FEMA’s approach, and suggested that new civil defense propaganda would only make nuclear war “sound like a possibility.” Ultimately, FEMA officials were instructed “not [to] engage in public or media debate on the film or on the subject of Civil Defense,” but simply to “prepare letter response[s] to citizens who ask questions about [nuclear] emergency plans.” FEMA developed a new brochure entitled “What You Should Know about Nuclear Preparedness” to provide prompt responses “to requests for information after the film.” In short, it took pressure from The Day After for FEMA to reconsider its plans.240

There was one point on which all parties agreed: The White House should not “fight the film” or “point out technical inaccuracies” because, as White House pollster Richard Wirthlin admitted, the film’s depiction of nuclear war “was credible.” Instead of arguing “with the premise of [The Day After]” they should shift the dialog away from the arms buildup and towards the President’s efforts at maintaining peace. Reagan’s November 11 remarks in Japan, in which he suggested that “a nuclear war can never be won and must never be fought,” proved especially promising. This pithy Veteran’s Day message could defuse accusations that Reagan was too bellicose. The quote quickly became the primary public affairs talking point to defend the President.241

As the November 20 broadcast date approached, the administration braced for a public backlash. They bolstered their phone lines to receive concerned citizens’ calls. The


White House believed that it was important to “avoid dead lines [and] man the phones the night of the film,” a step that would assure “public callers [and] show that we are on the job.” Anticipating a high volume of calls, the White House enlisted “twenty volunteer telephone operators…to answer questions from the public” after the film. These operators were not to console distraught callers, but simply deliver talking points. Specifically, operators were instructed to begin by thanking callers for sharing their concerns; if the caller registered “concern over the effects of nuclear war” operators would assure them that “President Reagan and all of his advisers share your concerns. They all agree that nuclear war would indeed be horrible. But what they have tried to do is to build policies to make certain that [nuclear war] never happens.” Next, operators would remind callers that President Reagan believed that “a nuclear war can never be won and must never be fought.” If callers complained about ABC or the film, operators would be “happy to pass along [such] concerns to President Reagan,” as well as provide literature about civil defense measures or U.S. nuclear policies. If “pressed into a discussion,” operators should emphasize that Reagan, like his predecessors, had a goal to “keep nuclear peace.” Operators were to close calls by emphasizing that Reagan still pursued actual arms reductions, specifically the Strategic Arms Reduction Talks (START). As White House memoranda dictated, callers critiquing ABC or The Day After received positive feedback, while callers critical of the President were presented with pro-peace talking points.242

The White House also sought a strong presence in national newspapers, ideally with pro-Reagan editorials “written, signed and placed” by notable high-level officials.

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Vice President George H.W. Bush provided an anti-*Day After* piece to the *New York Times* which endorsed “preserving peace through deterrence,” an approach that led to real results, including the 1963 Nuclear Test Ban Treaty and the Anti-Ballistic Missile Treaty of 1972. The Vice-President revealed that he knew firsthand of the President’s “sincere and abiding” commitment to arms reductions and that Reagan’s SDI program offered “the best chance of any recent President to achieve genuine arms reductions. Even if he conveniently ignored the potentially destabilizing effects any SDI program might have, Bush remained “convinced…that our policy of strength, deterrence, and serious negotiation holds open the door to lasting peace.”

Defense Secretary Caspar Weinberger provided a similar op-ed piece for the *Washington Post* that promoted President Reagan’s belief that a “nuclear war can never be won, and must never be fought.” Weinberger acknowledged that *The Day After* was frightening, but the film failed to “take us into the minds of the Soviet leaders,” who over the “past two decades…have developed more and more powerful…nuclear weapons…than they could possibly need to deter attack.” This buildup was proof that Americans should be wary of the Soviets because, unlike Reagan, they believed that “a nuclear war can be fought and won.” Ironically, Weinberger himself had previously boasted America’s ability to win a nuclear war. His one-sided assessment of the Second Cold War arms buildup—in which the Soviets had engaged in a fifteen year “one-sided

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arms race, [one that] the United States has not entered”—made no mention of recent U.S. military spending increases.

The media onslaught continued when Kenneth Adelman, director of the U.S. Arms Control and Disarmament Agency, appeared in a guest column for *USA Today*. Entitled “Avoiding Nuclear War,” the piece suggested that while *The Day After* revealed the horrors of nuclear war, it ignored the reality that “only a strong defense will deter nuclear war.” Adelman warned that a nuclear freeze would be a step in the wrong direction and, like Weinberger, he echoed Reagan’s suggestion that nuclear war “cannot be won and must never be fought.” Science Advisor George Keyworth submitted a similar op-ed piece to the *New York Post* which would be reprinted in over one-hundred American newspapers. Keyworth suggested that Americans “must not let our revulsion at the idea of nuclear war turn into feelings of helplessness or despair. Instead, we must rededicate ourselves to doing everything we possibly can to prevent a nuclear war from ever taking place.” Like other administration officials, Keyworth repeated Reagan’s remarks that nuclear war must “never be fought.”

Similar op-ed pieces by mid-level administration officials and conservative columnists echoed these arguments in numerous metropolitan newspapers including *The Washington Times* and the *Chicago Tribune*.

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Each editorial reaffirmed Reagan’s recent calls that nuclear war was un-winnable and that the President recognized the futility of nuclear war.\textsuperscript{246}

In addition to print media, administration officials maintained a strong presence on television and radio programs. On November 20 and 21, Adelman appeared on NBC’s \textit{Meet the Press} and on WHDH-Radio in Boston. Richard Perle was even busier; he expressed pro-administration views on ABC’s \textit{This Week}, CNN’s \textit{Evans & Novak}, CBS’s \textit{Sunday Night Network News} and \textit{Morning News Monday}. Perle also spoke on KABC-Radio in Los Angeles and two major Chicago radio stations. Department of Defense representatives appeared on NPR and a host of major radio networks including New York City, Sacramento, San Antonio, St. Louis, and Schenectady. In addition to these radio and television spots, the White House counted on sympathetic newspaper columnists including Patrick Buchanan, Rowland Evans, and William Safire, to express pro-administration viewpoints.\textsuperscript{247}

The White House also sought public support from pro-administration groups. Karna Small, director of the recently formed Office of Media Relations, contacted numerous organizations and provided “interested groups” and “friendly organizations,” such as the American Security Council and Citizens for America, with White House talking points. Small asked these groups to contact other organizations, specifically Parent Teacher Associations (PTAs) or any “children’s TV groups who may not think children should watch the film.” The American Legion Foundation followed this advice

\textsuperscript{246} Memo, David R. Gergen to the President, November 21, 1983, folder “The Day After (1 of 5), box OA 9118, Karna Small-Stringer Files, Ronald Reagan Library.

\textsuperscript{247} Memo, Sue to Karna Small, November 17, 1983, “The Day After (4 of 5), box OA 9118, Karna Small-Stringer Files, Ronald Reagan Library.
and filed a class action lawsuit “on behalf of those hurt psychologically by [The Day After].” Through Small, the White House had tasked outside organizations with the job of pressuring TV groups to censor the film.248

Numerous groups responded positively to Small’s requests. Republican National Committee (RNC) Communications Director William I. Greener coordinated efforts to discredit the nuclear freeze campaign in the wake of The Day After. Like the White House, Greener did not contest the film directly but shifted the conversation towards “the best way to prevent” nuclear war. To spread the pro-administration message, the RNC sent packets to state chairmen nationwide and emphasized that it was “crucial that…Republican Party leader[s], be prepared to respond to inquiries and make comments…on the film itself and on the entire issue of nuclear arms control.” The RNC packet, which emphasized the President’s plans to prevent a nuclear war, included materials from the National Republican Congressional Committee (NRCC) which criticized the nuclear freeze movement. This NRCC packet requested that Republican critics attack The Day After publicly because the film “exploits emotions, denies reason, [is] particularly disturbing to children, [and] implies that the U.S. would start a nuclear war.” Such propaganda might “contribute to a national hysteria.” The RNC sent a similarly-themed article to Reader’s Digest which asked “proponents of the nuclear freeze a set of questions” critiquing the logic of disarmament. Overall, RNC representatives were to “come across as strong proponents of peace.”249

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248 Sue Memorandum to Karna, “Talk Show Requests,” November 17, 1983, folder “The Day After (4 of 5), box 9118, Karna Small-Stringer Files, Ronald Reagan Library.; the Office of Media Relations was created in the fall of 1981 and combined the Office of Media Liaison and the Television Office.
Citizens for America (CFA) sent similar talking points and position papers to organization chairmen in important congressional districts. Led by Lew Lehrman—president of Rite Aid and former New York gubernatorial candidate—the CFA heeded Small’s request for support. The organization attacked *The Day After* as a “piece of nuclear freeze propaganda,” one which “clearly implies that President Reagan will be personally responsible for causing nuclear war within his term.” On November 15, CFA’s propaganda packets made their way to congressional district chairs and requested that their response to the film be “swift and convincing.”

The CFA suggested that every district chair “hold a press conference concerning the film [on] Monday morning at 11 am.” These CFA packets came with preparation materials, including: a pro-SDI letter from Edward Teller; pro-administration guest editorials; a “Briefing Paper” on strategic defense; a background paper by the conservative Heritage Foundation; a copy of Reagan’s March 23 SDI speech; a copy of George Keyworth’s remarks explaining the technology behind SDI; and even “instructions on how to hold a press conference.” Armed with these materials, congressional district chairmen were tasked with calling ABC affiliates to “express concern over the content and timing of the film [as well as] ask them for time to air an editorial response to the film.” Reagan supporters should “call every television and radio station in [their] district and ask what talk shows will be discussing” the film, and contact “newspapers and offer to write a guest editorial on the subject of strategic defense,” preferably one based on the “sample op-ed piece included.”

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in the packet. In their op-ed pieces, chairmen were to attack the film as propaganda presented “without regard to facts or responsible judgment.” Finally, chairmen should distribute materials to their committee members and involve them in similar efforts. The CFA succeeded in coordinating 110 pro-administration press releases the morning of Monday, November 21.  

The administration’s most fervent source of outside support, however, came from Daniel Graham’s High Frontier organization. Graham created High Frontier to raise public support and private funds for Reagan’s SDI program. Graham’s group anticipated a considerable backlash from The Day After and remained wary that “nuclear freeze groups” would try to “capitalize on public sentiment generated by the film to renew a push for a freeze resolution in Congress.” To combat The Day After, High Frontier crafted its own public relations plan which, like the White House plan, was “not designed to debate the film’s accuracy or to deny in any way the horror of nuclear war,” but instead provide “a means by which the Administration can express its views” and “calm…public fears.” High Frontier hoped to “channel peoples’ [sic] emotional reactions to the film into support for the President’s efforts to strengthen deterrence.”

On November 4, 1983 Graham sent Karna Small his own detailed plan for the High Frontier “Two Day Media Blitz.” Graham expressed concerns that the “pro-freeze film has already stirred a storm of anti-nuclear sentiment across the country.” Because it

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251 Another pro-defense organization, the American Security Council, publicly criticized The Day After in similar methods as CFA and the RNC. See “Activities Regarding The Day After,” Karna Small-Stringer files, Ronald Reagan Library.

252 Before it assumed the moniker “Star Wars” or the acronym SDI, many referred to Reagan’s hopes for space-based missile defense simply as “High Frontier”; Letter, Daniel O. Graham to Karna Small, November 4, 1983, folder “The Day After (4 of 5), box 9118, Karna Small-Stringer Files, Ronald Reagan Library.
was “expected to draw a 50 share [sic] of the audience,” and become one of the “highest rated shows of all time,” High Frontier wanted to run pro-Administration ads during The Day After’s commercial breaks. Graham believed that the White House “must not allow the disarmament lobby to capitalize on this emotional movie [and] play on the fears and frustrations of the citizens of this country.” High Frontier would “provide a sensible alternative” to blind disarmament.253

Graham’s ambitious plan for a two day anti-Day After “media blitz” was detailed. First, High Frontier would purchase full page ads in major newspapers, including The Washington Post, Miami Herald, Sand Diego Union Tribune, Topeka Capital Journal, Denver Post and the New York Times, to spread a pro-SDI message. Next, High Frontier proposed television ads to run during the Ted Koppel Viewpoint special as well as additional sixty-second ads on local stations to sway television viewers. Such media exposure, however, did not come cheap. Because High Frontier simply did not “have the financial resources on hand to purchase this time,” Graham solicited the White House to do some fundraising for his efforts. To cover expenses, Graham suggested that administration officials contact wealthy conservatives, including Joseph Coors and W. Clement Stone, and ask them each to donate $500,000.254

Not surprisingly, the White House rejected Graham’s plan and cautioned administration officials “not to become involved” with High Frontier because “as a general principle, such activities are better handled outside the White House.” Not wanting to lose some of their strongest supporters, Graham later received confirmation

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253 No ads by any organization or sponsor ran during The Day After. Ibid.
254 Ibid.
that President Reagan remained “deeply committed” to his SDI program and that he would follow High Frontier’s efforts with great interest. Despite this fundraising setback, High Frontier filmed its own missile defense documentary that aired the week following *The Day After*; at least forty ABC affiliates nationwide aired the pro-defense special. White House reluctance to aid Graham’s publicity campaign reveals that the administration exercised restraint when dealing with more extreme pro-SDI and anticommunist organizations. In other words, if *The Day After* threatened Reagan with accusations of being a nuclear warmonger, close cooperation with extreme pro-military groups like High Frontier went against new, more pragmatic leadership inside Reagan’s cabinet.255

On November 18, two days before the film aired, the White House publicity plan went into action. On television, pundits speculated on what, if any, role *The Day After* would have on nuclear politics. CBS’s Bill Moyers suggested that the film was powerful because it “contradicts our basic American optimism that everything has a happy ending, even a confrontation between superpowers. It confounds the idea of American Exceptionalism.” On ABC, Fred Gottlieb noted that “*The Day After* has become a political tool [and that] conservatives are concerned that it will play into the hands of the anti-nuclear movement.” Gottlieb was correct. Evangelical leader Jerry Falwell, a long-time Reagan supporter, dismissed the film’s message and commented that “one can think of no other subject from foreign policy to the economy that a network would dare to present in such a one dimensional manner.” The *New York Post* ran another pro-

administration editorial asking “Why is ABC doing Yuri Andropov’s Job?”

Congressman Vin Weber (R-MN) echoed this conservative perspective and criticized the film’s attempt to remove tactical nuclear missiles from the European theater. For a film made by critics of the President’s arms buildup, The Day After was proving to be a great opportunity for Reagan supporters to make their voices heard.  

As the White House requested, many conservative critics suggested that the film might traumatize children. Even those who found The Day After important, such as ABC’s Gottleib, suggested that children should not view the film without parental supervision. Some critics suggested that children not be allowed to watch it at all. One CBS broadcast from Lawrence, Kansas showed a preacher exclaiming “let’s reject the vision of The Day After. Let’s reject it! Let’s reject it for us and let’s reject its despair and doom and gloom for our children.” Another Lawrence resident advised his children not to worry about nuclear war because “adults are working on that. You don’t need to worry about that.” Such coverage suggests that White House efforts to have outside organizations request that children not view The Day After had paid dividends.  

Immediately before ABC broadcast The Day After, White House officials appeared on network news, although Reagan himself remained inconspicuous. Originally, White House officials contemplated having President Reagan appear before the film to explain his arms control stance. Yet, aside from one veiled mention of The Day After in his weekly radio address, the president remained absent from media debates over the

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film. On November 20, instead of the president, Adelman appeared on CBS to spin the film’s message. He argued that *The Day After* only endorsed President Reagan’s foreign policy. According to Adelman, worrying “about a nuclear conflict the day after is useless; it’s managing to prevent one the day before that counts. That’s the real message of tonight’s television movie.” Adelman’s remarks ensured that the administration provided the final commentary before an estimated one hundred million Americans tuned in to watch *The Day After*. By that point, Americans had been subjected to quite a media buildup. All told, the Reagan administration had done an excellent job in spinning the film’s antinuclear message in their favor. They would continue the spin after the credits rolled.  

**ABC’s Viewpoint**

After the film, ABC aired *Viewpoint*, a news special that featured a roundtable discussion in which political and scientific experts commented on the film and other nuclear issues. The program opened with the host, Ted Koppel, explaining that *The Day After* had become “much more than a movie; it has become a national event.” This *Viewpoint* special presented, in prime time, the most diverse, opinionated, and frank exchange on nuclear weaponry of the entire Cold War. Never before had so many Americans witnessed a serious discussion about arms control issues; an estimated sixty-six million Americans stayed tuned for the roundtable discussion. *Viewpoint*’s distinguished panel of guests included Reagan’s Secretary of State George Shultz; conservative columnist William F. Buckley Jr.; author, philosopher, and Holocaust survivor Elie Wiesel; former Secretary of Defense Robert S. McNamara; Nixon’s and

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Ibid.
Ford’s National Security Adviser and Secretary of State Henry Kissinger; Ford’s National Security Adviser and chairman of President Reagan’s bi-partisan commission on the MX missile Brent Scowcroft; and finally, the celebrity scientist and nuclear winter proponent Carl Sagan.259

Choosing these panelists had been an issue of contention within the White House, one that suggested the shift towards pragmatic leadership within the administration. As early as October 7, ABC had asked that top ranking officials from the Reagan administration join the program; the network specifically suggested that U.N. Ambassador Jeane Kirkpatrick and Vice President Bush participate. Many in the administration endorsed sending Bush “to articulate [a nuclear] build-down” but he declined. Ambassador Kirkpatrick also never made the ABC roundtable. Her absence from this nuclear discussion might have come from her rigid, hard-line foreign policy opinions. Put simply, Kirkpatrick would have provided a more caustic pro-administration presence than pragmatists—such as George Shultz—preferred. The White House’s “Public Affairs Strategy for The Day After” also reveals a preference to include pragmatists and moderates in the roundtable. Ultimately Brent Scowcroft, a sympathetic “non-government spokesperson,” appeared in place of Kirkpatrick, while the pragmatic George Shultz appeared in place of Bush. Shultz would join the Viewpoint roundtable via closed circuit from his home. From the comfort of his living room, the Secretary of State

could tout the now common theme that “nuclear war cannot be won and must never be fought.”

Ted Koppel began the Viewpoint program by reassuring the millions of viewers that despite the film’s bleak imagery, “we’re all still here,” and that “what we have all just seen” was not reality, but a frightening possibility in a nuclear world. Koppel pondered whether or not “the vision that we’ve just seen [is] the future as it will be or the future as it may be? Is there still time?” Shultz reassured millions of Americans that The Day After did not depict the future; it only provided a “vivid and dramatic portrayal of the fact that nuclear war is simply not acceptable.” Shultz stuck to the White House “Public Affairs Strategy for The Day After” talking points. He argued that avoiding nuclear war “has been the policy of the United States for decades now—the successful policy of the United States. We simply do not accept nuclear war, and we have been successful in preventing it.”

Koppel, perhaps recognizing that Shultz was simply reciting talking points—indeed the Secretary of State was visibly reading off of cue cards—asked Shultz to humanize his response and to answer as if he were talking to a close family member. Shultz stuck to his talking points: “The only reason that we have nuclear weapons, as President Reagan said in Japan recently, is to see to it that they are not used.” Shultz argued that President Reagan was in fact working to “reduce the number of nuclear weapons,” and that since the 1960s the total U.S. nuclear destructive power had been

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reduced by seventy percent. President Reagan hoped to continue this trend, hopefully by removing nuclear warheads from Europe. Shultz concluded that if Americans could take anything valuable from *The Day After,* it was the “unacceptability of nuclear warfare. It says to those who have criticized the President for seeking reductions—that really that is the sensible course to take. We should be rallying around and supporting…the idea that we should be reducing the numbers of these weapons.” Shultz’s rebuttal to this antinuclear film was impressive: it took only five minutes for the Secretary of State to mention nearly all of the White House’s prepared talking points from its *Day After* public affairs strategy memo.262

After Shultz, Koppel opened the debate to the roundtable. William F. Buckley called the film communist propaganda: “The whole point of this movie is to launch an enterprise that seeks to debilitate the United States.” Buckley criticized ABC executive Brandon Stoddard for creating a pro-freeze film that, if effective in converting Americans to the antinuclear cause, would only weaken the United States. Carl Sagan disagreed. He applauded ABC for “spurring what I hope will be a yearlong debate” on the nuclear arms race. Sagan also capitalized on his *Viewpoint* appearance and explained his scientific theory of nuclear winter in detail.263 Henry Kissinger believed that the film had oversimplified a complex issue. Instead of engaging “in an orgy of demonstrating how terrible the causalities of a nuclear war are,” Kissinger suggested that policymakers focus on how to avoid a nuclear war. Robert McNamara endorsed the film because he did “not

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262 Ibid; “Public Affairs Strategy for *The Day After,*” folder “ABC’s *The Day After* (5 of 5),” box OA 9118, Karna Small-Stringer files, Ronald Reagan Library.

263 Sagan’s comments on nuclear winter are covered at length in chapter six. ABC’s *Viewpoint,* November 20, 1983.
believe that the American people understand the world we live in [nor the] risk we face. There are forty-thousand nuclear warheads in the inventories of the United States and the Soviet Union today, with the destructive power roughly a million times that of the Hiroshima bomb. I don’t know any arms expert, and I doubt that at anyone in this room believes, that in the next ten to fifteen years, that we can reduce that number by more than half.” Brent Scowcroft endorsed a U.S. “military posture which the Soviets—whatever they think about deterrence, when they think about the nature of nuclear weapons—can never imagine that to resort to them makes sense.” Finally, Elie Wiesel urged that Americans not suspend their disbelief with *The Day After*; the holocaust survivor reminded viewers that tragedies on the scale of nuclear war, in which millions of innocents needlessly die, had already happened.264

*Viewpoint* ended with questions from the audience. Some asked about the feasibility of space-based defenses. Kissinger expressed disbelief about any technological fix to the Cold War standoff and Sagan scoffed at Reagan’s SDI program, stating that any “ballistic missile defense system…is dangerous because it lulls us into thinking that we can get away from this problem.” McNamara questioned the logic of “launch on warning” and pleaded that the Reagan renounce this idea and instead propose a policy of no first use. Scowcroft stressed peace through strength; Wiesel shared optimism about human rights and antinuclear movements in Russia; Buckley stressed the need to flex American military muscle to deter a Soviet first strike; and Koppel concluded the

264 Ibid.
program by applauding *The Day After* for shaking up national complacency towards nuclear weapons.\(^{265}\)

**Fallout from *The Day After***

The morning after ABCs *The Day After* and *Viewpoint*, American news media presented two sides of the arms control debate: on one side, disarmament proponents who supported the film; on the other, conservative supporters of the Reagan White House attacked the film. One NBC report from Lawrence, Kansas, showed footage from a conservative rally in which participants burned a Soviet flag. One young man spoke with hostility towards nuclear freeze activists and commented that he was not “just going to wait around until the communists get strong enough and then surrender.” ABC captured another conservative rally in which a participant noted that the film was nothing more than a “two and a half hour commercial for the Kremlin, and they didn’t even have to put KGB actors in it.” Another critic accused ABC of airing “Communist propaganda.” Network newscasts did not nuance this political polarity; many presented caricatured representations of the pro-disarmament side by focusing on counterculture-looking activists at a peace rally. One participant remarked: “I just have very strong feelings about the kind of world we live in. I would like to continue to live in it, you know…” Another activist restated Carl Sagan’s quip that “the way to get rid of nuclear weapons is to get rid of nuclear weapons.” Such coverage was a far cry from the nuanced debate of *Viewpoint*; now, “rednecks” and “hippies” were polarizing news coverage of *The Day After*. Nicholas Meyer may have succeeded in bringing the nuclear debate to the fore of American’s minds, but it was difficult to sustain antinuclear arguments in a frantic news

\(^{265}\) Ibid.
cycle. Soon, network news shifted towards the nonfiction deployment of the U.S.
nuclear warheads in Western Europe.\(^{266}\)

One day after *The Day After*, the White House assessed its public affairs strategy
as a success. On November 21, David Gergen informed the President that White House
“activities relating to *The Day After*” were effective. “Our administration spokesmen (and
women) have done a first rate job over the past few days in promoting your policies
during the renewed debate over nuclear arms.” Gergen made a special point to applaud
Shultz’s performance as “particularly effective in framing the issue [of] (how do we
prevent a nuclear holocaust?) and in providing the answer (support your policies of
deterrence and arms reduction).” According to Gergen, Shultz’s remarks helped the
White House take “the lead” in nationwide nuclear debates. Altogether, these White
House efforts led to a large public show of support for the President’s policies. High
profile officials expressed pro-administration views on twelve national television shows,
fifteen radio talk shows, and in six op-ed pieces in national newspapers. All told, the
White House had executed a highly effective publicity campaign that minimized the *The
Day After*’s antinuclear, anti-Reagan message and continually touted the President’s
hopes to avoid a nuclear war.\(^{267}\)

Throughout this intense public relations battle over *The Day After*, President
Reagan largely left it to administration officials to defend his policies. Reagan had,
however, viewed an advance copy of *The Day After* on October 10, 1983, and evidence

\(^{266}\) Reported by Dan Rather, CBS Evening News, November 21, 1983; Tom Brokaw, NBC Evening

\(^{267}\) Memo, David R. Gergen to the President, November 21, 1983, ID# 487623, box OA 10522, David
Gergen Files, Ronald Reagan Library.
suggests that the film made an impression on him. Many biographers and historians have recounted how Reagan, a former actor, maintained a love of films that never diminished. For Reagan, *The Day After* drove home the horrors of nuclear war in ways military briefings could not. Reagan’s diary entry for October 10, 1983 reads: “I ran the tape of the movie ABC is running Nov. 20. It’s called “The Day After” in which Lawrence is wiped out in a nuclear war with Russia. It is powerfully done, all $7 million worth. It’s very effective and left me greatly depressed.” Reagan’s “own reaction was one of our having to do all we can to have a deterrent and to see there is never a nuclear war.” Reagan mused that not long after viewing *The Day After*, a briefing on U.S. plans for nuclear war “in several ways…paralleled those in the ABC movie,” and disturbingly “there were still some people in the Pentagon who claimed a nuclear war was ‘winnable’. I thought they were crazy.”

Reagan’s mention of the film is important. Numerous biographers and historians have noted how inscrutable Reagan could be in private. *The Day After* is a rare mention of antinuclear propaganda in Reagan’s diaries, and shows that this example of antinuclear cultural activism deeply affected the President. Before he assumed the presidency, and long before the alarming superpower diplomatic debilitations of 1983, Reagan detested nuclear weapons. Yet, by selling his vision of how the Second Cold War might end—with a nuclear war—director Nicholas Meyer not only awakened the American public from its collective nuclear psychic numbing; he also reinforced Reagan’s own fears of

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nuclear war. Reagan once remarked that *The Day After*, while depressing, “didn’t tell us anything…we didn’t already know.” By the time *The Day After* aired, many Americans were still unaware of Reagan’s hatred of nuclear weapons. Even if he remained committed to a policy of “peace through strength,” Reagan’s own rhetoric softened after *The Day After*. The film’s ability to alter Reagan’s thinking about avoiding a nuclear war is impossible to quantify, but the possibility that it helped to shape his approach to arms control negotiations is equally difficult to ignore.

**Conclusion**

In late 1983, surveys stated that *The Day After* did little to change public perceptions about nuclear war. Since then, historians sympathetic to Reagan’s Cold War policies cite these surveys as proof that Reagan’s arms buildup enjoyed popular support. For many scholars, *The Day After* failed to sway Americans because it presented a one-dimensional take on the complex issue of nuclear strategy. Such conclusions are shortsighted. The film, and the media frenzy it sparked, suggests just the opposite. *The Day After* provided the Reagan administration with a challenge that they turned into an opportunity. The White House used this media event to express rhetoric of “peace through strength.” Faced with mounting antinuclear sympathy, the Reagan administration

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executed a public relations campaign that repeated time and again a goal of preventing—and not prevailing in—a nuclear war. *The Day After* allowed administration officials to promote the President as a peacekeeper, not a warmonger. The idea that “a nuclear war cannot be won and must never be fought” became the administration’s new official mantra, and remained a common slogan for the rest of Reagan’s presidency.

Surveys conducted in late 1983 suggested that *The Day After* did little to change people’s feelings about nuclear war. Such assessments never accounted for White House efforts to discredit the film and its message. One survey, for example, found that for viewers, largely “no change occurred in views on the likelihood of nuclear war” and that “most people [remained] pessimistic about the chances of their surviving a nuclear war both before and after the movie.” The study also found that “there was no political fallout from the movie among average viewers [and that] defense and arms control issues showed no movement among those who had just seen *The Day After.*” The same study asserted that while 78 percent of viewers supported a nuclear freeze when the antinuclear film aired, “President Reagan suffered no damage from the movie.”

Numerous diplomatic historians have assessed Reagan’s first term as a struggle between hard-liners and pragmatists. In the early years of Reagan’s presidency, administration officials—such as Richard Pipes, Caspar Weinberger, and T.K. Jones—spoke openly about winning a protracted nuclear war, expressed rampant anticommmunist rhetoric, compared nuclear war to biblical Armageddon, and mused about the value of

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backyard dirt and shovels as effective tools of civil defense.\textsuperscript{273} \textit{The Day After}, a film shot in the shadow of such disconcerting remarks, prompted a media event that the White House could not ignore. By 1983, however, pragmatic administration officials were assuming dominance in the White House. Led by George Shultz, these pragmatists used \textit{The Day After} media storm to stress the administration’s reluctance to wage nuclear war and the President’s belief that nuclear war was un-winnable. \textit{The Day After} did not lead to any sort of reversal in Reagan’s thinking about nuclear weapons or superpower relations. Instead, it allowed the White House to promote its now predominantly pragmatic approach to Soviet-U.S. relations.

\textit{The Day After} is but one example of 1980s antinuclear cultural activism. It utilized popular culture to publicize arms control debates, distilled complex arguments into emotional and humanistic pleas for disarmament, and more importantly, it prompted a serious White House response. \textit{The Day After} media storm was an opportunity for both antinuclear activists and pro-administration officials to win public support. Ultimately it was not director Nicholas Meyer, producer Brandon Stoddard, or the nuclear freeze movement that capitalized on the film’s media coverage; instead it was President Reagan—through his administration officials, and especially Secretary of State George Shultz—provided the night’s simplest and most appealing message: that a nuclear war can never be won and must never be fought. Such a simple line appealed to shocked viewers who had just witnessed the fictional destruction of Middle America. Yet only after this fictional nuclear exchange did the Reagan administration make clear its new policy of preventing, and not prevailing in, a nuclear war.

\textsuperscript{273} Chapter one examines the hard-line rhetoric and politics of Reagan’s first term and recaps important works in Reagan Era historiography.
“Nuclear Winter” is a scientific term that describes the biological and atmospheric consequences of nuclear war. While fiction writers, nuclear theorists, and atomic scientists had previously contemplated the state of the earth after a global thermonuclear war, in 1983 Carl Sagan introduced new consequences with the “nuclear winter” hypothesis. In part, geopolitical events influenced Sagan to promote nuclear winter during the Reagan presidency. In 1983, President Reagan’s “Evil Empire” and “Star Wars” speeches, the Soviet downing of civilian airliner KAL 007, American military involvement in Lebanon and Grenada, and the deployment of U.S. nuclear missiles in Great Britain, sparked world-wide concern. Nuclear winter added scientific plausibility to growing global nuclear fear. The term described a world after nuclear war, one in which radioactive soot and ash would rise into the atmosphere and encircle the globe. For weeks or even months after the initial exchange, the world would remain in a prolonged state of cold and dark. Agriculture would be all but impossible. Starvation would become rampant. Even if the science of nuclear winter seemed complicated, its message was clear: nuclear war would not simply kill millions of people or destroy nations; it might lead to global human extinction.274

The nuclear winter campaign provides historians with a curious example of 1980s antinuclear cultural protest, one that combined aspects of atmospheric science, media savvy, and political activism. Sagan believed that nuclear winter challenged the logic of Reagan’s arms buildup, and especially the President’s calls for space-based missile defense: the Strategic Defense Initiative (SDI). Beginning in the autumn of 1983 and

throughout 1984, Sagan promoted nuclear winter in newspapers, foreign policy journals, scientific publications, and in Congress. Nuclear winter quickly became a contested theory that posed a legitimate challenge to Reagan’s arms buildup.\textsuperscript{275}

Until recently, historians of 1980s antinuclear movements have largely overlooked nuclear winter; even Carl Sagan’s biographers devote relatively little space to this theory.\textsuperscript{276} Recent scholars have started to put nuclear winter back into the history of the 1980s. Historian Paul Rubinson sees nuclear winter as an example of Cold War scientific activism. Much like the fallout debates of the 1950s, test ban debates of the 1960s, or criticisms of nuclear power in the 1970s, nuclear winter debates of the 1980s signaled another scientific call for arms control. Nuclear winter provided Reagan-era activists with a new theory by which to combine science and politics to push an arms control agenda. Rubinson shows that Sagan’s nuclear winter theory marked the reentry of atomic scientists into antinuclear activism.\textsuperscript{277} Another work, Lawrence Badash’s \textit{A Nuclear Winter’s Tale: Science and Politics in the 1980s}, assesses nuclear winter as “an exemplar of twentieth-century interaction between science and society.” Sagan’s theory failed to gain widespread support because it was a victim of “Big Science,” or the growing bureaucratic nature of peer review and government involvement in scientific


\textsuperscript{277} Paul Rubinson, “Containing Science: The U.S. National Security State and Scientists’ Challenge to Nuclear Weapons during the Cold War” (Ph.D. diss., University of Texas at Austin, 2008).
inquiry. Sagan’s nuclear winter publicity campaign was not without precedent; therefore, criticisms of nuclear winter were politically motivated. Badash argues that nuclear winter science was sound, even if it failed to alter the course of Reagan’s arms buildup.

While scholars have done much to explain nuclear winter in political and scientific contexts, they downplay Cold War culture’s influence on Sagan’s efforts to package and promote nuclear winter. More than a pure scientific theory or political issue, nuclear winter was a distillation of science born of Cold War culture.\(^{278}\) Sagan is hardly the first scientist influenced by culture. H.G. Wells wrote of atomic bombs decades before their creation. Historian Michael Sherry’s *The Rise of American Airpower* shows that science fiction predated the dawn of the aeronautic age. Reagan’s Strategic Defense Initiative resembled a weapon from a film in which he played a secret agent. In the 1980s, nuclear winter was simply another atomic scientific theory with cultural precursors.\(^{279}\)

Nuclear winter arose from a combination of Cold War culture, new technological advances, and political motivations. Factors including increased global atomic anxiety, nuclear winter-like occurrences in science fiction, an emerging global environmental awareness, and Sagan’s own increasing involvement in arms control debates—and especially his concerns over Reagan’s “Star Wars” program—combined to make nuclear

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winter possible. This chapter does not contend that these cultural influences should lead scholars to question the validity of the nuclear winter hypothesis. Instead, in much the same way that the idea of atomic bombs predated their scientific realization, so too did popular culture predate Sagan’s 1983 nuclear winter hypothesis.\(^{280}\)

Nuclear winter emerged in the early 1980s because Sagan had difficulty envisioning a nuclear winter scenario before the Second Cold War. As a piece of science, the precursors to nuclear winter have been well-documented; as a piece of antinuclear cultural activism, however, the story is more complicated. The nuclear winter hypothesis combined aspects of 1950s atomic science fiction, the legacy of 1960s anti-war activism, 1970s global environmentalism, and Sagan’s own skepticism of Reagan’s SDI. In the 1980s Sagan would become an antinuclear cultural activist, spreading warnings of nuclear winter throughout American mass media. Well before Sagan embarked on his nuclear winter campaign, Cold War culture allowed him to imagine a scientific theory that would challenge Reagan’s SDI program.

**Nuclear Winter: The Scientific Narrative**

The roots of nuclear winter can be traced back to the 1971 NASA exploration of Mars. The red planet long fascinated Sagan, and he jumped at the chance to work with NASA on the *Mariner* series of explorations. In 1971, NASA’s *Mariner* satellites captured the first images of the Martian atmosphere and surface; they also provided Sagan with his first exposure in American mass media. Journalists gravitated towards the charismatic Sagan, who explained the complex details of this NASA mission in an

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\(^{280}\) On the influences of society and culture on science, see “Discovering the Clay Feet of Science” in Joyce Appleby, Lynn Hunt and Margaret Jacob *Telling the Truth About History* (New York: Norton, 1994), 160-197.
accessible language. Sagan argued that Mars—with its numerous craters and cavernous topography—held more promise for bacterial life than any other planet in our solar system, and this idea quickly captured the public imagination. Thus began Carl Sagan’s career in the public spotlight.  

The 1971 *Mariner* voyage also captured scientific data about the red planet’s atmosphere. Sagan, one of the first NASA scientists to analyze this data, was dismayed to discover that the photographs of the Martian surface were hazy. Unforeseen giant dust storms in the Martian atmosphere had lowered visibility considerably. Relegated to analyzing *Mariner’s* data readings, Sagan noted that the satellite’s Infrared Interferometric Spectometer—an instrument that records particulate levels in the atmosphere—indicated that Mars had unusually high levels of dust in the atmosphere and surprisingly low temperatures on its surface. Sagan made the connection: particulates in the atmosphere were blocking sunlight and cooling the planet’s surface. He began to ponder if dust storms on Earth might lead to similar drops in temperature.  

To study similar environmental effects in Earth’s atmosphere, Sagan recruited a team of atmospheric scientists: his friend Richard Turco, and two former graduate students, Brian Toon and James Pollack. To estimate how atmospheric disturbances might alter global temperatures on earth the team used historical events, such as the 1815 volcanic eruptions on the Philippine island of Tambora, for baselines. Tambora was a significant volcanic eruption. It spread particulates into the atmosphere, blocking sunlight across the stratosphere and lowering global temperatures for months. Historians still refer

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to 1816 as the “year without a summer.” Sagan and his colleagues also applied their research to contemporary concerns, especially aerosols emitted from common household products and commercial airliners.\textsuperscript{283}

During this period, Sagan read two scientific reports that shifted his focus towards the possible atmospheric effects of nuclear war. The first came in 1975 when the U.S. National Academy of Sciences published a report entitled “The Long-Term Worldwide Effects of Multiple Nuclear Weapons Detonations.” Four years later, the U.S. Congressional Office of Technology Assessment published a similar report entitled “The Effects of Nuclear War.” Sagan read these two reports with great interest. Scientists were now examining the previously unforeseen global environmental consequences of nuclear war. Sagan’s group shifted its focus from aerosols to atomic weapons, and in particular the \textit{environmental} damage that nuclear weapons might cause.\textsuperscript{284}

In 1980, the nuclear physicist Luis Alvarez led a group of University of California - Berkeley scientists who presented a new hypothesis on the extinction of the dinosaurs. Alvarez argued that a giant meteor struck Earth roughly 65 million years ago, sending masses of particulates into the atmosphere, blocking sunlight and freezing vegetation. The theory quickly gained scientific and popular support, spawning some 2,000 articles and books over the next ten years. For Sagan, the Alvarez findings suggested that their Martian dust-storm scenario might have already occurred on Earth with extreme


\textsuperscript{284} Badash, \textit{A Nuclear Winter’s Tale}, 49-62; Sagan et al., \textit{The Cold and the Dark}, xiii-xv.
biological consequences. In aftermath of a nuclear war, Earth’s cloudy atmosphere could block sunlight and UV rays for months and devastate the global environment. As Sagan’s group worked to apply Alvarez’s theory to nuclear war, another team preempted their report. In 1982, two scientists—Paul Crutzen of the Max Planck Institute for Chemistry in Mainz, West Germany, and John Birks of the University of Colorado—co-authored an article entitled “The Atmosphere After a Nuclear War: Twilight at Noon.” Crutzen and Birks argued that it was not simply smoke, but also the soot and ash from fires caused by atomic blasts that could trigger global atmospheric and environmental changes. Even more alarming, their article showed that it would not take a total nuclear war, but only a limited nuclear exchange to spark increases in UV-B radiation, composition changes in the troposphere, and stratospheric ozone depletion.

The same year as the Crutzen-Birks essay, the leaders of three philanthropic foundations combined resources to study the long-term biological consequences of nuclear war. These three individuals—including Rockefeller Family Fund’s Robert W. Scriver, the Audubon Society’s President Russell W. Peterson, and the Henry P. Kendall Foundation’s Robert L. Allen—funded a study of environmental effects of nuclear war. They contacted Carl Sagan. He and his cadre utilized their access to NASA’s Ames Research Center and their supercomputers to run basic atmospheric simulations. These

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initial tests confirmed their suspicions: a nuclear war could lead to dire environmental consequences.\(^{287}\)

These influences—the \textit{Mariner 9} findings, the Alvarez report, U.S. government studies on the effects of nuclear war, and the Crutzen-Birks article—combined to help Sagan envision the nuclear winter hypothesis. Sagan did not create the theory of nuclear winter, but he did synthesize strands of scientific research from experts in atmospheric science, environmental studies, and astrophysics. Sagan’s cohort—who now consisted of Richard Turco, Brian Toon, Richard Ackerman, James Pollack, and Sagan—distributed their findings using an acronym derived from the first initials of their last names, “TTAPS,” a moniker that also referred to the military bugle call played at night, an appropriate coincidence given the group’s cold and dark predictions.\(^{288}\) Using a baseline scenario of a 5,000 megaton exchange—roughly one-third of the superpower arsenal—TTAPS predicted that after a nuclear attack massive fires would send plumes of thick, sooty smoke and ash into the atmosphere. Global temperature drops of 25\(^\circ\) Celsius would last for weeks; even summer temperatures would drop below freezing. Daytime light levels would be reduced by 95%. Earth would be uninhabitable. With these disturbing predictions of possible human extinction, Sagan now worked to publicize nuclear winter research to three groups: the scientific community, Congress, and the general public.\(^{289}\)

Initially, Sagan sought scientific consensus. He called for an informal review with specialists and colleagues. Sagan’s celebrity, as well as his intellectual credentials, made


\(^{289}\) Harwell, \textit{Nuclear Winter}, viii-ix.
him a well-known and well-connected name in the scientific community; he had little
difficulty in securing a large group of reputable scientists. Despite some minor critiques,
these scientists largely accepted the plausibility of nuclear winter. Next, Sagan took steps
for a proper peer review. Because of its interdisciplinary nature, nuclear winter
contributors were split between biologists and atmospheric scientists. Each group had
conspicuous leaders. Sagan led the atmospheric side of the study, while Paul Ehrlich
represented the biologists. Like Sagan, Ehrlich was a well-known public figure who had
made headlines as a leader in the “zero-growth” movement of the 1970s in which he
called for a curbing of global population growth. Ehrlich’s association with the nuclear
winter findings added more scientific celebrity to this antinuclear scientific hypothesis.290

Immediately after the April 1983 meeting, Sagan submitted his nuclear winter
findings to a reputable journal, *Science*, which planned to publish the article in December
1983. Sagan, however, was not willing to wait for the entire, lengthy peer-review process.
Instead, he coordinated his own nuclear winter conference to take place in Washington,
D.C., on Halloween, an appropriate holiday considering the theory’s dark predictions.
This scientific conference offered the first example of Sagan’s intent to politicize nuclear
winter. He publicized the two-day event in the October 31, 1983, edition of *Parade
Magazine*, and would later go on national television and a nationwide speaking tour to

290 Historians have downplayed Ehrlich’s importance in the early nuclear winter campaign. H. Lewis,
“How ‘Nuclear Winter’ Got On Page One,” *Newsletter of the National Association of Science Writers*, 32:2
(April: 1984), 7-8; on Ehrlich’s disarmament views, see Paul R. Ehrlich, “Disarmament: The Lesser Risk”
spread warnings about nuclear war. Sagan’s nuclear winter media campaign was now underway.291

This narrative accurately traces the evolution of Sagan’s theory from its early scientific conception, yet there is more to the story. There were also cultural and political influences on Sagan’s nuclear winter hypothesis. Nuclear winter was scientific discovery born of Sagan’s Cold War experiences, his fascination with 1950s science fiction, his professional growth during the 1970s, and his entry into 1980s political activism. More than pure science led Sagan to envision nuclear winter.292

**Cultural Influences**

Understanding the influence Cold War culture played in the formation of nuclear winter means investigating Sagan’s life. Born in Brooklyn in 1934, Carl Edward Sagan entered his teenage years just as the Cold War began. As a child and teenager Sagan was a voracious reader of science fiction, especially one of the genre’s most popular magazines, *Astounding Science Fiction*. According to one biographer, Sagan spent many “long, happy hours reading” the magazine, and his “love of *Astounding* [sic] continued well into college.” Another Sagan biographer confirms this long-held love of sci-fi: “Many a lover of science fiction regretfully puts away [sci-fi] as adulthood, career, and sexuality call one to duty; but not Sagan.” Entering the University of Chicago in 1951, Sagan maintained an “enormous interest in science fiction,” and throughout his college years his dorm room was filled with copies of *Astounding*.293

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Astounding Science Fiction printed some of the earliest tales of global nuclear war. As early as 1945, the magazine’s editor, John W. Campbell, Jr., alarmed readers of a more prestigious publication, The New Yorker, with suggestions that if World War III were to commence, New York City would be reduced to a radioactive “slag heap” in thirty minutes. Campbell’s warnings had merit. Trained as a physicist at Massachusetts Institute of Technology, Campbell knew atomic science. In March 1944, well before the first successful atomic test, he published a story narrating the construction of an atomic bomb. The story’s details proved so accurate that War Department security officials interrogated Campbell. Many Astounding Science Fiction contributors shared Campbell’s acumen for scientific and technical detail. When it came to atomic science fiction, Astounding Science Fiction writers were contributing technically detailed stories based on plausible estimates of nuclear technology.\(^{294}\)

One Astounding Science Fiction story from Sagan’s college years bears a striking similarity to nuclear winter. Featured in the magazine’s April 1957 issue, Christopher Anvil’s sci-fi tale “Torch” tells the story of a tactical nuclear explosion by the Soviet Union that triggers a massive underground oil fire, sending plumes of sooty smoke into the atmosphere and reducing global temperatures. “Christopher Anvil” was the pen name of science fiction writer Harry C. Crosby, who began publishing short stories in the early 1950s. By 1956 Anvil was a regular contributor to the magazine; his stories appeared alongside other popular sci-fi writers including Arthur C. Clarke and Raymond F. Jones.

\(^{294}\) Paul Boyer, By the Bomb’s Early Light: American Thought and Culture at the Dawn of the Atomic Age (New York: Pantheon, 1985), 14, 115, 257.
His 1957 story “Torch” closely resembles Sagan’s nuclear winter hypothesis a quarter of a century later.\footnote{Eric Flint (ed.) \textit{Christopher Anvil: War Games} (Riverdale, N.Y.: Baen Publishers, 2010).}

The narrative of “Torch” is told through a series of short newspaper bylines. The story begins with the Soviet announcement of an intercontinental ballistic launch to commemorate May Day. The day of the launch, American seismologists record violent tremors uncharacteristic even of a nuclear missile test. Soon U.S. experts suspect that the Soviets have tested a new type of “groundhog” missile, one that could penetrate underground bomb shelters—not an uncommon theme for 1950s America and its bomb-shelter craze.\footnote{On bomb shelters in American culture, see Elaine Tyler May, \textit{Homeward Bound: American Families in the Cold War Era} (New York: Basic Books, 1999) 3-5, 92-113; see also Laura McEnaney, \textit{Civil Defense Begins at Home: Militarization Meets Everyday Life in the Fifties} (Princeton: Princeton University Press, 2000).} “Radioactive soot” begins to fall in Japan and eastern Asia. This “black death” soon spreads across the Pacific; by May, American cities are experiencing uncharacteristic “tainted snow” full of “black flecks.” In the days following the missile test, new information emerges: the Soviet “groundhog” missile succeeded in penetrating an underground bunker, but in the process the blast ignited underground oil reserves.

According to Anvil’s detailed text, the burning oil produced “a number of compounds: carbon monoxide; carbon dioxide; water vapor; saturated and unsaturated gaseous hydrocarbons; the vapors of saturated and unsaturated nongaseous hydrocarbons. But the chief constituent seems to be finely-divided [sic] carbon—in other words, soot.”\footnote{Christopher Anvil, “Torch,” \textit{Astounding Science Fiction} (April, 1957): 41-50.}

These oil fires create a global “smog belt” which threatens all nations on earth. Faced with this global, environmental threat, the world’s major political powers put aside
their ideological differences and focus on stopping this destructive smog belt. First the United States rushes to the aid of the Soviet Union, followed by France and England, and finally communist China. Each nation works frantically to extinguish the large Siberian fire. Finally, these nations succeed in suffocating the oil fire, now nicknamed the “Torch.” The global celebration, however, is short lived. Leaders quickly realize that considerable soot remains in the atmosphere. The smog belt continues to block sunlight and lower temperatures, in some cases to one-hundred degrees below zero. The story concludes as the “heavily dressed delegates of the former ‘Communist’ and ‘Capitalist’ blocs” meet to commemorate the end of the first “cold war” but also to take a “solemn pledge to ‘Remain united as one people under God, and to persevere in our efforts together till and even beyond the time when the Cold War shall end.’” The global radioactive soot belt may have destroyed the ideological divisions of the 20th century, but created a new, literal “Cold War” in which the former rivals must work together simply to survive their new harsh, cold, and dark global environment.298

It is difficult to assess with certainty the extent to which Anvil’s story influenced Sagan’s thinking about nuclear winter. Still comparisons between Sagan’s theory and Anvil’s story blur the lines of scientific fact and fiction. Throughout the 1980s, Sagan’s concerns over a possible nuclear winter scenario and his calls for an end to the nuclear arms race in favor of global environmental safety could have come straight from “Torch.” Like Anvil’s story, Sagan warned Americans of an unforeseen “doomsday” device that the superpowers had unknowingly created. Also, just as Anvil had done in “Torch,” Sagan discussed the devastation that could come from thick, sooty smoke from nuclear

war. Finally, as biographers have noted, by 1957, the year in which “Torch” appeared in *Astounding Science Fiction*, Sagan was still an avid reader of the magazine.

Another similarity between Sagan’s hypothesis and Anvil’s story: both used oil fires as possible causes of climatic catastrophe. For Anvil, oil fires were the primary contributor to atmospheric clogging. Sagan did not rely heavily on the oil fire example—opting instead to emphasize the soot to be created from fires in urban and industrial areas—but he did appropriate the oil fire example from time to time. Sagan’s warnings about the soot from oil fires first appeared in his October 1983 *Parade Magazine* article. Sagan later alluded to the damage from oil fires in an audio/visual slideshow presentation he used in university speaking tours. This presentation featured graphics created by his long-time collaborator Jon Lomberg which depicted oil fires and massive smoke plumes rising above the Arabian Peninsula.\(^\text{299}\)

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\(^{299}\) Digital screenshot provided by the artist Jon Lomberg; see also Sagan, “Nuclear Winter” *Parade*, cover; Paul Ehrlich also included this image in “Nuclear Winter: The Inside Story” *CoEvolution Quarterly*, 42 (Summer 1984): cover, 88.
Sagan rehashed the oil fire idea during the first Gulf War. On ABC’s *Nightline*, Sagan predicted to Ted Koppel that the oil fires from the first Persian Gulf War would support darken skies, reduce temperatures, and produce a mini-nuclear winter. Unfortunately for Sagan—and fortunately for the environment—the fires never produced the pernicious effects that Sagan, and Christopher Anvil, predicted. Despite the similarities between “Torch” and nuclear winter, few commentators criticized Sagan for his theory’s similarities to this sci-fi story.  

If Christopher Anvil’s short story “Torch” provided Sagan and other Cold War science fiction fans with an early narrative of a nuclear winter-type scenario, artist Chesley Bonestell gave sci-fi enthusiasts an early artistic representation of nuclear attack. Bonestell specialized in planetary art, or depictions of space based bodies, such as planets, stars, nebulae, and black holes. Decades before NASA photographed any of these

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entities, artists like Bonestell provided visuals for space-based phenomena. Bonestell remains one of the best known planetary artists of the century. He collaborated with sci-fi notables, including Arthur C. Clarke, and fans have celebrated Bonestell’s work for decades; many sci-fi artists have deemed him “the Grand Master of astronomical artists.”

Sagan became a Bonestell fan at a young age. His artistic collaborator Jon Lomberg confirms that Sagan was well acquainted with Bonestell’s work by the time of his 1983 nuclear winter announcement. Also, Sagan’s widow Ann Druyan recalled that just before his untimely death, Sagan had collected a considerable Bonestell collection for their Ithaca home.301

Bonestell’s influence on nuclear winter became apparent in Sagan’s 1990 work *A Path Where No Man Thought*. Sagan wrote the book in collaboration with Richard Turco. While Turco provided much of the initial scientific data for this book—which stands as the definitive work on nuclear winter—Sagan provided the cultural epigrams that adorn its chapters. The book’s images are especially provocative. They include paintings Sagan commissioned from his longtime illustrator Jon Lomberg, photographs of atomic tests, and a Chesley Bonestell painting depicting a nuclear attack on New York City. In *A Path Where No Man Thought*, the image’s caption reads as follows: “Two one-megaton-yield nuclear warheads explode over the New York metropolitan area. Dark, sooty fires are set substantial distances away.”302


The image’s caption reads as an authoritative descriptor and implies that the image accurately represents the urban fires that would occur during a nuclear war. Yet the picture was not commissioned for *A Path Where No Man Thought*. Instead, Bonestell’s image of nuclear war-torn New York came from a 1948 *Collier’s* piece by Robert S. Richardson entitled “Rocket Blitz from the Moon.” This short essay considered the possibility that the Cold War space race to the moon might lead to nuclear missile silos in outer space. The photo’s original caption from *Colliers*, written more than forty years before Sagan included the image in his nuclear winter book, reads as follows: “The beginning of the end for New York. One rocket has exploded between the Empire State Building and the Battery, another in Queens.” The inclusion of this 1948 Bonestell painting should not diminish the accuracy of Sagan’s nuclear winter theory. Just as writers for *Astounding Science Fiction* were often accurate in their technical details and assessments of atomic weapons, Bonestell maintained a reputation for meticulously
researching his subject matter. The inclusion of this image from a 1948 story entitled “Rocket Blitz from the Moon,” however, reinforces the argument that antinuclear culture likely influenced Sagan’s envisioning of a nuclear winter-like occurrences.\textsuperscript{303}

By 1982, a year in which Sagan and his TTAPS group were constructing their nuclear winter hypothesis, a narrative account of a nuclear apocalypse in the \textit{New Yorker} astounded millions. In a series of essays that would become the bestselling book \textit{Fate of the Earth}, Jonathan Schell had described the pernicious biological and ecological effects of a nuclear attack. There is a striking similarity between Schell’s narrative account and Sagan’s scientific report, a correlation made stronger by the proximity of each publication. \textit{Fate of the Earth} and nuclear winter are similar in many ways, but while Schell mused on the theoretical consequences of nuclear war, Sagan attempted to quantify those perils through computer models and scientific calculations. For Sagan, the distinction came with his own emphasis on the “climatic effects” of nuclear war that Schell played down. According to Sagan:

Jonathan Schell does argue that extinction is not only a possible but perhaps even a likely consequence of nuclear war. However, the argument is built upon blast, fire, prompt radioactive fallout, and depletion of the ozone layer, without any climatic effects included. The book was published just as nuclear winter was being discovered. Although Schell could not have discussed nuclear winter, in the broadest sense he anticipated it: ‘Given the incomplete state of our knowledge of the Earth, it seems unjustified at this point to assume that further developments in science will not bring forth further surprises.’

As Sagan admits, Schell’s book complements nuclear winter nicely. Schell agreed; by 1984 his follow-up to \textit{Fate of the Earth}—aptly titled \textit{The Abolition}—he applauded nuclear winter research. More than Schell influencing Sagan—or vice versa—the close

\textsuperscript{303} Ibid.
proximity of these two similar apocalyptic predictions speaks to the heightened levels of atomic anxiety in the early 1980s. When asked whether he believed that Carl Sagan conceived of nuclear winter after reading *Fate of the Earth*, Schell thought no. In Schell’s only meeting with Sagan, the Cornell scientist admitted that he only read *Fate of the Earth* after his nuclear winter research began, although the book confirmed for Sagan his predictions “ex post facto.” Additionally, as the scientific narrative shows, Sagan’s research into nuclear winter coincided with Schell’s own late 1970s research into the environmental consequences of nuclear war.

Sagan and Schell were part of a larger trend; in the 1970s, investigations into global ecological effects of nuclear war increased alongside the burgeoning American environmental movement. By the 1970s, the possibility of global environmental degradation seemed real, and the rise of global environmentalism helped Sagan to envision nuclear winter in important ways. First, the trend to consider environmental issues not just at the local, but at the global level, appealed to Sagan’s expertise as a planetary scientist. Sagan preferred to view the world as an interconnected community, not as a fragmented sphere of Cold War ideological subdivisions. Global environmentalism allowed scientists like Sagan to preach the importance of global concerns over political divides. For example, Sagan’s collaborator in publicizing nuclear winter, the Stanford biologist Paul Ehrlich, made a career out of promoting the dangers of

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305 Question by the author to Schell, November 6, 2010, German Historical Institute conference “Accidental Armageddons: The Nuclear Crisis and the Culture of the Cold War in the 1980s,” held in Washington D.C., November 4-6, 2010.

**Environmental Influences**

Nuclear winter was not the first warning of the environmental effects of nuclear war. In 1949 \textit{Popular Astronomy} published an early study of the environmental effects of nuclear weapons. In 1955 John von Neumann gave congressional testimony warning that dust produced by nuclear attacks could trigger another ice age. The fallout debates of the 1950s exposed the threat nuclear weapons posed to the environment. As “downwinders” from bombs like “Dirty Harry,” radioactive-related illnesses increased. Soon the Senate was debating the safety of above-ground nuclear testing. Barry Commoner’s famous baby-tooth tests confirmed fears that radioactivity was spreading across the earth’s atmosphere and entering the food chain. Commoner provided the first well-publicized example of how nuclear weapons posed a global environmental threat. By the 1980s, however, nuclear winter scientists began addressing not just the global radioactive effects from nuclear weapons, but the environmental consequences of nuclear war.\footnote{Ben Hur Wilson, “Behavior of the Atmosphere under Atomic Disruption,” \textit{Popular Astronomy} 57, issue 7 (1949): 320-322; on John von Neumann see Sagan and Turco, \textit{A Path Where No Man Thought}, 42; Allan Winkler, \textit{Life Under a Cloud: American Anxiety About the Atom} (Urbana: University of Illinois Press, 1999), 84-108, 143.}
Before the late 1960s, environmental concerns were largely local; local environmental issues including clean water and endangered species preservation dominated the movement. In the 1970s, however, environmentalists began to shift focus from the local to the global. The first “Earth Day” arrived in 1970 and provided Americans an opportunity to increase their global environmental awareness. One influence on this new global awareness was the issue of ozone depletion. Scientific studies showed that spray cans containing harmful fluorocarbons added dangerous CFCs to the atmosphere; it did not take long for environmental activists to clamor for a ban of these harmful consumer products. Nuclear winter studies began when Sagan, Turco, and Toon worked to produce models tracing the harmful effects of aerosols on the ozone layer. In part, nuclear winter was a byproduct of a new nexus between nuclear concerns and global environmentalism.

Another important event in the establishment of 1970s growing global environmental awareness came from the 1968 Apollo 8 spacecraft and its photographs of Earth. These images would come to represent a politically and environmentally connected Earth by allowing, for the first time, global citizens to view the earth from space. These “pale blue dot” photos provided images devoid of national boundaries. This image proved powerful and adorned the cover of Life Magazine’s 1968 year-end edition. Also known as the “Blue Marble” or “Spaceship Earth” photographs, these images symbolized a growing awareness of an interconnected Earth.³⁰⁸

³⁰⁸ Badash, A Nuclear Winter’s Tale, 37-38; Life, January 10, 1969, cover.
Political rhetoric in the 1970s reflected the power of this “Spaceship Earth” image, one that depicted a world not bound by national boundaries or ideological divisions. For example, President Nixon’s 1972 speech to Congress on his environmental agenda referenced the photo. Nixon remarked that Americans were “now growing accustomed to the view of our planet as seen from space; no matter what else divides men and nations, this perspective should unite them.” “Spaceship Earth” became a symbol of a united world, one that global citizens could preserve if they could

309 Life, January 10, 1969, cover.

only prevent nuclear annihilation or environmental catastrophe. The picture proved especially powerful for Sagan, who in 1981 contributed the following excerpt to President Jimmy Carter’s farewell address. Sagan’s words reflect the iconic status of the spaceship earth and its representation of a unified earth:

Nuclear weapons are an expression of one side of our human character. But there’s another side. The same rocket technology that delivers nuclear warheads has also taken us peacefully into space. From this perspective, we see our Earth as it really is—a small and fragile and beautiful blue globe, the only home we have. We see no barriers of race or religion or country.

Sagan’s words, as delivered by Jimmy Carter, reflected not only Sagan’s own belief in a peaceful world, but the growing belief in an interconnected global environment which could provide a common cause for people all across the globe.

Sagan often conjured up the image of “Spaceship Earth” when emphasizing a sense of the global environment, and his later writing reveals his reactions to these early, powerful images: “From Earth’s orbit, you are struck by the tender blue arc of the horizon—the Earth’s thin atmosphere seen tangentially. You can understand why there is no longer such a thing as a local environmental problem.” The image was used in the Sagan-led conference on nuclear winter. The conference’s closing speaker, Dr. Walter Orr Roberts, remarked on the image of an interconnected biosphere floating in space: “As citizens of our own nation states, and as residents of ‘Spaceship Earth,’ we must indeed

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invent and enact policies that covenant a stable future for the planet, and for its pragmatists, poets, saints, soldiers, and indeed for all living, sentient beings.”

The “Spaceship Earth” image gave a new global perspective for the environmental movement, but that same year emerging studies on global catastrophes provided new ecological fears. The “zero growth” movement became the most famous global ecological initiative of the late 1960s and early 1970s. Led by Stanford biologist Paul Ehrlich, “zero growth” advocates pushed for new restrictions on global populations. Their neo-Malthusian predictions warned that overwhelming global populations would push Earth’s natural resources to their limits. Ehrlich’s book on the subject, *The Population Bomb*, became a bestseller. Ehrlich’s book started a trend. Ecologists in Great Britain published *A Blueprint for Survival* which warned of a global breakdown of society if population levels remained unchecked. The Club of Rome published *Limits to Growth* which argued that population growth—coupled with global atmospheric pollution—would exhaust Earth’s natural resources. Predictions of ecological doomsday sparked debates about humans pushing the global environment to its limits. Ehrlich would rehash this line of argument in the 1980s as a part of Sagan’s nuclear winter campaign.

Sagan and Ehrlich were the perfect pair to spread warnings of global environmental devastation. Both scientists contributed to the biological studies of nuclear war’s effects, and their writings resonate with the lingo of global environmentalism. In

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his warnings about nuclear winter, Sagan remarks that “the global ecosystem can be considered an intricately woven fabric composed of threads contributed by the millions of separate species that inhabit the planet and interact with the air, the water, and the soil.” For Sagan and Ehrlich, nuclear winter was frightening not simply because of the initial deaths from nuclear war, but the long-term environmental damage that would follow an attack, as their writing reveals:

Species extinction could be expected for most tropical plants and animals, and for most terrestrial vertebrates of north temperate regions, a large number of plants, and numerous freshwater and some marine organisms…Whether any people would be able to persist for long in the face of highly modified biological communities [or] novel climates…is open to question. It is clear that the ecosystem effects alone resulting from a large-scale thermonuclear war could be enough to destroy the current civilization in at least the Northern Hemisphere.  

Sagan and Ehrlich had appropriated the rhetoric of environmental science for arms control debates. As environmental discourse became littered with such language, by the 1980s nuclear winter seemed all the more plausible.

**Disarmament Politics**

Sagan began his political activism during the turbulent 1960s, the decade in which he entered graduate school and embraced the counterculture. As an undergraduate, Sagan volunteered to canvass for the Democratic Party, teach science seminars in Tuskegee, Alabama during the civil rights era, and attend Vietnam War protests. In short, Sagan’s politics were fairly liberal. His interest in antinuclear activism, however, originated from his admiration for Linus Pauling, the Nobel Prize-winning chemist who in the 1950s warned Americans about the pernicious effects of radioactive fallout. To Sagan, Pauling

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was an example to follow: the scientist as activist. Yet Sagan would not publicly protest nuclear weapons until his third marriage to Ann Druyan, who encouraged Sagan to focus less on the cosmos and more on earthbound political issues.315

Sagan believed that nuclear weapons represented the most important political issue of his lifetime. He made his stance on disarmament clear with the final episode of his hugely successful 1981 PBS television series *Cosmos* in an episode entitled “Who Speaks for Earth.” In the episode, Sagan expressed concern that mankind might destroy a fragile planet over ideological differences. In a “dream sequence” Sagan shares his concerns that technology, if used for weapons, can destroy civilizations—even those on earth. In the dream, Sagan is situated in a spaceship, and he listens from afar as television and radio waves from Earth reach him in the Cosmos. As chatter about nuclear test ban treaties give way to increasing hostilities in Europe, the signal goes dead. Sagan then muses on Earth’s fate: “What had we done to the Earth? There had been many ways for life to perish at our hands. We had poisoned the air and water; we had ravaged the land. Perhaps we had changed the climate. Could it have been a plague…or nuclear war?”

Sagan reveals that in his dream, it “was nuclear war, a full nuclear exchange” that destroyed civilization. This message proved powerful, and in 1981 Congressman Stephen Neal (D-NC) entered “Who Speaks for Earth?” into the *Congressional Record*. Sagan repeatedly summarized his warnings about civilization’s fragility and nuclear war; for example, at one Union of Concerned Scientists (UCS) meeting he mused “what a waste it

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would be if after four billion tortuous years of evolution if the dominant organism contrived its own self-destruction. We are the first species to have devised the means.”

These examples show that at onset of the Reagan presidency, Sagan’s antinuclear activism was on the rise. President Reagan’s rhetoric and American military actions abroad—including the U.S. military presence in Lebanon, the invasion of Grenada, and covert operations in Afghanistan—the Evil Empire Speech, the shoot down of KAL 007, and the Euro-Missile Crisis concerned many Americans. By 1983 Sagan sympathized with the “nuclear freeze” movement. Yet it was Druyan who pushed Sagan to physically protest a nuclear silo site. Still, Sagan did not fully devote himself to the antinuclear cause until a close brush with death in 1983.

On March 23, 1983, Sagan lay recovering in his hospital room. Complications from surgery for an esophageal disorder left him close to death. That night, Druyan informed him of President Reagan’s call for a “Strategic Defense Initiative.” Reagan had called upon the nation’s scientists to create new technologies and provide “the means of rendering these nuclear weapons impotent and obsolete.” Sagan recoiled at Reagan’s plan. He asked Druyan to transcribe a letter protesting Reagan’s Strategic Defense Initiative (SDI) and gave her a list of colleagues who would sign it. Sagan believed that

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318 FitzGerald, Way Out There in the Blue, 16-25; 135; Reagan’s SDI program is covered at length in Chapter 3.
Reagan’s “Star Wars” plan could further destabilize Cold War relations and escalate the arms race. To challenge Reagan’s program, Sagan worked with the Union of Concerned Scientists to publish a short work entitled *The Fallacy of Star Wars*. Written and published before Sagan’s nuclear winter announcement, the book reveals Sagan’s already hostile stance toward weapons in space. In other words, before his nuclear winter announcement in October of 1983, Sagan was already engaging in antinuclear activism.⁴¹⁹

**Conclusion**

Carl Sagan, his biographers, and historians of nuclear winter have constructed a useful narrative that traces the theory’s scientific roots. Without Sagan’s participation in the *Mariner 9* program, the Alvarez report on dinosaur extinction, and the Crutzen-Birks report on the environmental consequences of nuclear war, science might not have created nuclear winter. Yet this historical narrative neatly considers only the scientific influences on nuclear winter. This chapter suggests that other influences which predated nuclear winter helped Sagan to envision this antinuclear theory. Science fiction envisioned nuclear winter-like scenario decades before its creation. Sagan’s own work with aerosols and atmospheric science was indicative of a growing global environmentalism that influenced nuclear winter arguments. Events in Sagan’s life, including a new marriage, a

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near-death experience, and his growing involvement in the antinuclear cause, pushed him to engage in 1980s antinuclear activism. Finally, Sagan’s own animus towards Reagan’s SDI program motivated him to vigorously attack the administration and articulate a sweeping, bilateral arms reduction plan. Nuclear winter was bona fide science, but for Sagan it became something more: a useful tool to enter arms control debates.

In revealing these similarities between nuclear winter and Cold War culture, politics, and environmentalism, this chapter does not aim to diminish nuclear winter’s relevance as scientific theory. Science is not created in a vacuum. Sagan envisioned the nuclear winter hypothesis after numerous works of science fiction and a rising awareness in global environmentalism suggested the possibility of a worldwide ecological catastrophe; but he also undertook considerable scientific research with a group of specialists to predict a nuclear winter. Historians of nuclear winter have argued that Sagan did not create nuclear winter as much as he synthesized varying strands of science to comprise a unified idea; these scholars are largely correct, but there is more to the story than simply science. Just as Sagan borrowed ideas from other scientists, nuclear winter reveals contributions from more unlikely influences.

Like most scientific theories, nuclear winter was a product of its era. Sagan was not simply an objective scientist; he was a political activist who sought to use science to push an agenda of disarmament. To conceive of nuclear winter, Sagan’s experiences throughout the Cold War influenced his ideas about the world after nuclear war. To spread his nuclear winter agenda to millions of Americans, Sagan—the most popular scientist of his generation—used his cultural capital to spread his warnings of nuclear
doom and possible environmental catastrophe in American mass media. When in
1983 Sagan first attacked Reagan’s SDI through his nuclear winter media campaign, the
White House was ready.
Carl Sagan was a credible scientist, but in the case of nuclear winter he became an antinuclear cultural activist. Sagan warned Americans about nuclear winter not only in academic journals, but in American popular media. Sagan’s appearances on network television earned him scorn from some in the scientific community and led many to question the validity of, and political motivations behind, nuclear winter. This chapter argues that more than the science of nuclear winter, Sagan’s choice to popularize this atomic hypothesis in popular media opened nuclear winter to a litany of criticisms.

Sagan’s efforts to promote nuclear winter simultaneously in peer-reviewed journals and on network television proved difficult. His struggles to inform Americans of nuclear winter reveal the pitfalls in popularizing science in a media age. Those pitfalls remain today, most notably in recent efforts to curb global warming. According to two recent historians, Sagan’s efforts to popularize nuclear winter prompted an attack from the political right that “was a dress rehearsal for bigger fights yet to come,” such as contemporary climate change debates.320

Nuclear winter was a scientific collaboration, but Carl Sagan remains the single most important figure in its popularization. There were other publicists, however; Paul Ehrlich, Soviet scientist and television celebrity Sergei Kapitsa, and Sagan’s wife and frequent co-author Ann Druyan all worked to publicize this hypothesis. Yet only Sagan could popularize the science of nuclear winter so effectively. According to his collaborator Richard Turco, “there was no greater force behind the development of the nuclear winter theory, and its application to critical issues of nuclear weapons policy, than the single-minded determination of Carl Sagan.” It was not Sagan, however, but the other members of the TTAPS group—Turco, Brian Toon, Thomas Ackerman and James Pollack—who did the lion’s share of scientific work to create nuclear winter; yet only Sagan had the media savvy to engage in simultaneous scientific and multi-media campaigns.321

Sagan was both a reputable scientist and a public figure. In his career, Sagan wrote hundreds of scientific papers which appeared in peer-reviewed journals. His research contributed to studies of CFCs, the “greenhouse effect,” and numerous aspects of planetary science. Yet his role as a scientific celebrity allowed Sagan to engage in antinuclear cultural activism. Sagan’s popularity had been growing since the 1970s when he became the informal public face of NASA’s Mariner missions. In the late 1970s, Sagan became a frequent guest on Johnny Carson’s Tonight Show, and his PBS series Cosmos became the most widely watched program in public television history. In 1985 the print version of Cosmos earned Sagan a Pulitzer Prize and became the most widely

read scientific work in the history of the English language. By 1983, Sagan was contributing to the popular Sunday newspaper *Parade Magazine*, which had an estimated eighty-million weekly readers. In short, by the early 1980s Carl Sagan was an instantly recognizable figure in American life.³²²

Sagan capitalized on his popularity and went to extraordinary lengths to warn Americans about nuclear winter. He hired a public relations firm to coordinate optimal media exposure; he enlisted artists and composers to create visual aids for his talks on nuclear winter. Sagan sought to transform nuclear winter data into images and concepts that could capture the public’s imagination. Sagan spread nuclear winter warnings on network news broadcasts, in popular magazines and scientific journals, and in an international speaking tour. He even debated Reagan administration officials on national television and argued with nuclear specialists in Congress. Taken together, this nuclear winter media campaign followed months of careful planning. Sagan’s efforts allowed nuclear winter to reach a popular audience. With nuclear winter, Sagan was simply doing what had made him famous in the first place: distilling complex science for public consumption.³²³

Sagan soon discovered the problems of this multifaceted approach. As he attempted to balance credibility with popularity, publicizing nuclear winter on network television while simultaneously submitting articles to peer-reviewed publications, critics viewed Sagan’s theory as less than credible. Their skepticism first arose when even


before nuclear winter articles appeared in the reputable publication *Science* and the diplomatic journal *Foreign Affairs*, Sagan published a truncated nuclear winter essay in *Parade Magazine*. Sagan’s balancing act between influencing scientists, policymakers, and a broad American audience may have been impossible for anyone; yet Sagan’s foray into popular media provided disastrous. It opened Sagan and nuclear winter to attacks from non-experts. This final point is important: many politically conservative critics had more difficulty discrediting nuclear winter science than attacking Sagan’s publicity campaign. Critics’ attacks on nuclear winter appealed to the Reagan administration.

Wanting to pursue its “peace through strength” initiative—which meant a continued arms buildup—the White House frequently cited these so-called “experts” who attacked Sagan. While Sagan’s antinuclear cultural activism popularized nuclear winter to the general public, these efforts also opened Sagan to a conservative backlash in print and television media.  

To examine how Sagan’s media campaign opened nuclear winter to criticisms, this chapter is organized into five sections. It begins with an overview of the nuclear winter media campaign—in other words, Sagan’s efforts to market nuclear winter. Next, it examines Sagan’s use of a public relations firm to engage in antinuclear cultural activism. The chapter’s third section traces Sagan’s use of artists to represent nuclear winter; next, it recaps the implementation of this media blitz in concert with other

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324 Sagan’s *Foreign Affairs* article stated that because of nuclear winter, even a successful surprise nuclear first strike would amount to national suicide for the aggressor, as well as all nations on earth. For this reason, Sagan pleaded that global nuclear arms should be reduced by 99 percent. Carl Sagan, “Nuclear War and Climatic Catastrophe: Some Policy Implications,” *Foreign Affairs* 62, no. 2 (Winter 1983/1984): 257-292; these arguments were reprinted in Ehrlich et al., *The Cold and the Dark*, 59-60; Paul Rubinson, “Containing Science,” 314-336.
examples of antinuclear protests in popular media, including popular newspapers, network news broadcasts, and media events such as the ABC television movie *The Day After*. The chapter concludes by showing that for all of Sagan’s efforts, he did little to convince the Reagan administration to alter its nuclear arms policies.

Sagan’s antinuclear cultural activism not only caught the attention of major news outlets, but world political and religious leaders as well. While within the United States conservative critics repeatedly discredited Sagan, internationally nuclear winter found much broader support. Because of successful media presentations in Australia, New Zealand, the Kremlin, and even the Vatican, Sagan’s efforts alarmed the National Security Council (NSC). Sagan’s activism threatened Reagan’s foreign policies. Yet Reagan’s efforts to improve relations with new Soviet Premier Mikhail Gorbachev shifted media attention away from Sagan and towards superpower summits. Nuclear winter would gradually lose relevancy as Second Cold War nuclear tensions faded. By the Reagan-Gorbachev 1985 summit meetings in Geneva, American nuclear fears were on the decline. Without such fear, nuclear winter lost its potential ability to shape U.S. arms control debates.

**Marketing Nuclear Winter**

On October 30, 1983 Sagan announced the nuclear winter theory to millions of Americans in *Parade Magazine*. While American authors had imagined the environmental consequences of nuclear war—most notably as put forth in Jonathan Schell’s *The Fate of the Earth*—Sagan argued that there was now scientific evidence that nuclear war could lead to human extinction. Whereas Schell suggested the possibility of nuclear war leading to extinction, Sagan provided scientific evidence to support such
claims. Sagan’s predictions were all the more alarming because nuclear winter appeared during a period of declining superpower relations and rising atomic anxiety. Reagan’s recent denunciation of the Soviet Union as an “evil empire,” his call for a Strategic Defense Initiative, the planned deployment of U.S. nuclear missiles in Europe, and the Soviet shoot down of Korean Airliner 007 made 1983 a pivotal year in Cold War superpower relations. These events propelled the nuclear freeze movement to national prominence, and for the first time since the 1962 Cuban missile crisis, nuclear war again seemed to be a real possibility. These events, but especially the President’s SDI announcement, pushed Sagan to promote nuclear winter. 325

Throughout 1983 Sagan worked with the Union of Concerned Scientists (UCS) to discredit SDI. He co-authored op-ed pieces and books that criticized “Star Wars” as an unworkable and dangerous program. Sagan and the UCS did not view SDI as a defensive weapon, but as a fanciful myth of missile defense that, if pursued, would only escalate the arms race. “Sagan was dead-set against SDI,” remembers Richard Turco. “Sagan saw [nuclear winter] as a way to get something done. The nuclear freeze movement was on at the time, and he saw [nuclear winter] as an important discovery.” 326 Nuclear winter provided Sagan with more ammunition in his battle against Reagan’s arms buildup.

325 On U.S. foreign policy during the Reagan era, see George C. Herring, From Colony to Superpower: U.S. Foreign Relations Since 1776 (Oxford: Oxford University Press, 2008), 861-916; Robert Collins, Transforming America: Politics and Culture during the Reagan Years (New York: Columbia University Press, 2007), 193-218; Chapter one recaps these events in greater detail.

Turco believes that for Sagan “nuclear winter was a tool to get the public…thinking about [nuclear war],” and that Sagan used nuclear winter to drive “a lance straight into the heart of a firmly established nuclear weapons infrastructure that had been for four decades essentially unconstrained in its assumptions, actions, and budgets.”

Nuclear winter had marketable characteristics; it added a new image and new term to a nuclear lexicon undergoing a renaissance in the early 1980s. It joined an expanding atomic phraseology that permeated popular culture. The “nuclear freeze” campaign, for example, proved to be an extremely durable and catchy phrase. It distilled the complexities of nuclear defense strategy to one simple proposition: a bi-lateral halt on the production of nuclear weapons. Such clear-cut simplicity appealed to millions of Americans. So, too, did Reagan’s Strategic Defense Initiative (SDI), a hope that one day nuclear weapons might be rendered “impotent and obsolete.” Reagan’s SDI added a new acronym to an atomic lexicon already dominated by ICBMs, IRBMs, MIRVs, SALT, and MAD. Like the “nuclear freeze,” “Star Wars” or “SDI,” “nuclear winter” was a phrase that helped to market a new and innovative atomic idea.

The phrase “nuclear winter” came not from Sagan, but from TTAPS collaborator Richard Turco. In 1983, Turco completed a final draft of the TTAPS findings and submitted his report to Science for official peer review. NASA, however, refused to let the phrase “nuclear war” be included in the group’s title. According to Turco the original

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title of the article was “The Environmental Consequences of Nuclear War” but “the manuscript had to go through a vetting process at NASA.” Turco attributes issues over the report’s title to “a very conservative government.” Turco’s manuscript eventually returned to the author with suggestions that the “title about ‘nuclear war’ is unacceptable.” As Turco explained, “some of the managers at NASA were worried that there would be repercussions if it were somehow shown by their scientists that nuclear war was bad for the world. At the last minute I had to come up with a new title.” Turco imagined the state of the earth after a nuclear war and its cold and dark radioactive atmosphere and created the phrase “nuclear winter.” The term proved invaluable in publicizing the TTAPS findings; so did the TTAPS acronym. Pronounced “taps,” the acronym shared the name of the military bugle call played at lights-out or at funerals. TTAPS provided Sagan with yet another useful cultural reference in a media campaign laden with cold, dark, and deadly imagery.329

Turco’s nuclear winter provided a new imagining of a post-apocalyptic world. For decades, Cold War atomic culture offered images of the apocalypse. Through films, literature, and comic books, any nuclear apocalypse conveyed death via atomic blast, heat, and the invisible poison of radiation. “Nuclear Winter” was different. It not only provided a pithy alternative term for a complex scientific theory, but also offered up a new image of apocalypse, one in which humanity is destroyed by coldness and darkness, not heat or nuclear blast. Indeed, “nuclear” and “winter” seemed an unlikely pairing—the two terms had never before been joined. Turco had created a “catachresis” or “the use of

329 “TTAPS” is the acronym representing the scientists responsible for creating nuclear winter: Richard Turco, Brian Toon, Thomas Ackerman, James Pollack, and Sagan. Interview with Richard Turco, February 2, 2011.
a word in some new sense in order to remedy a gap in the vocabulary; the putting of new senses into old words.” Sagan immediately recognized the power of Turco’s term—it was certainly catchier than the original TTAPS report title: “The Global Environmental Consequences of Nuclear War.” Nuclear winter was a concept ripe for Second Cold War popular consumption; as one Sagan biographer later noted, the phrase nuclear winter “did a lot to sell a highly complex idea.”

Planning a Media Blitz

With a two-word catchphrase to market a complex scientific hypothesis in hand, Sagan now set about to publicize nuclear winter to a broad audience of non-specialists. In time, critics would point to these efforts as indicators that nuclear winter was bad science, but Sagan was hardly the first scientist to court media attention. Government agencies such as NASA, independent scientists, and private research and development corporations all publicize and even inflate the importance of their findings. For scientists, favorable press leads to more funding. Medical institutions, for example, regularly tout new discoveries for curing cancers or neurological diseases, or sensationalize their findings even when data remains unsubstantiated. One famous example of publicizing unsubstantiated data occurred in 1989 when two scientists from the University of Utah claimed to have discovered a method of “Cold Fusion,” or a way to create clean, renewable energy. These inflated claims earned scientists short-term funding windfalls, but in the long run hurt their credibility. Historian of science Dorothy Nelkin has characterized this practice as the “est” phenomenon: Selling “the fastest or the slowest,

hottest or the coldest, the biggest or the smallest…the newest thing in the world.”
Nuclear winter falls into this “est” category. Sagan sought publicity by predicting the
deadliest scenario imaginable: human extinction. Despite the criticisms that plagued
nuclear winter as scientific alarmism, Sagan was hardly the first scientist to chase public
support in American mass media.331

To optimize nuclear winter publicity, Sagan contacted the public relations firm
Porter and Novelli Associates. Porter Novelli had a long history of working with
government agencies, NGOs, and non-profits to create media campaigns. According to
the firm’s chairman, Jack Porter, Sagan began planning the media blitz immediately after
the initial nuclear winter conference, which took place in April of 1983 in Cambridge,
Massachusetts. “We felt from the beginning that we had an important story,” remembers
Porter. “If we concentrated our efforts on the 25 or 30 major media and we defined those
as the network news shows, the morning shows, some specific discussion shows like
Donohue and Nightline…,” then nuclear winter could reach a national audience. Yet
despite his frequent appearances on the popular program, Sagan decided not to publicize
nuclear winter on Johnny Carson’s Tonight Show; he believed that the “subject matter
didn’t lend itself to that” type of medium. Still, Sagan pursued other “high-visibility
media” including “metropolitan newspapers, the wire services [and] of course, news
magazines.” In other words, Porter Novelli and Sagan sought to persuade not a handful of
scientific experts, but millions of Americans.332

331 Dorothy Nelkin, Selling Science: How the Press Covers Science and Technology (New York:

of the National Association of Science Writers, 34:2, April 1984, 7.
Funding for this media blitz came largely from Robert Allen of the Kendall Foundation. According to Jack Porter, the initial publicity budget was roughly $40,000, but “as we got into it, we were called upon to do a lot of other things” with final costs somewhere “in the $100,000 range.” How did this amount compare to other notable scientific endeavors? The National Aeronautics and Space Agency (NASA) routinely spent much more on publicity than the amount Sagan used for nuclear winter, but received comparatively little criticism. Even by the late 1990s NASA still routinely allotted $100,000 for publicity campaigns. In short Porter Novelli’s funding of a private scientific media campaign was considerable. These funds went to three priorities: organizing and publicizing the October 30, 1983, Washington, D.C., conference; hiring artists and composers to create animations and paintings depicting nuclear winter; and establishing a high-tech satellite linkup with Soviet scientists, the so-called “Moscow Link.” Richard Turco remembers Sagan’s role in planning the event. “This whole event of ‘the cold and the dark’ [i.e. the conference] was designed to roll out this whole theory. It was a remarkable thing.”

Visualizing Nuclear Winter

Sagan oversaw the creation of numerous media aids to transform sterile science into dark and dreary imagery for public consumption. So did Porter Novelli, the firm that created the food pyramid diagram which adorned high school classrooms from the early 1980s until 2011. Both Sagan and his public relations firm knew how images could entice and persuade audiences. Symbols that could capture the imagination were essential. As a

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boy, Sagan became fascinated with planetary science through the stories and images of early Cold War science fiction. He utilized artistic imagery to popularize space science on his hugely popular PBS series *Cosmos*. If Sagan was going to sell nuclear winter to non-scientists, he needed to present more than hard data, charts, and graphs; he needed powerful and persuasive imagery that allowed average Americans to envision a cold and dark post-war environment. To represent nuclear winter artistically, Porter Novelli commissioned a nearby art firm, Wood Ronsaville Harlin, to create images for the conference and subsequent media presentations.

Agent Pamela Ronsaville remembers working on the nuclear winter project. While her firm “had done other jobs for Porter Novelli,” the organization had never worked on any project with such serious overtones. Artist Rob Wood was responsible for creating the conference’s images. A trained landscape painter, Wood recalls that when Porter Novelli contracted his firm in 1983 he “never really did anything that involved before. When they told me what I had to do [with nuclear winter], I knew it was going to be a big deal.” Stanford biologist Paul Ehrlich became Wood’s primary contact for the project. The artist remembers that Ehrlich was “pretty specific in what he wanted. [He] would give us written descriptions [such as] show what it would be like if the crops were dying; show a granary in which people steal food; people salvaging [sic] for food, and then the cold, the extreme cold.” In other words, Ehrlich instructed Wood to transform sterile scientific predictions into emotionally moving pictures.\(^{334}\)

Both Wood and Ronsaville did extensive research, studying photographs of natural disasters to produce authentic paintings. Wood’s goal was “make the earth after a

\(^{334}\) Interview with Rob Wood and Pamela Ronsaville, January 21, 2011.
nuclear winter to really strike home...about how horrible [nuclear winter] could be.”

Pamela Ronsaville presented Wood’s images in Washington, D.C., for Sagan and Ehrlich. “I gave a sales pitch. There were about 20 or 30 men sitting around a conference table. Sagan was there.” Wood’s images proved sufficiently dreary; Sagan picked them to be used in the upcoming conference as well as the slideshow presentations in his speaking engagements. These images were also included in the Sagan’s first nuclear winter book entitled *The Cold and the Dark*. Rob Wood recalled his decision to use before-and-after wilderness scenes; they reflect Wood’s training as a landscape artist, and convey the devastation of a nuclear winter.  

Image 15: Rob Wood, “before” nuclear winter, from *The Cold and the Dark*.

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Image 16: Rob Wood, “after” a nuclear winter, from *The Cold and the Dark*.

In these examples, the before and after images emphasize the destruction of nature; even the accompanying captions use language aimed at an audience of non-scientists: “A tranquil scene in the north woods. A beaver has just completed its dam, two black bears forage for food, a swallow-tailed butterfly flutters in the foreground, a loon swims quietly by, and a kingfisher searches for a tasty fish.” This type of nature-themed imagery and language sought an emotional response from non-specialists.336

To depict nuclear winter from space, Sagan called on longtime friend and illustrator Jon Lomberg. Sagan first worked with Lomberg in 1972 for *The Cosmic Connection*, a book examining the possibility of life on other planets. Lomberg later became the chief artist for Sagan’s *Cosmos* series. By 1983, Lomberg was Sagan’s obvious choice of artist to provide the images for nuclear winter. Lomberg believes that his images were persuasive, that they “played at least some role in stimulating the

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widespread discussion and debate that followed.” Lomberg’s paintings allowed “non-scientists [to] visualize the mechanism that would cause a nuclear winter.”

In the same way Ehrlich informed Rob Wood about what to paint, Sagan suggested ways that Lomberg could depict nuclear winter from space. “I did it all with Carl,” remembers Lomberg. “He would explain to me the science, the meaning, and the audience…in this case that was a non-technical audience.” In crafting these representations of nuclear winter from space, Lomberg recalls that NASA space photography influenced his artwork. “The images of Earth and its beauty and complexity had become iconic worldwide. The look of the earth was definitely inspired by the real earth.”

Image 17: NASA stock footage of earth from the “Global Environmental Consequences of Nuclear War” presentation.
Image 18: Jon Lomberg’s depiction of nuclear winter from the “Global Environmental Consequences of Nuclear War” presentation.

The 1968 NASA “spaceship earth” photographs informed Lomberg’s depiction of nuclear winter from space. Both of these images were included in the short film “Global Environmental Consequences of Nuclear War.” Lomberg strove for authenticity by basing his paintings on actual NASA photography. This multimedia approach appealed to Sagan, and together he and Lomberg continued to produce presentations to discredit SDI. “I worked with Carl on his anti-SDI effort, including a painting that appeared in *Parade* magazine as well as his testimony against SDI,” recalled Lomberg. “My art was supposed to show visually why offense could always overwhelm defense.”

Sagan incorporated Lomberg’s images into a number of media. They appeared in the Washington, D.C., conference slideshow presentation; adorned the cover of *Parade Magazine*; accompanied Paul Ehrlich’s nuclear winter article in the journal *Co-Evolution*.
Quarterly; and they comprised the bulk of images used in a short film Sagan showed to university students and world leaders to spread the warnings of nuclear winter. In short, Lomberg’s art was central in promoting nuclear winter. Readers of the usually lighthearted Parade Magazine – then the second most widely read weekly periodical in the United States—were alarmed at Lomberg’s depiction of a global nuclear war. Parade’s editors received over 50,000 letters from concerned Americans. One of those letters came from Fate of the Earth author Jonathan Schell, who noted that Lomberg’s representations of nuclear winter from space were “iconic,” especially the “dust shroud being pulled over the Earth like a window shade” which provided “a new and arresting image” of the atomic age.338

The images Wood and Lomberg created became the basis for a five-minute short film, “The Global Atmospheric Consequences of Nuclear War.” Lomberg produced the film, while composer Bob Derkach provided the soundtrack. Sagan and his wife Ann Druyan also aided in designing the presentation and emphasized emotional appeals over scientific data. Lomberg remembers that in 1983 the presentation consisted of a “multi-image show, which is a technique that has gone the way of the slide rule. You have banks of slide projectors and it is all programmed for the slides…they come in a certain order with a soundtrack.” Bob Derkach provided an appropriately haunting soundtrack to accompany Lomberg’s images of environmental catastrophe.339

339 Ibid.
Ann Druyan recalled her collaboration with Sagan on the media presentation:

“I remember conversations Carl and I had, about making the consequences real to the people who lived in all those cities. It required showing what would really happen. If you really want to reach people, you’ve got to move them emotionally, as well as intellectually. If you don’t raise goose bumps, you’re not doing your job.” Druyan explains the strategy of emphasizing emotional appeals with an example: “If you say a one-degree temperature drop globally, people are going to say ‘big deal,’ so we had to make it so that the real consequences were visualized.” To make those consequences real, the film included images of cold, desolate landscapes and a cloud-shrouded earth, as well as stock footage of dead deer and frozen oranges. These images aimed to bring home the horrific consequences of a cold and dark post-war environment.340


340 Interview with Ann Druyan, February 8, 2011.
As these images clicked by, Sagan’s voice relayed the dangerous possibilities of nuclear war by stressing the global climate impacts and environmental devastation:

> Life on earth is intimately connected with the environment, and fundamentally dependent on it. Animals depend on plants; plants depend on sunlight and weather; sunlight and weather are in turn determined by the nature and behavior of the atmosphere. These delicate relationships would be torn, perhaps irreparably, by the effects of a nuclear war. Even a small nuclear war would produce huge plumes of thick, sooty smoke; burning plastics and other synthetics would produce a wide variety of toxic gasses. The fires would burn for weeks. Thousands of smoke plumes carried downwind and merging with one another would blanket northern mid-latitudes within days…disturbing the climate on a global scale. For months there would be a dark, deadly nuclear winter.\(^{341}\)

Sagan would present this presentations, to students, politicians, and international leaders, as well as to millions of Americans on ABC’s *Nightline*. These examples show that to engage in his antinuclear cultural activism, Sagan relied on images and multimedia presentations. His goal was to give nuclear winter broad public appeal.\(^{342}\)

**Implementing the Nuclear Winter Media Blitz**

The nuclear winter media blitz began on October 30, 1983, with the much publicized Washington, D.C., “Halloween conference” and lasted until the November 20 showing of ABC’s film *The Day After*. As the Halloween conference approached, Porter and Novelli Associates New York office was “licking its chops…to set up interviews” with major news sources. Sagan planned interviews with the *New York Times* and *Newsweek*, and sent articles to *Science* and *Foreign Policy*. Porter Novelli sent a press release in mid-September 1983 and followed up with a more extensive release at the


\(^{342}\) Ibid.; interview with Jon Lomberg, January 18, 2011.
On October 30, 1983, Sagan’s *Parade* article introduced his vision of the nuclear apocalypse to a mass readership. Sagan’s decision to put nuclear winter in a weekly newspaper magazine before it appeared in *Science*—an official peer-reviewed publication—would haunt him for years. Still, at the time Sagan’s decision to introduce nuclear winter through *Parade* had benefits. With a guaranteed a readership of 80 million, the *Parade* article had a much larger readership than *Science* or *Foreign Affairs*. Also, Sagan’s article would appear on a Sunday, thereby preempting Monday’s scheduled media coverage of the Washington, D.C., story. The goal was to make nuclear winter a two-day story.


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Sagan hoped that nuclear winter would become at least a two-day story, but fate intervened. During the last week of October 1983, U.S. marines invaded the Caribbean island of Grenada. The invasion dominated newspaper headlines and effectively denied nuclear winter front-page coverage. Jack Porter remembers requesting headline coverage to news outlets, to which one reporter replied: “You’re talking about a scientific conference? I got dead marines here!” Grenada also prompted *Time* to postpone its coverage of Sagan’s conference by a week. Despite these setbacks, nuclear winter still received ample press coverage. On Monday, October 31, Sagan and Ehrlich appeared on the ABC *Evening News* and presented a two-minute piece describing nuclear winter.345

Sagan had a chance to gain more substantial publicity with the November 1 episode of the popular ABC news program *Nightline*. Koppel joined Sagan and Ehrlich to film the program from the Washington, D.C., conference. This on-location production had advantages. It allowed Soviet scientist Sergei Kapista to appear on American network news via the Moscow Link. Kapista was the Soviet equivalent of Sagan, a Russian science communicator and television personality. Sergei was also the son of Peter Kapista, a nuclear scientist who refused Stalin’s request to work on the hydrogen bomb. Kapista’s satellite participation through the “Moscow Link” added an element of technological spectacle to the televised event; it also emphasized superpower solidarity.

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Jack Porter remarked that Kapista and the Moscow Link were central to this “international strategy [that] targeted the key international press.” The message was clear: nuclear was important enough to transcend Cold War ideology.\(^{346}\)

Such symbols of superpower coexistence in 1983, however, were not cheap. Porter estimated that the satellite link cost an “equivalent amount” as the initial marketing funds— in other words, an additional $40,000—but for Sagan the money was well spent. This satellite hookup was part of a broader attempt to rekindle cooled superpower relations. A planetary scientist, Sagan viewed the world not as battleground for geopolitics, but an inner-connected ecosystem. The Moscow link was an important symbol of better superpower relations. Ann Druyan remembers the Moscow Link as “part of this idea…ways in which we could break down the idea of enemy camps and create an atmosphere—kind of a planetary perspective—that we’re all in this together. The “Moscow Link” was part of that.”\(^{347}\)

_Nightline_ provided Sagan with his first chance to argue with two early nuclear winter skeptics: Assistant Secretary of State Richard Burt and nuclear scientist Edward Teller. Sagan began the exchange. He suggested that nuclear winter might induce world leaders to reduce global nuclear stockpiles. Kapitsa agreed, and stressed that Soviet scientists also believed that nuclear winter was a real possibility. Ehrlich emphasized that nuclear war would lead to global ecological catastrophe. When Koppel queried Teller, the longtime nuclear proponent stressed that his institution—the Lawrence Livermore


\(^{347}\) Ibid.
National Laboratory—had performed similar studies as TTAPS but reached less
catastrophic results. Instead of nuclear winter, Teller and Burt endorsed Reagan’s SDI
program. In this way, the Nightline episode set the stage for future nuclear winter debates
that would pit Sagan’s nuclear winter against Reagan’s “Star Wars” program. The
Nightline appearance capped a busy weekend of nuclear winter propaganda. Combined,
media coverage of the Washington, D.C., conference, Sagan’s Parade article, and
Sagan’s appearance on ABC led to media fallout on nuclear winter. Time coverage added
to nuclear winter’s publicity, as did numerous op-ed pieces in the New York Times, and
Newsweek.

While Sagan publicly touted objectivity, off screen he took a more blatantly
political stance. On November 9 he met with the group “Peace Links,” an anti-nuclear
group comprised of Congressional wives. Led by Betty Bumpers, wife of Sen. Dale
Bumpers (D-AR), the group listened to Sagan’s warnings about nuclear winter. He
stressed that nuclear winter “should provoke a complete rethinking of nuclear strategy
and of disarmament talks by both sides.” Sagan’s political views, therefore, were in line
with the political left. Future critics would repeatedly attack nuclear winter as bad science
because of Sagan’s politics.

Some of those critics attacked Sagan’s submission to the journal Foreign Affairs.
In his article “Nuclear War and Climatic Catastrophe: Some Policy Implications,” Sagan

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348 Badash, A Nuclear Winter’s Tale, 101-102; portions of the Nightline transcript found in Sims to

349 Patrick Clawson, Edward N. Luttwak, Russel Seitz, “Comment and Correspondence: Nuclear
Winter,” Foreign Affairs 62, issue 4 (Spring 1984): 997-999; Jason Salzman, “Nuclear War as an

argued that nuclear winter fundamentally changed the Cold War nuclear standoff; it meant that any nation that engaged in an atomic first strike would be destroyed by the resulting dust cloud. According to Sagan, nuclear war was “tantamount to national suicide for the aggressor—even if the attacked nation” did nothing to retaliate. For Sagan, nuclear winter had rendered the Cold War arms race useless. The United States and the Soviet Union needed to begin a “massive, bilateral, verifiable decrease in the global inventory of nuclear weapons.” This buildup needed to ensure that if a nuclear war ensued, it would not trigger a nuclear winter. This nuclear winter “threshold” was not precise, but Sagan suggested a 99% reduction in global nuclear arms. His vision of a nuclear winter-driven buildup, then, remained bilateral but went beyond a freeze. Sagan did not call for complete nuclear abolition, but a “safe” level of nuclear arsenals.351

As Sagan discovered, numerous pundits and policymakers disagreed. Critics wasted little time in revealing numerous flaws in Sagan’s vision for global nuclear buildup. In Foreign Affairs’ next issue, numerous letters attacked Sagan’s proposals for a bilateral buildup. Strategic theorist Edward Luttwak accused Sagan of manipulating scientific data to reach his conclusions. Another critic believed that nuclear winter’s threat of global annihilation actually enhanced “self-deterrence,” thereby making the nuclear standoff more stable. Russell Seitz—then a director of technology assessment at a Boston banking firm and a figure who would continue to attack nuclear winter in the years to come—criticized the TTAPS report for inaccurate estimates on smoke

production and the limitations of Sagan’s one-dimensional computer model.\(^{352}\) In a later *Foreign Affairs* article entitled “Nuclear Winter Reappraised,” Starley Thompson and Stephen H. Schneider argued that “on scientific grounds [nuclear winter holds] a vanishingly low level of probability.” Despite these authors’ lack of expertise in atmospheric science, these articles undermined Sagan in the eyes of *Foreign Affairs*’s readers. These letters suggested that nuclear winter was more of a politically charged idea than scientific theory. Recognizing his inability to sway policy pundits, Sagan continued to promote nuclear winter, but he shifted his focus back to popular media.\(^{353}\)

Sagan returned to television for the roundtable discussion that immediately followed the November 20, 1983 airing of ABC *The Day After*. By November of 1983, *Viewpoint* host Ted Koppel and Sagan had established a friendship. Sagan had become Koppel’s “go-to guy” for all issues scientific. The two frequently dined together and discussed politics, leading to Sagan’s numerous appearances on *Nightline*.\(^{354}\) On November 20th, Sagan appeared in front of an estimated 100 million viewers in one of the most curious nuclear-themed media events of the Cold War. The ABC special *Viewpoint* would draw in an estimated two-thirds of *The Day After*’s audience, or roughly sixty-million viewers. It was a critical opportunity for Sagan; he could now elaborate on

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\(^{354}\) For an extended analysis of the Reagan administration’s attempts to battle antinuclear activism sparked by *The Day After*, see chapter four; in an overall impressive work, George C. Herring makes one minor error and incorrectly states that ABC aired *The Day After* on November 11, not November 20; George C. Herring, *From Colony to Superpower*, 861; interview with Ann Druyan, February 8, 2011.
nuclear winter to a record-setting television audience. When Koppel asked Sagan if there were any “merit in this movie or is the movie simply an exercise in emotionalism which might cause despair,” Sagan responded by not answering the question, but instead by promoting nuclear winter. He remarked:

I think that in this country we’ve been sleepwalking during the past thirty-eight years and past this problem without really coming to grips with how dire and compelling it is…I think that ABC should be congratulated for spurring what I hope will be a yearlong debate on this issue, but its my unhappy duty to point out that the reality is much worse than what has been portrayed in this movie and this new emerging reality has significant policy implications. The nuclear winter that will follow even a small nuclear war…especially if cities are targeted as they almost certainly would be involved, a pall of dust and smoke which would reduce the temperatures not just in the northern mid-latitudes but pretty much globally, to sub-freezing temperatures for months. In addition, it’s dark, the radiation from radioactivity is much more than we’ve been told before, agriculture would be wiped out, and its very clear that beyond the one or two billion people who’d be killed directly in a major nuclear war five, seven, thousand megatons, something like that, the overall consequences would be much more dire, and the biologists who’ve been studying this believe that there is a real possibility of the extinction of the human species from such a war.

Koppel interjected: “I’m going to stop you at this point because if our viewers were not depressed enough after seeing the movie I suspect you’ve brought them to an even greater nadir.” Koppel’s remarks are revealing; they explain the difficulty that nuclear winter, with its depressing imagery, had in maintaining television media coverage in the months to follow.

When Sagan suggested that nuclear winter might have policy implications, Buckley interjected: “I think that what [Sagan] said is very good news. If the Soviet

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355 The November 20 Viewpoint episode provided one of the most diverse and frank televised discussions of nuclear weapons, strategy, and science of the entire Cold War. See Chapter four.

356 Ibid.
Union knows that any first strike will mean the extinction of the Soviet Union then there won’t be a first strike.” Sagan replied, “I agree with that. I’m amazed to find myself agreeing with Mr. Buckley but that is absolutely right.” Sagan’s aside that he was “amazed” to be agreeing with Buckley was likely due to more than political differences. According to Ann Druyan, before the Viewpoint taping Buckley accosted Sagan and Wiesel and asked if he had stumbled upon a meeting of “holocaust survivors.” Sagan, also of Jewish descent, was understandably appalled; Druyan remembers that Buckley was “clearly drunk.” On television, however, Sagan remained cordial and took great care to re-emphasize the need for disarmament. He suggested that because a nuclear winter could occur with the detonation of only 1000 weapons “the only prudent policy is to get well below that threshold so that no concatenation of computer failure and communications malfunction and madness in high office could kill everybody on the planet.” If not, argued Sagan, you have a “circumstance in which you can end the human endeavor.” When it came to Reagan’s arms buildup, Sagan concluded that “we are going in the wrong direction.”

Sagan used nuclear winter to criticize Reagan’s SDI program as well. He questioned Shultz’s estimation that the White House was reducing the number of global nuclear weapons. Instead, Sagan suggested that “what the administration is really doing—according to the congressional budget office—is increasing the inventory of strategic warheads from 9000 in the United States to 14,000.” Sagan later responded to an audience question regarding the plausibility of the nuclear freeze movement and

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suggested that the freeze was “a good first step,” and then summarized the global nuclear situation with an analogy: “A room, awash in gasoline, and there are two implacable enemies in that room. One of them has 9000 matches; the other has 7000 matches. Both are concerned about who is stronger. Well that is the kind of situation that we are actually in…What is necessary is to reduce the matches and to clean up the gasoline.” He concluded that “I think that can be done, we can get out of this trap that we and the Soviets have jointly set for ourselves and for our civilization and our species but the way to cut nuclear weapons is to cut nuclear weapons.”

The Viewpoint roundtable marked the last time that Sagan and nuclear winter would be on the offensive. Nuclear winter held limited media attention in the months and years to follow, but never like it had during Sagan’s media blitz in the autumn of 1983. Later television exposure was limited. Sagan called upon his friend, the media mogul Ted Turner, for more prime time exposure, and after 1983 Turner became Sagan’s greatest ally in getting nuclear winter on television. In 1984, Sagan appeared on Turner’s Cable News Network (CNN) to argue that nuclear winter should convince the superpowers to disarm. In January 1985 Turner Broadcasting Station (TBS) aired On the Eighth Day, a BBC-produced one-hour documentary explaining the dangers of nuclear winter. After the program, Sagan appeared alongside Soviet scientist Georgi A. Arbatov, former head of the National Security Agency Noel Gayler, and Reverend Theodore M. Hesburgh to endorse disarmament. TBS would replay this documentary numerous times throughout the week. Turner also brought the BBC film Threads to American television. Essentially a more graphic and pedantic version of the ABC film The Day After, Threads depicted a

358 Ibid.
nuclear war in England that ultimately leads to a breakdown of global society. The film is interspersed with teletype-style cut screens explaining the causes of death and devastation—including nuclear winter. Immediately following his television appearance after *Threads*, Sagan joined an all-night protest of the nuclear arms race in Lafayette Park in Washington, D.C. Sagan was one of the most vigorous and energetic antinuclear cultural activists of the Second Cold War.\(^{359}\)

In the wake of Sagan’s nuclear winter media blitz, criticisms of the theory came from seemingly everywhere. In the scientific community, critiques appeared in *Science* and *Environment*. Criticisms in these journals, however, adhered to a normal peer review process; these were minor critiques and alterations, all part of the peer-review process. When it came to non-scientific publications, however, these attacks became less rational and more vitriolic. Many conservative publications, such as the *Wall Street Journal* and Irving Kristol’s *National Interest* printed anti-nuclear winter op-ed pieces that simultaneously supported the Reagan’s SDI program. Often these critics went after Sagan’s methods to popularize nuclear winter. Appearing on national television, critics argued that Sagan had disguised his own personal politics as science. For his efforts to warn Americans about nuclear winter, Sagan was accused of being a leftist activist waving the flag of scientific objectivity to push his own political agenda.\(^{360}\)

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Conservative Backlash and the Merchants of Doubt

Two conservatives—Russell Seitz and S. Fred Singer—attacked nuclear winter and Sagan more vehemently than any other critics. Two recent historians have dubbed Singer and Russell Seitz’s older cousin, Frederick Seitz, as Merchants of Doubt, or the men who aided the tobacco industry in the 1960s and 1970s. By the 1990s these men had become the leading skeptics of global warming debates. In the 1980s, however, Singer and Seitz focused their energies on two projects: supporting Reagan’s SDI program and discrediting Sagan’s nuclear winter hypothesis. Who were these “merchants of doubt,” and what compelled them to attack Sagan? According to historians Naomi Oreskes and Erik Conway, Singer and Seitz led a small coterie of conservative scientists who, driven by their anticommunism and disdain for liberal politics, led campaigns that questioned the carcinogenic effects of tobacco, supported Reagan’s SDI program, and criticized global warming science. Funded by big tobacco and fossil fuel corporations, these merchants of doubt came to dominate contemporary political debates. In the 1980s, the nuclear winter debates proved to be a pivotal stepping stone for these future naysayers of global warming.361

S. Fred Singer was a professor of environmental sciences at George Washington University. Unlike many of his colleagues, Singer was a political conservative. In the early 1980s, he aided Reagan’s National Science Advisor George “Jay” Keyworth. Singer had the scientific expertise to challenge nuclear winter on technical grounds, and

he did so in peer-reviewed journals including *Science* and *Nature*. Singer’s typed reports to Keyworth combined scientific scrutiny with politically based attacks on Sagan’s motives. Singer even proposed his own counter hypothesis, a “nuclear summer,” in which atmospheric particulates litter the atmosphere, trap radiant heat, and actually warm the globe. Singer’s goal was not to prove the validity of a “nuclear summer,” but to show that through manipulation of data scientists could come to conflicting conclusions in lockstep with their own personal political convictions.362

Even though some of Singer’s letters were rejected by peer-reviewed journals like *Science*, his commentaries gained traction within the White House. Singer argued that nuclear winter was simply a pseudoscientific extension of the nuclear freeze movement—as evidenced by Sagan’s meetings with liberals such as the pro-freeze Senator Edward Kennedy. Keyworth logged many of Singer’s memoranda, including a report entitled “Nuclear Winter on *The Day After*?” In the memo, Singer asserted that nuclear winter was unlikely and that the atmosphere had the ability to clean itself of radioactive particulates. The memo circulated through a White House hostile to Sagan and his theory. Secretary of Defense Caspar Weinberger’s own memo on nuclear winter was so hostile that Keyworth believed it was “mostly mush.”363 Outside the White House, Singer’s nuclear winter critiques adorned the pages of conservative publications. The *Wall Street Journal* published Singer’s attack on Sagan and his inability to provide any “calculations


whatsoever.” Sagan’s rebuttals offered numerous calculations, but these corrections fell on deaf ears. The damage had been done. Ignoring his own politics, Singer painted Sagan as a biased scientist. In scientific journals, such *ad hominen* arguments would never had been published; yet the *Wall Street Journal* happily reprinted such personal attacks.364

In addition to Singer, the other “merchant of doubt,” Frederic Seitz, remained mostly mum about nuclear winter, but his cousin Russell Seitz became Sagan’s most relentless critic. Both Seitzs were staunch conservatives. The elder Frederic Seitz studied solid-state physics at Princeton University. During World War II he worked on government defense projects: tweaking ballistic missile designs, consulting for the DuPont Corporation, and writing an influential textbook entitled *The Modern Theory of Solids*. Later, Seitz became a NATO science advisor, president of the National Academy of Sciences, and a member of President Nixon’s Science Advisory Committee. With his conservative politics and disdain for his liberal colleagues, Seitz found a home in the tobacco lobby in 1979. In the 1980s Seitz shifted focus away from the tobacco industry and towards efforts to support Reagan’s SDI program, a move that brought him into contact with other conservative scientists, including Edward Teller. This connection to Teller would help Seitz enlist the help of his cousin, Russell Seitz, to attack Sagan’s nuclear winter article in *Foreign Affairs*.365

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Nuclear winter scientists knew of Frederick Seitz, but few had heard of his cousin Russell. TTAPS member Brian Toon recalled: “Russell Seitz wrote this article. The byline says he is a Harvard professor, that Harvard is his affiliation. We never heard of Russell Seitz. I had no idea who Russell Seitz was.” Seitz was not a tenured professor at Harvard, but a visiting scholar at Harvard’s business school. Toon discovered that Seitz “attended MIT for a year [and] was a co-author on a paper with somebody who was putting diamond windows on a laser [but otherwise] he had no scientific credentials.” Seitz had been a visiting scholar for the Center for International Affairs and had previously worked with the John M. Olin Institute for Strategic Studies, a conservative think tank.\footnote{Despite published criticisms from Richard Turco, Seitz did have an affiliation with Harvard in the mid 1980s; credentials are examined in Brian Martin, “Nuclear Winter: Science and Politics” in Science and Public Policy, Vol. 15, No. 5 (October 1988): 321-334.} He was not an atmospheric scientist, yet the American Security Council Foundation (ASCF)—a pro-SDI non-government organization based in Cambridge—used Seitz’s writings to support the Reagan administration initiatives and discredit nuclear winter. For the ASCF, data from non-experts that endorsed SDI proved more appealing than hard science discrediting the program.\footnote{Oreskes and Conway, Merchants of Doubt, 25-27; Brian Toon, interview with the author, January 25, 2011.} In 1984 Seitz’s attack on nuclear winter in Foreign Affairs—which suggested that the TTAPS computer models were biased—prompted a response from Sagan which revealed that Seitz had simply borrowed data from a Lawrence Livermore Laboratory report. Seitz, therefore, was not providing
any original scientific counterarguments; instead, Seitz attacked Sagan, his politics, and his methods to popularize nuclear winter.\textsuperscript{368}

Seitz influenced another unknown “expert” who would critique nuclear winter in *National Review*: Brad Sparks. Sparks was not an atmospheric scientist, but the director of the Political Freedom Fund in Berkeley, California. Sparks’s criticisms so closely resembled Russell Seitz’s attacks on nuclear winter as to suggest collaboration. Sparks noted that no nuclear winter occurred in the aftermath of Hiroshima or Nagasaki and that studies of these bombings never suggested nuclear winter-type effects. To support his claims, Sparks cited Russell Seitz, “an MIT-trained physicist.” Both men criticized Sagan’s “extraordinary publicity campaign,” proof that Sagan was “artfully constructing the appearance of a consensus” to sell nuclear winter.\textsuperscript{369}

The conservative journal *National Interest* became another early bullhorn for Seitz. His article “In from the Cold: ‘Nuclear Winter’ Melts Down” attacked the TTAPS predictions and criticized Sagan’s methods to popularize nuclear winter in American mass media. He singled out the Union of Concerned Scientists and Physicians for Social Responsibility for their role in funding Sagan’s campaign. *Nature* editor John Maddox lobbied similar critiques, stating that it was “unfortunate when…a purportedly scientific publication is so fully amplified by popular articles” such as *Parade*. Howard Macabee, a past president of Doctors for Disaster Preparedness, called Sagan’s “sequence of events—a publicity campaign paid for and launched before the publication and

\textsuperscript{368} Carl Sagan, “Comment and Correspondence” in *Foreign Affairs* Spring84, Vol. 62, Issue 4, 995-1002.

circulation of a scientific study—very unusual [and] destructive of the goals of honest inquiry.” For critics, Sagan’s media campaign resembled science “disguised [for] political purposes.”

Russell Seitz may have lacked the expertise to provide his own scientific critique of nuclear winter, but when possible he cited scientific experts, such as physicist Freeman Dyson. Dyson had addressed issues of nuclear war in his book *Weapons and Hope*, and obviously shared Sagan’s antinuclear politics, but he remained skeptical about nuclear winter. For Dyson, nuclear winter was “an absolutely atrocious piece of science, but I quite despair of setting the public record straight.” Dyson’s remarks alarmed the TTAPS group. Critiques from the unknown Seitz were one thing, but remarks from Dyson—a respected scientist—confused Sagan. Brian Toon was confused as to why Dyson supported Russell Seitz, especially because Dyson “had no idea who [Seitz] really was, had no basis for supporting him; Seitz just sounded like he knew a lot.” Sagan contacted Dyson and asked why his remarks adorned the *National Review*. Dyson replied, “I don’t know anything about [nuclear winter]; I never read your paper and know nothing about the problem…it just didn’t sound right.”

Any nuclear winter critic who appeared in the *Wall Street Journal, National Review*, or *National Interest* interested the Reagan administration. Soon, Singer was advising Keyworth on the nuclear winter issue. The abundance of anti-nuclear winter

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370 The “one-hundred percent certainty” rule was used by Sagan in critiquing SDI, Seitz and others in attacking nuclear winter, and it remains a common theme in global warming debates. Scientists and historians of science maintain that nothing in science is one-hundred percent verifiable. See Badash, *A Nuclear Winter’s Tale*, epilogue; Brian Toon, interview with the author, January 25, 2011; Oreskes and Conway, *Merchants of Doubt*, 25-27.

371 Brian Toon, interview with the author, January 25, 2011.
archival materials suggested that Keyworth put more faith in Singer’s assessments than the peer-reviewed articles from Science or Nature.\(^\text{372}\) Seitz’s original draft of his National Review article for the American Security Council Foundation (ASCF) made its way into the NSC files. The article was entitled “The Apocryphal Apocalypse: ‘Nuclear Winter’, Environmental Surrealism and Video Gamesmanship”—an ironic title considering that “Video Gamesmanship” might have been a more appropriate title for Reagan’s Strategic Defense Initiative, a missile defense program that greatly resembled the 1980 midway classic coin-op Missle Command. Regardless, for officials at the NSC, Seitz’s assessment provided an “expert” counterpoint to the Sagan-led, peer-reviewed Science article on nuclear winter.\(^\text{373}\)

Seitz seventy-nine page essay is painful to read. It attacks nuclear winter as nothing more than the “intersection of science (computer simulations), myth…and popular culture (The Fate of the Earth)” used to construct “cultural artifacts…the object of which is to convince people” of nuclear winter. Sagan was simply capitalizing on the “economic success of Armageddon-mongering television Evangelists [and] if an attention-getting appeal to the imminent end of the world attracts both funds and converts to media-wise fundamentalist ministries, why should a pious secular humanist like Dr.

\(^{372}\) S. Fred Singer added a note requesting a personal meeting with Keyworth on “this nuclear winter business ASAP.” Memo, S. Fred Singer to George Keyworth, August 20, 1984, “Nuclear Winter Meeting – Erice, Italy,” which included Singer’s “Letter to the Editor” of Science from January 12, 1984, as well as Singer’s report entitled “Nuclear Winter On The Day After” from November 25, 1983; folder “Nuclear Winter,” file 4 of 4, George Keyworth Files, Ronald Reagan Library.

Sagan be denied his share of the take?"³⁷⁴ For Seitz, nuclear winter was nothing more than the “confection of media events on or beyond the leading edges of scientific progress.” Seitz makes no mention of Sagan’s submission to peer-reviewed scientific journals, and instead accuses the Cornell professor of simply contacting “some childhood friends and political acquaintances, and arranging a gala convocation of octogenarian but spry Nobel Laureates,” thereby creating a consensus by which any “scientific impresario can, through the magic of television, conjure up a concrete image in the public’s mind of something truly incredible but yet unfalsifiable [sic].” Seitz suggested that “if a team of computer programmers and a stable of animators are placed at my disposal, I can give, even-handedly, to advocates and opponents of any controversial subject, environmental, scientific, technical, or \textit{strategic}, a vivid description of anything their hearts desire.”³⁷⁵

For Seitz, Sagan’s use of illustrators was proof of political motives. “To make a stunning impression on the public by showing them a color animation of the ice caps melting in the withering heat of the Nuclear Summer, with the rising sea inundating Washington and Leningrad alike as crops perish in a global drought requires only two things: an utter disregard for science and a few hundred thousand dollars to foot the bill.” Seitz interviewed the two artists of this chapter—Jon Lomberg and Robert Wood—and relayed that both men admitted to “exaggerating the effects” of nuclear winter. In a more recent interview, Robert Wood defended his artistic exaggerations as necessary to make the effects of nuclear winter “more visible.” Wood admits to having moderate politics—he referred to his nuclear winter paintings as strictly “contract work”—but by 1983 it was

³⁷⁵ Ibid.
impossible to ignore Reagan’s arms buildup. “Everybody felt like it was pretty helpless; there was such an arms race, it was a hopeless situation, so no one had ever thought of the ramifications…nobody knew about nuclear winter. I was glad to be a part of it.” For Seitz, it was “hard to imagine a more explicit declaration of political intent” than Sagan’s use of artists or nuclear winter “having been launched in the media.”

Seitz concludes by venturing into the realm of conspiracy theory. He suggests that numerous scientists conspired to create nuclear winter for the express purpose of ending the arms race. For Sagan and company to achieve this goal, it was “necessary to transcend the limitations of scientific objectivity and conjure up a new vision of the apocalypse in the popular imagination, [one] so horrifying that a concerted media campaign would…induce in the body politic a convulsive rejection of the arsenals of thermonuclear destruction, and precipitate a wholesale reduction in strategic arms by…90 percent.” Sagan had used a public relations firm for just this goal, proof that nuclear winter was not science, but “a tale of foundation networking and high stakes grantsmanship [sic]” that began “at the Audubon Society” and ended “with a cashier’s check for $80,000 being given to a public relations firm.”

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376 Interviews conducted for this dissertation suggest that Seitz: took these artists’ quotations out of context; ignored the reality that such artistic choices were not without precedent; and were reported with little care to detail. Seitz consistently spells Jon Lomberg’s name incorrectly as “John Lonberg.” Artists had long represented earth from space in the years before NASA’s 1968 “spaceship earth” photographs, such as Chesley Bonestell; see Chapter 7; see also Ron Miller and Frederick C. Durant III, _The Art of Chesley Bonestell_ (London: Paper Tiger, 2001); Seitz, “Apocryphal Apocalypse,” Ronald Reagan Library.


378 Years later, Ann Druyan reputed Setiz’s attack. “The work Carl did for nuclear winter was all done without a PR person. People accused him of having some sort of huge PR machine that was generating all this stuff, but it was just us. [Porter Novelli] was only for a specific event, the TTAPS symposium. No one was on retainer, ever.” Interview with Ann Druyan, February 8, 2011; Seitz was also incorrect about the funding amount, estimated by Jack Porter to be around $100,000. See H. Lewis, 7; Seitz, “Apocryphal Apocalypse,” Ronald Reagan Library.
Seitz’s essay could not be further from a credible scientific paper. He makes little effort to hide his hatred for Sagan; he cites a select few dissenting scientists as proof of Sagan’s hoodwinking; he includes only eleven citations in the entire paper; his epigrams include lines from Faustus and an “anonymous computer jockey;” he misspells names; he refers to the TTAPS report as “Grade B science fiction;” and his conclusion is a short story about Soviet scientists named “Boris Vladimirovitch” and “Nikolai Anexandrovitch” which includes a reference to the video game Pac-Man. Why did the NSC maintain non-scientific reports from Seitz, Singer and Sparks that discredited nuclear winter? Likely, because they needed any support they could get. The White House recognized that Sagan was having considerable success outside of the United States in convincing world leaders that nuclear winter was a real possibility. Despite the public posture that nuclear winter was not a major obstacle to the president’s foreign policy, the NSC was working to contain Sagan’s nuclear winter campaign.\(^{379}\)

**Sagan and the National Security Council**

Between this initial nuclear winter media blitz and the conservative backlash from Seitz and Singer, Sagan remained busy; so did his TTAPS collaborators. Richard Turco remembers that responding to conservative critics was akin to a full time job. He remembers Sparks and Seitz as “cranks, I mean really cranks.”\(^{380}\) Sagan crafted his responses on the road; after *Viewpoint* Sagan had embarked on a university speaking tour which featured Lomberg’s multimedia presentation. Sagan also courted celebrity


\(^{380}\) Sparks later refers to Seitz as being at Harvard. Sparks, “The Scandal of Nuclear Winter,” 28-38; Turco, interview with the author, February 2, 2011.
endorsements, even once presenting the film at “a gathering of Hollywood liberals” at the home of actress Blythe Danner and producer Bruce Paltrow—Lomberg recalls that a young Gwyneth Paltrow helped him set up the projector. The approach worked. Sagan’s nuclear winter media presentation won over numerous celebrities. Paul Newman “wanted to nominate [the film] for a special Oscar.” The film also earned Lomberg some critical acclaim; in 1985 it received First Prize at Vermont World Peace Film Festival. Lomberg remains proud of his participation in making nuclear winter accessible for non-experts: “I believe the images played an important role in the strategic policy debates of the end of the Cold War, and I am very proud to have worked on these images with Sagan.”

The nuclear winter film became a centerpiece of Sagan’s efforts to persuade political leaders around the globe. Sagan presented the “The Global Environmental Consequences of Nuclear War” at the “U.S. Congress and Canadian Parliament, at the Supreme Soviet in Moscow, at West Point, Annapolis, and Colorado Springs.” Many world leaders were receptive to the presentation. Sagan, an atheist, even met with Pope John Paul II to discuss nuclear winter. Sagan’s greatest success in shaping foreign policy, however, came during a visit to New Zealand. In 1984, Sagan showed the film to Prime Minister David Lange, and according to Ann Druyan it made a powerful impact on Lange. The Prime Minister decided to ban all nuclear-powered ships from his country’s ports. This policy certainly had deeper roots than nuclear winter; Australia and New Zealand had long histories of antinuclear opinion. Still, Lange viewed nuclear winter as further proof that any superpower nuclear exchange would doom his country. The Prime Minister “explicitly showed…the [film’s] images” to members of Parliament “as part of

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381 Jon Lomberg, E-mail to the author, December 28, 2010.
his rationale for denying U.S. warships carrying nukes permission to harbor in his

country.”382 On September 24, 1984, Lange made clear his belief in nuclear winter to the

United Nations General Assembly. He explained that:

Within the last year...reputable scientists from east and west have told us

that the global, climatic and long-term biological consequences of a

nuclear war would be much more severe than had been previously

thought. What is more, that would be the case if even a relatively small

part of the existing nuclear arsenals were used. The scientists have also
told us that nuclear war in the north may generate a nuclear winter in the

south. They have gone further and advised us that there is a possibility of

the self-inflicted extinction of the human species.

Lange concluded by explaining that in the wake of nuclear winter findings, New Zealand,

Australia, and eleven other countries in the south Pacific joined in a “nuclear free zone”

which effectively halted access for any nuclear-powered ships or planes in many south

Pacific ports and airfields. Such remarks were controversial during the Second Cold War,

and excerpts of Lange’s statement aired on National Public Radio’s program All Things

Considered.383

Bolstered by his recent successes, Sagan returned to television to discuss nuclear

winter on the popular Sunday CBS news show Face the Nation. Joined by Senator

William Proxmire (D-WI), former Secretary of Defense James R. Schlesinger, and

National Academy of Science member George Carrier, Sagan again spread televised

warnings of nuclear winter. Moderator Fred Graham—substituting that week for host

Leslie Stahl—asked whether or not U.S. nuclear policy should “be changed in light of the

prospects of a lethal nuclear winter.” Sagan agreed that it should, and specifically the

382 Interview with Ann Druyan, February 8, 2011; Interview with Jon Lomberg, January 18, 2011.

U.S. should begin an arms reduction. Senator Proxmire concurred. “The changes for policy seem to be to me crystal clear, and...we should emphasize arms control...to prevent nuclear war.” This *Face the Nation* endorsement showed that Sagan’s efforts to court politicians were paying dividends. Proxmire’s public support for nuclear winter showed that Sagan was not only influencing international leaders, but now established D.C. politicos.\(^{384}\)

NSC officials grew wary of Sagan’s success. In addition to the sympathetic Congressional representatives on the hill, they worried that New Zealand’s revitalized antinuclear posture would spread to other nations, and even potentially damage U.S. relations within NATO. In 1985, such fears were warranted. European antinuclear protests ran strong in the wake of the deployment of U.S. Euromissiles. If New Zealand, Australia, and eleven other nations in the Pacific could close their ports, nuclear fears within Europe might lead to similar diplomatic problems. The NSC decided that it was time to discredit nuclear winter, and Sagan, publicly. A memorandum to John M. Fisher suggested that the NSC “proceed posthaste to poll the nation’s atmospheric scientists, most of whom have already caught on to the gap between the [nuclear winter] model and the real world, and publicize their consensus as vigorously as Sagan’s sponsors launched his campaign last year.” They suggested bringing Sagan to “the Hill for further testimony under oath” which could provide the NSC with their “first opportunity for an adversary peer review process since the beginning of this imbroglio. Sagan has much to answer for; his evasion, stonewalling and dissimulation cannot stand a hard cross-examination.” This

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cross-examination was scheduled for December 11 at a press conference on the nuclear winter report. The NSC suggested deploying “as many of the skeptics…as we can” to disprove nuclear winter.385

Russell Seitz was a likely candidate, and with new NSC efforts to refute Sagan Seitz’s presence in the NSC files grew. Seitz was now the ASCF’s “director of technology assessment,” a title connoting a full-time position in which he could continuously discredit Sagan and the TTAPS predictions. Seitz’s latest report looked conspicuously more scientific: it even included graphs and charts, and there was no mention of Pac-Man. Still, Seitz continued his same line of attack: that Sagan had sounded a false alarm, an “atmosphere very unlike the alien creation of the Nuclear Winter model’s worst case [scenario].” It took Seitz only three pages to discredit the years of calculations provided by TTAPS and their “assumptions about getting soot off the ground [and] launched into global distribution.” His report included critiques of Sagan’s use of a “P-R Firm” and Sagan’s selling of “The Cold and the Dark in the marketplace.” Even if Seitz was now including facts, figures, and data resembling scientific calculations, this concluding salvo revealed his continued penchant for personal attacks.386

S. Fred Singer joined in the critiques held in NSC files, this time critiquing Sagan and attacking David Lange himself. Singer argued that the Prime Minister’s decision to


halt U.S. naval ships was “wrong on at least three reasons.” First, nuclear-powered vessels were not nuclear bombs; second, nuclear winter lacked the credibility that Lange upheld; and third, the PM’s decision was in violation of the “traditional right of innocent passage.” Singer concluded by stating that “freedom of the seas is a fragile concept that needs to be constantly nurtured and protected.” It was an odd combination of criticisms: Seitz, the former strategic affairs “expert” had attacked Sagan on ostensibly scientific grounds; now Singer, the scientific “expert,” was arguing for the merits of maritime freedom. While such criticisms might only make it into the pages of staunchly conservative publications, by 1985 these two “merchants of doom” continued to have the ear of Reagan’s National Science Advisor and the NSC. \(^{387}\)

**Conclusion**

Sagan’s nuclear winter campaign did not burn out so much as it faded away. Certainly, Sagan’s extensive efforts to popularize the nuclear winter scenario reached millions of Americans as well as the highest level of the U.S. Government. In 1984, Reagan even remarked that nuclear war might just “end up in no victory for anyone because we would wipe out the earth as we know it.” Reagan even cited the 1816 Tambora volcanic explosion and its global environmental consequences, pondering that if “one volcano can do that, what are we talking about with the whole nuclear exchange, the nuclear winter that the scientists have been talking about.” Apparently, Sagan’s message was reaching the highest levels, but as other historians have argued, the Reagan administration deftly appropriated nuclear winter to endorse their program for missile

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defense. By Reagan’s rationale, SDI might prevent a nuclear winter from occurring.

“If you have a defensive weapon…those missiles aren’t going to reach their target.” Yet, more than administration efforts diminished nuclear winter’s relevance. By 1986, superpower tensions had diminished considerably thanks to the improved communications between Reagan and Soviet Premier Mikhail Gorbachev. Sagan debated Edward Teller in front of Congress and pushed for increased nuclear winter research funding—and even had limited success—but after 1986 the American media had largely lost interest in this apocalyptic hypothesis.388

As the Cold War ended, even Sagan’s interest in promoting nuclear winter eroded. In 1990, he and Richard Turco co-authored *A Path Where No Man Thought: Nuclear Winter and the End of the Arms Race*, a 467-page compendium of all research and criticisms of nuclear winter up until that point. In 1991, Sagan reappeared on Ted Koppel’s *Nightline* where he predicted that the Gulf War oil fires would cause a small-scale nuclear winter in the Middle East. His predictions were wrong; the oil fires caused only minor and temporary temperature drops. Sagan returned to writing, but after long bouts with illness died in 1996. In the weeks and months after Sagan’s untimely death, newspapers and newscasts across the country said farewell to the popular scientist. Most neglected to mention his nuclear winter campaign, but not Russell Seitz. In *Forbes Magazine*, Seitz used Sagan’s obituary as one last opportunity to attack nuclear winter as

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scientific alarmism. As millions mourned the loss of the world’s best known scientist, Seitz’s critiques lacked both relevance and class.\footnote{Russell Seitz, “An Incomplete Obituary,” \textit{Forbes} 159, Issue 3 (February 10, 1997): 123.}

As of 2011, historians have viewed Sagan’s nuclear winter campaign as a largely ineffectual attempt to alter the course of the arms race. Lawrence Badash concluded that the Reagan administration appropriated nuclear winter to endorse SDI. Paul Rubinson, assesses nuclear winter as a scientific attempt to shape Cold War politics and concludes that more than the science of nuclear winter, the theory’s political implications hindered its widespread acceptance. Sagan’s biographers see nuclear winter as an escapade that blemished an otherwise glowing career. These arguments all have merit, but largely these scholars have focused on the scientific debates regarding nuclear winter—or, the contestations between scientists and critics in peer-reviewed scientific journals, at academic conferences, or in the halls of Congress. Sagan’s antinuclear cultural activism was not ineffectual; in fact, it alarmed the White House and the NSC. Sagan’s use of American mass media was a critical decision that popularized nuclear winter, but also one that opened him to criticisms from conservative commentators. Sagan’s use of a public relations firm, his oversight of the creation of media aids, and his extensive involvement in a televised media campaign allowed non-scientists to attack Sagan’s credibility. By transcending scientific circles and entering American popular culture, Sagan was simply doing what made him famous in the first place: translating complicated science into accessible images and messages for public consumption. Yet this move also opened him to so many personal criticisms that Sagan was constantly on the defensive.
Sagan’s nuclear winter campaign is important for another reason: it was an early example of methods by which the critics of global warming—who include Russell Seitz and S. Fred Singer—attacked broad scientific consensus. Even today these same “merchants of doubt” continue to conjure up myths of scientific conspiracies to shape global politics. The 2010 “climategate” story, for example, revealed that some global warming scientists’ e-mails went against consensus thereby supposedly revealing a mass conspiracy. While these scientists were later vindicated, subsequent news stories received far less attention than the original accusations. The damage had already been done. Despite numerous works tracing the considerable research done on climate change, such accusations continue to make headlines—much as they had in the 1980s—in conservative-leaning publications.390

Sagan’s nuclear winter media campaign swayed a numerous politicians and world leaders. The “Nuclear Winter: Changing Our Way of Thinking” presentation helped to convince New Zealand Prime Minister David Lange to block U.S. naval vessels from using South Pacific ports. Sagan’s meeting with Pope John Paul II was also auspicious. It allowed the outspoken atheist to convince the world’s leading Catholic that nuclear winter and human extinction were real possibilities. Additionally, interviews suggest that nuclear winter swayed the Soviets far more than any American policymaker. According to Ann Druyan, distinguished Cosmonaut Alexei Layanoff believed that Sagan’s remarks to Soviet leaders left an impression, especially on Mikhail Gorbachev. Layanoff recalled

that after “Carl left the room—giving the nuclear winter story to Gorbachev and the central committee—they looked at each other and said ‘well it’s over, isn’t it?’” In Druyan’s assessment, “What [Sagan] did that day changed the entire course of the [Soviet] perspective of the arms race.” The story is anecdotal, but based on Gorbachev’s efforts to reduce the Soviet expenditures on the nuclear arms race, it may have merit.  

Sagan’s efforts to publicize nuclear winter sparked the ire of conservative critics who, put simply, were out of their scientific league. What critics like Seitz and Singer discovered, however, was that discrediting Sagan and nuclear winter was not a matter of intellectual acumen, but of engaging in smear attacks through partisan publications. The American public did little to distinguish between the scientific expertise of the TTAPS group and the so-called expertise of Seitz and Singer. In the end, such distinctions made little difference. By traversing the fields of academic science, foreign affairs, and U.S. popular culture, Sagan did spread warnings of nuclear winter, but in the process allowed non-experts to provide a voice of dissent that likely would have gone unheeded in peer-reviewed publications. With his nuclear winter campaign, Sagan had made a devil’s bargain: publicity for credibility. Today’s global warming scientists engage in similar attempts to balance scientific credibility and media publicity, and continue to experience a critical backlash from the same “merchants of doubt” who Sagan knew all too well.

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CHAPTER 9: CONCLUSION

“Peace Sells...But Who’s Buying?”

- Megadeth, 1986

In his 1985 work *By the Bomb’s Early Light: American Thought and Culture at the Dawn of the Atomic Age*, historian Paul Boyer pondered the sudden return of intense atomic anxiety during the Reagan Era. When Boyer began research for *By the Bomb’s Early Light* in 1981, he largely encountered “profound public apathy towards the threat of nuclear war.” After Reagan assumed the presidency, however, this “climate changed,” and “the stage was already set for a return to the oldest item on the agenda: the threat of nuclear war.” The combination of Reagan’s “bellicose rhetoric, his vast military buildup, his elaborate and heavily publicized civil-defense programs, his proposals to push the nuclear arms race into space, and the barely concealed contempt of powerful administration figures for the whole concept of arms control” led to a renewal of “antinuclear activism and revived cultural awareness.”

This dissertation has examined how activists capitalized on 1980s “revived cultural awareness” to challenge Reagan’s arms buildup. Numerous books, films, popular songs, television ads, network news programs, and music videos conveyed more than ominous nuclear war imagery; these were expressions of cultural protest. During the Second Cold War, antinuclear culture became a medium for activism. Instead of direct appeals to Congress or the White House, those in arts and sciences utilized cultural media to spread disarmament messages to an unprecedented number of Americans. These cultural activists had clear political motives. They endorsed disarmament and sought to

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sway public support away from the Reagan administration and towards the burgeoning antinuclear movement. In response, the White House attacked antinuclear cultural activists with a vengeance. It countered antinuclear literature—such as Jonathan Schell’s *Fate of the Earth*—with its own pro-peace publication. Critics who attacked SDI—or who supported it too fervently—were given the administration’s cold shoulder. When administration officials learned that ABC’s *The Day After* insinuated that the United States instigated a nuclear war, they denied filmmaker Nicholas Meyer access to film locations and demanded script changes at ABC. In each case, the White House coordinated massive public relations campaigns to discredit antinuclear activism. In short, archival research shows that the White House took antinuclear cultural activism seriously.

Antinuclear cultural activism permeated numerous media. In print media, politically minded publishers pushed antinuclear nonfiction. Jonathan Schell’s *Fate of the Earth*, Ground Zero’s *Nuclear War* and the Kennedy and Hatfield publication *Freeze!*, helped to popularize the nuclear freeze movement. These books acted both as propaganda and as organizational tools for a burgeoning, nationwide antinuclear movement. Publishers and authors provided the first real mass media challenge to Reagan’s hard-line stance. In response, the White House shifted from public pronouncements about winning a nuclear war to more conciliatory rhetoric. They published *In Search of Peace: American Initiatives, 1946-1982*, to promote a history of arms control treaties, thereby insinuating the White House’s new, peaceful posture. This publication suggests that the Reagan administration recognized the appeal that antinuclear literature had in the early 1980s and sought to sell their own vision of peaceful diplomacy to Americans.
Print media provided the first, but hardly the only cultural reminder that nuclear war was a serious threat during the 1980s. Children’s literature like Dr. Seuss’s *Butter Battle Book*, pro and SDI commercials on network television, and films such as *The Day After, Threads*, and *Testament* all acted as reminders of the era’s increased atomic anxiety. Yet examples of nuclear-war laden imagery of 1980s popular culture came from Europe as well. Popular music from Great Britain expressed British wariness and concern over the American Euromissiles in their country. Through a new medium, the music video, they created songs and images highly critical of the arms race and President Reagan. Using MTV as a cultural conduit, they exported antinuclear messages into millions of American homes. Britons’ outrage over the Euromissiles and concerns are recorded in their pop music, a significant contribution to 1980s antinuclear atomic culture.

The Reagan Era prompted new and innovative concepts that complicated conceptions of nuclear war and Cold War strategy. Reagan’s Strategic Defense Initiative was the most important of these innovations. Reagan’s dream of a “peace shield” prompted Daniel Graham’s High Frontier organization and the Union of Concerned Scientists to battle over popular conceptions of SDI in American mass media. These groups produced such extreme and opposing visions of SDI that the White House had to rein in its promises. By 1986, the SDIO had to pursue a more moderate publicity campaign. When it came to SDI, cultural activism—both in the form of pro-SDI arguments and anti-SDI criticisms—shaped the course of official government propaganda.
In the wake of Reagan’s SDI announcement, ABC produced an antinuclear film that became a landmark event. *The Day After* sparked a media frenzy that prompted the most diverse and frank discussion of arms control in American television history. Anticipating record ratings, the White House worked frantically to coordinate yet another nationwide publicity campaign to contain the damaging criticisms of Nicholas Meyers’s film. Reagan’s diary suggests that he found it disturbing and powerful. The White House also took *The Day After* seriously, so seriously that Vice President Bush, Secretary of State Shultz, Secretary of Defense Weinberger, National Science Adviser Keyworth, and a host of other top-ranking officials released public statements defending the administration. Their concern was warranted. *The Day After*’s message alarmed millions of distraught viewers. To combat Meyers’s two-hour “public service announcement,” the White House coordinated a nationwide media campaign, including radio interviews, newspaper op-ed pieces, televised specials, and press releases. The film provided the administration with an unparalleled opportunity to tout their new dictum: that a “nuclear war cannot be won and must never be fought.” After their extensive public relations campaign, this White House slogan proved to be more appealing than Meyer’s vision of nuclear apocalypse.

Carl Sagan’s nuclear winter hypothesis presented the White House with yet another serious challenge. Sagan went beyond traditional methods of scientific review and introduced another new vision of Cold War apocalypse to the American public. By spreading warnings of nuclear winter in popular magazines and on American television, Sagan capitalized on his popularity in ways no other scientist could. In the process of transcending scientific circles, however, Sagan opened himself—and his theory—to
criticisms from non-scientists in popular publications. These conservative critics put Sagan constantly on the defensive, continually discredited nuclear winter, and attacked Sagan himself. Sagan’s efforts to popularize nuclear winter show—like other examples from this dissertation—that 1980s mass media was a contested space in which antinuclear activists and pro-Reagan advocates battled for public support. The character of these debates remains today. Two of Sagan’s most vocal critics, Russell Seitz and S. Fred Singer, continue to criticize global warming, while Sagan’s collaborators Paul Ehrlich and O. Brian Toon continue to endorse global climate change. In a sense, the nuclear winter campaign was trial run for environmental climate debates to come.\footnote{TTAPS contributor Brian Toon believes that “there were a whole bunch of people commenting on [nuclear winter], their knowledge of it was minimal. And you see the same thing going on now with global warming.” Ann Druyan believes that Sagan’s methods to make “the consequences [of nuclear winter] real” was a strategy that “has been duplicated many times since by An Inconvenient Truth and others.” Ann Druyan, interview with the author, February 8, 2010; Brian Toon, interview with the author, January 25, 2011; Oreskes and Conway, Merchants of Doubt, 65.}

In waging their media wars, antinuclear cultural activists shaped the course of Reagan administration public relations campaigns. Faced with the onslaught of critical messages, the White House crafted its own public relations campaigns that aimed to contain antinuclear culture’s critical messages. Archival documents show that by 1982, the Reagan Administration could no longer ignore antinuclear culture. The White House singled out antinuclear literature as a threat. They attacked the critical messages contained in paperbacks, nuclear war films, television ads, and scientific multimedia presentations. They also began to espouse the rhetoric of peace themselves. Were these pronouncements genuine? In 1982, likely not; the White House’s public assurances that they would consider freeze proposals amounted to nothing more than “propaganda.” By 1983, however, the White House could not ignore the reality that antinuclear cultural
activists’ message of peace appealed to Americans. To maintain support for their arms buildup, and their president, the administration had to contain antinuclear literature’s criticisms while assuming its peaceful motives. Seen in this light, 1980s antinuclear cultural activism achieved some success. While 1980s atomic pop culture may have failed to significantly alter American’s perspectives on the arms race, it contributed to the shift in White House rhetoric. Prolonged and coordinated White House efforts to re-brand Reagan not as a warmonger, but a peacekeeper, stuck. Antinuclear cultural activists had forced the White House to deflect criticisms, but also to rethink its message. These cultural activists were not ineffectual in shaping arms control debates; in fact, their criticisms shaped the course of Second Cold War arms race debates. In 1983, the trajectory of administration rhetoric went from prevailing in a nuclear war to preventing one, and this rhetoric of peace continued until the end of the Cold War.

That trajectory towards superpower peace was not evident at the outset of the Reagan presidency. A growing number of works distort this reality and paint an inaccurate portrait of the Reagan Era. Historians are correct is noting that the Reagan Administration vigorously pursued strategies of containment similar to the early Cold War Presidents, especially Harry Truman. Reagan wanted to return to policies of the early Cold War. During the early 1980s, the United States redoubled its covert military operations against communism; provided military aid to anticommmunist forces in Afghanistan and Central America; escalated its anti-Soviet espionage efforts; and undertook the largest military peacetime buildup in American history. Despite these early policies, by the mid-1980s Reagan decided to negotiate with the Soviet Union from a position of military strength. In hindsight, many conservative commentators applaud
these actions; at the time, however, many conservatives balked at Reagan’s growing political relationship with Soviet Premier Mikhail Gorbachev.\(^{394}\)

Whether or not Reagan’s actions amounted to a rebellion against his conservative supporters or a pursuit of pragmatic diplomacy, these efforts improved diplomatic relations and paid real dividends. After two highly publicized but largely unsuccessful superpower summits, in 1987 Reagan and Gorbachev finally agreed on an arms reduction treaty, the Intermediate Range Forces (INF) treaty, which removed the threat of IRBMs from the European theater. Global nuclear fear abated. Gorbachev would continue his efforts at Soviet reforms throughout the 1980s. In 1989, the Berlin Wall would tumble, and Reagan’s successor, George H.W. Bush, witnessed the disillusion of the Soviet Union. In a startling, surprising, and unexpected turn of events, the Cold War had ended.\(^{395}\)

In grappling with this unexpected Cold War finale, many historians either glorify or vilify Reagan, and in the process they misrepresent an important era in contemporary American history. Reagan’s presidency was not without setbacks. An early assassination attempt, a recalcitrant economic recession, a rise in urban poverty, and declining superpower relations riddled Reagan’s first term. In his second term, the administration’s imbroglio in trading arms for hostages to illegally fund Central American anticommunist forces—the Iran-Contra Affair—tarnished Reagan’s reputation. With the end of the Cold War, most scholars, and many Americans, have forgiven or forgotten these

\(^{394}\) Reagan’s “rebellion” against his anticommunist cabinet members is the focus of James Mann’s *The Rebellion of Ronald Reagan* (New York: Viking Press, 2009).

\(^{395}\) On the importance of Reagan’s working relationship with Gorbachev, see Melvyn P. Leffler, *For the Soul of Mankind: The United States, The Soviet Union, and the Cold War* (New York: Hill and Wang, 2007), 338-450.
transgressions—just as most would rather forget that the threat of nuclear war was real. This selective amnesia has contributed to Reagan’s stature as the “Teflon President,” a 1980s designation that would remain intact after he left office. With the onset of Alzheimer’s disease, many viewed Reagan as a sympathetic and even heroic figure.

The history of 1980s nuclear fear—best expressed through antinuclear culture—complicates this simplistic recollection Reagan’s legacy. Fortunately, a few fair and balanced diplomatic historians are now beginning to put the nuclear fear back into narratives of 1980s foreign policy. In his recent overview of U.S. foreign relations From Colony to Superpower, George C. Herring assesses Reagan’s first term as a period when “the Cold War re-escalated to a level of tension not equaled since the Cuban missile crisis.” Herring is correct, but 1980s nuclear fear still remains underrepresented in Reagan Era historiography. Future scholars seeking a more complete assessment of the Second Cold War would do well to include heightened levels of American atomic anxiety. Reagan faced numerous challenges, yet the first great challenge to Reagan’s foreign policy came from antinuclear activists. Not only did 1980s antinuclear cultural activism leave behind a historical record of American atomic anxiety, it also seriously challenged the Reagan administration’s arms buildup. These activists spread the message of peace to the masses. Peace proved to be a popular message, and by 1984 Ronald Reagan sold this vision of how the Second Cold War could end as his own. The White House had won these media battles, but the antinuclear message prevailed throughout the rest of the Cold War.396

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