As a public service,

THE LAUCKS FOUNDATION

from time to time calls attention to published material that might contribute toward clarification or understanding of issues affecting world peace. The accompanying reprints constitute Reprint Mailing No. 69.

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"To revive his sense of mission, the president has got to tell the country what this defense buildup has been for—to enable us to parley, or to fight?

"Right now, his defense secretary seems to want neither to fight nor to negotiate, and his secretary of state wants to do both."

—Quoted from "How Reagan Can Triumph Over His Lame Duck Status" by Morton M. Kondracke, The Wall Street Journal. Dec. 20, 1984, p.23.

(Reprinted by permission of The Manchester Guardian Weekly)

MANCHESTER GUARDIAN WEEKLY, January 20, 1985

The long negotiating trek from Geneva

ENOUGH material has now been put on the table for discussion between the superpowers to occupy a new Ph.D., fresh from Berkeley, for the best part of his career. After several years' negotiation the first Salt (Strategic Arms Limitation) Treaty was agreed in 1972 and two attempts since then (Salt II and Start) to improve on it have either fallen at a final hurdle or been abandoned on the way. In addition to strategic arms, the negotiators have now to consider the intermediate weapons in Europe and the beginnings of an arms race in space. Messrs Shultz and Gromyko were not being unduly cautious when they gave warning of the immensity of the job they have agreed to tackle; but they have agreed. And that, after the dangerous stand-off which occupied almost all of 1984, is enough for the present.

One matter for early study will now be the degree of linkage between arms control and the general state of Soviet-US relations. Mr Gromyko tried to establish a close linkage, and it is true that the period of growing estrangement has been the period during which the arms race appeared to be seriously speeding up. Not all of the estrangement could be attributed to President Reagan's West Coast fundamentalism: there was the little matter of the invasion of Afghanistan and the "geopolitical realities" in which the rulers of Poland have found themselves immured. Nothing in the new Geneva agreement debars either side from pursuing policies abroad which the other will strongly oppose; but the chances of progress will obviously depend heavily on restraint. The Soviet Union has perhaps then decided to observe a period of detente in international affairs provided that the Americans do the same.

The status of the Strategic Defence Initiative and the Anti-satellite Programme is left unmentioned except in that Mr Shultz has agreed that the prevention of an arms race in space should be one of the aims. There are only two ways in which that can be done. One is for the Americans to abandon the SDI before it becomes operational (a moment far enough away to allow many years of talks); the other is for the Soviet Union to allow such deep cuts in its missile armoury that the US no longer sees SDI as necessary. Since it is hard, at the outset, to have much confidence in either event there is a lot of negotiating open on this point alone. Intermediate weapons in Europe will, in parallel talks, reopen the argument about British and French nuclear systems.

The suspicion grows, therefore, that unless the talks are interrupted in their very early stages they will last until long after the present political leaders in the countries concerned have left the scene. At best we could now be starting a Geneva decade in which new weapons developments become sub judice. If that were to appear likely, then Britain could make a substantial contribution by announcing its private moratorium on the Trident programme. The superpowers have set themselves no less a target than the elimination of nuclear weapons in their entirety. There must be some intial scepticism about so large an ambition when they now have 50,000 apiece, but it should not deter the minor nuclear powers from demonstrating by practical means their wish to see it achieved.

THE WASHINGTON POST, SUNDAY, AUGUST 12, 1984

Arms Control and Small Nations

Facing destruction, too, they have a right to be heard

(Reprinted by permission of the authors)

By John Marks and David Landau

ALTHOUGH THE Soviet Union and the United States do not see eye to eye on questions of nuclear disarmament, they tend to agree on one thing: the issue involves *their* national security and nobody else's. Now six prominent leaders of countries that do not possess these weapons have staked out the claim of non-nuclear nations for a say in arms control.

"The people we represent are no less threatened by nuclear war than the citizens of the nuclear weapons states," they asserted in a statement that received little attention from the media when it was issued in May. "It is primarily the responsibility of the nuclear weapons states to prevent a nuclear catastrophe, but this problem is too important to be left to those states alone."

The six leaders — Argentina's Raul Alfonsin, Greece's Andreas Papandreou, India's Indira Ghandi, Mexico's Miguel de la Madrid, Sweden's Olaf Palme, and Tanzania's Julius Nyerere — made an extraordinary appeal for superpower action to break the nuclear deadlock. Their statement called for a halt to all testing, production, and deployment of nuclear arms "as a necessary first step."

Representing five continents, the signatories are people of great political and cultural diversity. They are much more than simple petitioners; they carry a large weight of opinion and responsibility with them. The initiative was originated by Parliamentarians for World Order, whose members are some 600 legislators in 33 countries.

They contend that the superpowers simply are not dealing with security questions in ways that make the rest of the world feel safe. While the superpowers may not be listening, initiatives from non-nuclear powers testify to the fear and frustration that is felt so widely.

Their message is clear: the nuclear crisis is global, and demands global resolution. It does not call for unilateral disarmament or capitulation. But it does present the superpowers with the imperative to move beyond narrow, nationalistic viewpoints and cooperate with smaller countries in building a common security system.

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The six-nation appeal could be an important advance in human history if it somehow persuades the nuclear powers to end their paralysis in negotiations. Given the fact that the superpowers do not usually welcome advice from smaller countries on how to handle their affairs, the responses from Washington and Moscow were not unreceptive.

The State Department said that it "respects the sincerity of purpose and commitment to peace" of the six leaders. The Soviet news agency TASS reported that Moscow is "prepared to cooperate in this matter with all who want to promote a genuine reduction of tensions" — a possible signal of willingness to entertain third party initiatives in the absence of superpower discussions.

> **"The superpowers are not dealing with security questions in ways that make the rest of the world feel safe."**

Why should third parties not put forward specific initiatives, as well as general statements of concern? The control of nuclear weapons is hardly the exclusive concern of the United States and the U.S.S.R. It is plainly a matter of *common* security rather than anyone's national security alone.

This is such an obvious fact that it is all too often forgotten. The unfortunate reality of the nuclear age is that the modern nation-state no longer can guarantee security. No nation can defend itself against destruction. The button that determines whether its people live or die is located in some other country.

As things now stand, both superpowers tend to place responsibility for the nuclear impasse on the other. But the non-nuclear nations have a different perspective. They have as much to lose from a nuclear war as the superpowers. Even if their territories were not destroyed by direct hits (as would almost certainly happen in Central Europe), a nuclear war would probably make the entire planet unlivable. At the very least, the economies of all countries would shrivel after the destruction of the industrial world, and political systems as we know them would probably dissolve.

Although the non-nuclear countries have failed to solve many of their own problems, they are not mired in static positions and ideologies where the arms race is concerned. Most importantly, they do not have domestic constituencies with powerful vested interests in maintaining the nuclear balance at its present precarious level. They are open to new possibilities and creative approaches in a way that the superpowers are not.

Last fall, Canadian Prime Minister Pierre Trudeau launched a major effort to get beyond the stalemate. He proposed, among other things, that the nuclear nations come together at the summit and talk with each other within the framework of "10 points of common ground." The points include recognition that nuclear war is unwinnable, unacceptable and preventable, and that the nuclear powers must acknowledge each other's legitimate security interests.

This latter acknowledgment is often missing at high levels of the U.S. government — and presumably in similar Soviet circles. At a recent private meeting at a Washington institute, a senior U.S. arms control official was asked if the Soviet Union felt that its security was threatened by the United States. He answered that Soviet concerns about an alleged U.S. threat had no validity beyond propaganda.

All of Trudeau's 10 points are rooted in common sense. They recognize that in the nuclear era, *everyone* is in the same boat. Unfortunately, arguments over SS-20s and Pershing missiles tend to get bogged down in technical details and simply ignore the threat that ordinary people can relate to.

While the nuclear giants are generally condescending toward small-power meddling, their genuine acceptance of principles such as Trudeau's could, in fact, create the climate in which fruitful negotiations could begin.

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When President Harry Truman announced that America would seek to build an H-bomb, could he have decided otherwise?

THE QUEST FOR THE SUPER BOMB

BY BARTON J. BERNSTEIN

On January 31, 1950, after weeks of heated public speculation and secret administration discussions, President Harry S. Truman announced that America would seek to build an H-bomb. Most citizens, including congressmen, welcomed Truman's decision, but some scientists and a few government officials rued it. According to these dissenters, Truman had surrendered a militarily safe opportunity to renounce the H-bomb, perhaps secure forbearance from the Soviet Union, and possibly gain international control of atomic energy.

Why did Truman make this decision? Did a demanding military, powerful congressmen, and some enterprising scientists force him to act? Had he struggled to avoid the commitment? Did he miss an opportunity to slow and possibly halt the nuclear arms race?

On September 23, 1949, Americans received the frightening news that the Soviets had exploded an atomic bomb. U.S. policymakers were shocked that the American nuclear monopoly had ended so soon and alarmed about another Communist triumph so quickly after Mao's victory in China. "The Russian bomb has changed the situation drastically," David Lilienthal, chairman of the Atomic Energy Commission (AEC), confided to his diary. "[Official announcements] about our having anticipated everything and following the same program we had before [are] bunk."

The Soviet A-bomb triggered an intense debate—at first secret, then public—about America's pursuit of the even more deadly H-bomb. Early vigorous advocates of an

accelerated quest for the H-bomb were Admiral Lewis Strauss, wealthy financier and conservative Republican on the AEC; Sen. Brien McMahon, Democratic chairman of the Joint Congressional Committee on Atomic Energy; and Edward Teller, the Hungarian emigré physicist (now at the Hoover Institution) who had been plumping for the bomb since 1942.

The H-bomb project had received little attention in the early postwar years before the Soviet explosion. Though both the AEC and its scientific advisers, the General Advisory Committee (GAC), had long unanimously endorsed the quest for the H-bomb, Truman had not even remembered in September 1949 that the project existed. Shortages of resources and skilled personnel, emphasis on improving fission (rather than developing fusion) weapons, and doubts about feasibility—all had coalesced subtly to slow the project. Before the Soviet explosion, Teller had despaired of pushing the AEC into an energetic effort to try to build this new weapon, and it appeared that the feasibility of the weapon, given the slow pace of the project, would not even be known until the mid or late fifties.

Alarmed by the Soviet atomic breakthrough, Strauss quickly concluded that America should move to an "all-out" effort—modeled on the wartime Manhattan Project—to create the H-bomb, or Super, as it was sometimes called. On October 5, 1949, he informed his fellow commissioners of the need "for a quantum jump in our planning . . . an intensive effort to get ahead with the super." Such a weapon, promising virtually unlimited power, was essential to America, he urged.

Strauss did not expect to persuade most of his fellow AEC commissioners to accelerate the top-secret H-bomb project. But he knew that he had allies elsewhere: Teller; probably Nobelist Ernest O. Lawrence and his Berkeley group of physicists and chemists; some scientists at the Los Alamos weapons laboratory; and Sen. McMahon and his associates on the Joint Committee. Strauss, a skilled Washington operator, deftly campaigned for the Super.

He was aided by the crusading of physicists Teller, Lawrence, Luis Alvarez, and their Berkeley group. Lawrence and Alvarez, visiting Washington in early October, pushed for a speeded-up Super project with Sen. McMahon, who was enthusiastic, and with some of the Joint Chiefs of Staff, who also liked the proposal.

AEC Chairman David Lilienthal, though he had long supported the slow pursuit of the Super, was appalled by such enthusiasm for so powerful a weapon. Lawrence and Alvarez were "drooling over the H-bomb," Lilienthal complained in his diary. "Is this all we have to offer?" he ruefully asked.

Lilienthal himself was in anguish. When he left the directorship of the TVA and took the position as AEC chairman in 1946, he had expected, naively, that he could devote substantial efforts to peaceful applications of the atom. Instead, he found himself presiding over a weapons-making establishment. By 1949, he hoped desperately for some path out of the nuclear arms race and regretted the growing American reliance on nuclear weapons both as a deterrent to war and a guarantor of victory. He was torn between his hopes for peace and his obligations to improve nuclear weapons. "More and better bombs," he lamented in his diary. "Where this will lead . . . is difficult to see. We keep saying, 'We have no other course'; what we should say is, 'We are not bright enough to see any other course.'"

Unable to carve a path out of the nuclear arms race, Lilienthal did not want, in late 1949, to add to America's moral burden and to world danger by actively seeking the H-bomb. For him, the bomb's unlimited power posed new moral and international issues and etched in bold relief the gnawing ones that he could neither resolve nor escape. He worried that the H-bomb would seem a panacea and that America would therefore neglect the conventional military forces that he deemed necessary.

J. Robert Oppenheimer, a brilliant physicist, shared many of Lilienthal's doubts and fears. Former head of the wartime Los Alamos laboratory that had created the A-bombs for Hiroshima and Nagasaki, and now chairman of the GAC, Oppenheimer never escaped from his own sense of guilt for having produced those weapons. Now, face to face with the issue of an accelerated quest for a weapon that could be a thousand times more powerful than the Hiroshima bomb, he felt compelled again to focus sharply on moral issues. These moral doubts, linked to more practical objections, helped shape his attitude toward the Super. It was, he concluded in late October, a distasteful matter—uncertain scientifically, troubling morally, dubious militarily, and certainly not the appropriate response to the Soviet bomb. Emphasis on such a powerful weapon would "even further worsen the unbalance of our present war plans."

James Conant, president of Harvard, a chemist who had helped oversee the wartime A-bomb project, and a scientific adviser to the AEC, also felt guilty about Hiroshima and Nagasaki. Like his fellow members on the AEC's General Advisory Committee, Conant had earlier endorsed the slow quest for the H-bomb. But now, faced with the proposal for a greatly accelerated program, he too sharply confronted the moral, military, and international political issues that the slower pursuit of the weapon had not seemed to raise. His new conclusion: Don't build it. "Over my dead body," he said. "The real answer [to the Soviet bomb] was," he stressed, "to do a job and revamp our whole defense establishment, put in something like Universal Military Service, [and] get Europe strong on the ground. . . ."

In mid-October, the AEC asked its General Advisory Committee—composed of prominent scientists like Enrico Fermi and administrators like Conant, and chaired by Oppenheimer—for advice on the H-bomb and the entire nuclear weapons program. On October 30, at the end of an intense three-day meeting, the eight GAC members presented their recommendations: expansion of nuclear production facilities; greater emphasis on tactical nuclear weapons; support for the "booster" (a fission-fusion weapon scheduled for testing in 1951); and opposition to a speeded-up quest for the Super.

All opposed pursuing the H-bomb "with high priority" even though there was, in their estimate, "a better than even chance of producing the weapon within five years." All hoped that the government would not even do the scientific research to determine the weapon's feasibility. Basically, they were denying the so-called scientific imperative: that scientists had a duty to learn whatever could be discovered. They argued that a higher morality (the danger of genocide) should bar the pursuit of knowledge in this case. Their counsel represented a transformation of

stated morality about the obligations of science and scientists.

"It is clear," they wrote, "that the use of this weapon would bring about the destruction of innumerable human lives; it is not a weapon which can be used exclusively for . . . military or semi-military purposes. Its use therefore carries much further than the atomic bomb itself the policy of exterminating civilian populations." Using damage area per dollar, they concluded that "it appears uncertain . . . whether the super will be cheaper or more expensive than the fission bomb." Behind these words lay an unwritten implication: The committee implied that the Super was an unnecessary economic gamble that might well siphon off scarce resources more wisely used for fission weapons.

The six-member majority (led by Oppenheimer and Conant) recommended *unconditional* renunciation of the H-bomb. For them, this powerful weapon was strategically unnecessary (because Russia had few large cities and the U.S. could use fission bombs) and immoral (because it was potentially genocidal). It would be "a threat to the future of the human race." Moreover, American development of the weapon would injure both the nation's moral credibility and its position in the Cold War race for allies and international support. Even if the Soviets developed the H-bomb, the United States would still have enough A-bombs for adequate deterrence or, if deterrence failed, retaliation. "In determining not to proceed to develop the Superbomb," the majority concluded, "we see a unique opportunity of *providing by example* some limitation on the totality of war and thus eliminating the fear and arousing the hopes of mankind" (my emphasis).

The minority (Nobel Laureates Isidor I. Rabi and Enrico Fermi) offered a more sharply worded statement of moral objections (the Super is "evil"), but ended by proposing *conditional* forbearance: Try to develop the bomb *only* if the Soviets would not renounce it.

The Rabi-Fermi argument implicitly undercut the majority conclusion (unilateral renunciation) by suggesting that under *some* conditions the H-bomb would be useful and necessary to the United States if the Soviets had it. Curiously, Rabi and Fermi never spelled out what conditions they believed would make the bomb strategically or psychologically valuable. Nor, strangely, did the majority opinion take forceful issue with the assumptions lurking in the Rabi-Fermi statement—that the bomb could be valuable.

Rabi and Fermi also suggested a tantalizing notion—an unsupervised test ban on the H-bomb. Since a workable H-bomb would require prior testing, they thought that they had devised a way to block development of the weapon. Neither great power could successfully cheat, they believed, because each side *probably* had the technology to pick up atmospheric evidence of thermonuclear testing. Unfortunately, their notion rested upon a critical "probably," and they never pushed for the plan in the next few months of secret debate. Nor did the GAC majority ever address this issue.

The GAC reports—taken individually or together—were defective. They were loosely written, failed to spell out critical implications, and did not make clear either their assumptions or the precise basis of their conclusions.

In addition, the reports left a major question unaddressed, as Sen. McMahon forcefully pointed out to Truman: Since bombing was quite inaccurate, was the greater power of the H-bomb, with its capacity to destroy a larger area, a useful or vital compensation for inaccuracy?

Beyond that, why did the GAC deem the Super immoral but the "booster" and tactical nuclear weapons moral? It was not simply a matter of power, but of a likely target—cities and civilians. The GAC was moving toward a counterforce (as opposed to a countercity) strategy in an effort to make nuclear war seem less inhumane and nuclear strategy more rational. But the argument was murky, and vulnerable.

Such criticisms of the GAC reports should not be considered an indictment, but rather a statement of shortcomings. In 1949, men who had long lived with the nuclear arms race and, in some cases, with guilt about Hiroshima and Nagasaki were being asked to examine questions that reached near the core of their assumptions, careers, and beliefs. In a rushed weekend, even when aided by some earlier private discussions, they could not establish firm leverage on these troubling matters. They faced a formidable challenge—one they could not fully meet.

Oppenheimer, hoping to carry the GAC's campaign to the White House, discussed the report first with Secretary of State Dean Acheson, a friend since their labors in 1946 on a plan for international control of atomic energy. Acheson, as Oppenheimer found, "wished he could go along with [the GAC], but didn't think he would be able to.... Acheson didn't see how the president could survive a policy of not making the H-bomb." After that painful conversation in early November, Oppenheimer concluded that the GAC position would fail. America's quest for the Super was inevitable; there was no value in seeking a meeting with the president, who probably never even saw the GAC reports.

The five AEC commissioners split on the H-bomb. Three commissioners—Lilienthal, Sumner Pike, and Henry D. Smyth—opposed the quest for the bomb. Their arguments were similar to the GAC majority's. Lilienthal, the most forceful, stressed that a decision for the bomb would impair the president's peace program, injure America's image abroad, do nothing to increase our overall strength, and promote the dangerous "misconception and illusion [that nuclear weapons are] the chief means of protecting ourselves." The Super, even if it slightly increased America's strategic power, was not necessary, he asserted. Lilienthal dimly implied that the administration should reassess its military capacity, move away from its heavy emphasis on nuclear weapons, and build up its conventional forces.

The other two commissioners—Gordon Dean, Sen. McMahon's former law partner, and Strauss—were enthusiastic supporters of the H-bomb. Strauss presented a vigorous argument for the bomb: America "must be as completely armed as any possible enemy." How, he asked, could the opponents of the H-bomb, including the GAC, support the A-bomb and not the Super? Both were terrible, both greatly expanded the damage area, and both were necessary. The GAC was, in short, morally inconsistent. Moreover, the Soviet Union ("a government of atheists") was not likely to be dissuaded on moral grounds. Strength, not forbearance, was essential to American well-being. Strauss's arguments, submitted to the president after a discussion with Sen. McMahon, buttressed the senator's own vigorous pleas to Truman for the H-bomb.

The commissioners did agree, however, on the need for public discussion. They urged Truman to lift his October "gag" order. Public discussion, they informed the president, was "inescapable, . . . necessary, and . . . desirable."

On November 18, news accidentally leaked out that the administration was secretly considering whether to seek the H-bomb. Truman promptly renewed his previous order of secrecy and thus blocked all advisers from publicly discussing the issues. To reduce political pressures and gain time for a carefully weighed decision, the president *still* wanted to avoid a public dialogue.

Truman had his own inclinations about the H-bomb project. He had already given up hope for international control of atomic energy and, like Secretary of State Acheson, did not expect improved relations with the Soviet Union. Under pressure both from Sen. McMahon and his congressional committee and from the Joint Chiefs, Truman was pushed by strong political and bureaucratic forces. Unless the Super proved to be too expensive (which was unlikely) or would seriously disrupt the A-bomb program and weaken America, Truman had no reason to resist it. And he had powerful reasons to want it. It could meet political needs at home and abroad —the creation of what Acheson called "situations of strength."

Yet, rather than make an abrupt decision, Truman appointed a three-man advisory committee: AEC Chairman David Lilienthal, who opposed the bomb; Secretary of Defense Louis Johnson, who was for it perhaps largely because his Joint Chiefs wanted it and it seemed cheap; and Secretary of State Acheson, who, like Truman, was inclined toward it. This special committee, by including key appointments from the AEC, Defense, and State, institutionalized the major bureaucratic interests. The likely results were roughly predictable: The report would favor the bomb.

The key person was Acheson, whom Truman both admired and trusted. Even when the secretary of state was embattled with the Congress and accused of "losing" China, the president was unwilling to sacrifice him to improve relations with the legislature. Mutual need and fierce loyalty bonded together the patrician Acheson and the midwestern Truman. They shared a common view of the world, and especially of the Soviet Union.

Acheson, though inclined toward the Super, would (as Truman knew) scrupulously investigate the issues and canvass the interested parties, usually probing assumptions and trying to understand positions. When Acheson spoke to Oppenheimer, whom he liked and respected, the secretary, predictably, could not accept Oppenheimer's analysis. "You know, I listened as carefully as I knew how, but I don't understand what 'Oppie' was trying to say," Acheson told an associate. "How can you persuade a paranoid adversary to disarm 'by example'?" For Acheson, the opposite analysis was compelling: Only a vigilant and better-armed America could halt communist nibbling or massive aggression and ultimately triumph in the Cold War. Military strength—not negotiation—was essential to victory.

Within the Department of State, Acheson sought competing advice from the two leading members of the Policy Planning Staff: George Kennan, the architect of containment and director of the staff; and Paul Nitze, the man scheduled to replace Kennan. Nitze, whose analysis of Soviet malevolence and American needs closely comported with Acheson's, argued that the nation must determine the feasibility of the Super: "It is essential that the U.S. not find itself in a position of technological inferiority in this field." His implication: The new weapon represented valuable additional military power and international prestige.

In contrast, Kennan hoped America would make a sincere effort at the international control of atomic energy. Despite his anguish and effort, however, he could not formulate a plan likely to be acceptable to both the Soviet Union and the United States. The basic problem, he stressed, was that the administration did not want international control, for the atomic bomb was the keystone of America's military edifice. The administration relied upon nuclear superiority to compensate for its inferiority in land forces, and believed that the A-bomb probably deterred Soviet aggression in Europe and definitely promised a speedier victory if war erupted on the Continent. The A-bomb, Kennan reluctantly acknowledged, would not be surrendered. (Acheson, deriding Kennan's hope for renunciation of the H-bomb, told him, "If that is your view of the matter, I suggest you put on a monk's robe, put a tin cup in your hand, and go on the street corner and announce 'the end of the world is now.'")

By late December 1949 or early January 1950, Acheson recognized that there was no compelling argument against seeking to determine the feasibility of the H-bomb, and many arguments in favor of the quest. The bureaucratic and political pressures were great—especially from the Joint Chiefs and the McMahon committee. Acheson did not want to face a domestic political battle on why he and Truman were leaving America strategically weak by not pushing for the bomb. Domestic political forces seemed to dictate pursuing the H-bomb. As important, Acheson's sense of America's military and diplomatic needs acknowledged the likely value of the Super. It would be militarily and politically unacceptable, as Nitze argued, for the Soviets to develop the weapon and for the United States to be without it. America's prestige might be found wanting; her military power, suspect.

For Acheson, there was no need to choose between domestic and international considerations since, in his analysis, they coalesced. Hence, he did not have to weigh them, or even to decide which were primary. Sen. McMahon, his congressional associates, and the Joint Chiefs, backed by Teller and Lawrence, pressed Acheson to take the course he would have autonomously chosen for international purposes alone—even if there had not been domestic pressures.

What arguments might have deterred Acheson from seeking the H-bomb? Not the moral argument, for while he may have been uneasy about the great power of the weapon, for him it was only an extension of the capacity of the A-bomb, which could kill 100,000 or more.

It would be unwarranted to conclude that Acheson, a skillful attorney, was cynically going through a ritual of meetings and deliberations to reach a predetermined conclusion. Rather, as he investigated the issues and tested ideas, his own earlier inclinations were reinforced. Through dialogue and analysis, he moved from inclination to commitment. His was an honest effort.

The six weeks from December 22 to January 31 were the period during which policy was explicitly formulated. Acheson, Lilienthal, and Johnson met only twice—on December 22 to explore issues and on January 31 to agree on final recommendations. At the first meeting, Lilienthal was still hopeful; by the last meeting, he knew he had been defeated. Between the two meetings, Lilienthal unhappily watched the chances for the H-bomb soar, as the Joint Chiefs and the Joint Congressional Committee added pressure and as Acheson slowly developed his own position.

By January 19, Acheson knew that the president himself was eager to approve the quest for the Super. A recent report from the Joint Chiefs had confirmed Truman's thinking, and it was in line with Acheson's own analysis. Acheson informed an associate, "I had about reached the position that we should advise the President to go ahead and find out about the feasibility [of the H-bomb]. But that we should be quite honest and say that in advising this action, we are going quite a long way

to committing ourselves to continue down that road." The commitment to produce the bomb, as Acheson recognized, would almost ineluctably follow if the weapon proved feasible.

On January 31, Acheson, Lilienthal, and Johnson met and quickly dealt with the question of feasibility. An unhappy Lilienthal had reluctantly acceded to the Acheson-Johnson majority—the H-bomb project should be accelerated. Basically, this meeting ratified decisions already reached. At the end of their session, Secretary Johnson suggested that they go to the White House that afternoon to deliver their report. Johnson, in Lilienthal's words, said "the heat was on in the Congress and every hour counted in getting this matter disposed of."

Their ten-minute session at the White House was ritualistic. They knew that Truman intended to go ahead with the H-bomb project. According to Lilienthal, Truman "said that he had always believed that we should never use these weapons and that our whole purpose was peace; that he didn't believe we would ever use them but we had to go on and make them because of the way the Russians were behaving; we had no other course."

Truman made the politically popular and bureaucratically safe decision. Both the public and Congress overwhelmingly favored the effort to seek the bomb. Congressmen cheered when they learned of his decision. For Truman, the dictates of politics, the expressed needs of the military, the wishes of Acheson, and the demands of international politics had comfortably coalesced. His own inclinations, his perception of needs, and his key adviser all pushed him in the same direction.

Had the Super threatened to cost billions, rather than another $100 million or so more, the decision might have been more difficult. But given the estimated cost, Truman could continue to aim to balance the budget and keep a tight lid on military spending while meeting what he deemed the needs of defense and his foreign policy. "We have got to have it if only for bargaining purposes with the Russians," he privately explained to advisers.

"There was actually no decision to make on the H-bomb," Truman informed his staff. He said that, in a sense, the decision had been made in the autumn after the Soviet explosion, when he decided to expand the AEC budget to help prepare the nation for deterrence or war. The cost of the H-bomb would not reach much beyond that addition. His action of January 31 followed comfortably from that earlier budgetary decision.

When Lilienthal informed the GAC of Truman's decision on the H-bomb, it "was like a funeral party—especially when I said we were all gagged [forced to keep the issues secret]." Some members asked whether they should resign. No, advised Lilienthal. "This would be very bad." None resigned or even publicly protested.

After Truman's public announcement, some prominent physicists, including Hans Bethe and Victor Weisskopf, called for renewed efforts at international nuclear disarmament. Sen. McMahon, who had ardently pressed for the H-bomb, suddenly shifted his emphasis and publicly urged a program to end the arms race and establish world peace. A few other leading Democratic congressmen offered similar notions. So great was their horror of nuclear war that these men, long accustomed to supporting large defense budgets and even calling for more nuclear weapons, were desperately struggling to find some way out of the Soviet-American impasse and the arms race. They were too locked into Cold War assumptions, the product of four years of growing international tensions, to break free. No one proposed a basic examination of the Cold War or even of the Soviet-American stalemate on international control of atomic energy. Instead, they offered exhortations and hopes.

This "peace offensive," spearheaded by Sen. McMahon, quickly gained popular support and placed the administration on the defensive. Acheson promptly lashed out. Weakness was, he asserted, an invitation to the Soviets "to fish in . . . troubled waters." Meaningful agreement with the Soviet Union was impossible. It is "our basic policy," he emphasized, to build "situations of strength"—a policy that "will require very strong nerves."

Was an opportunity missed in 1949-50 to achieve international control and end the nuclear arms race, as Kennan had hoped? What would have happened if the United States, as Oppenheimer and others urged, had renounced the H-bomb? Might the Soviets have done the same?

Sketchy evidence suggests that the Soviets were already seeking the H-bomb. But the extent of their effort and the magnitude of their commitment remain unclear. Probably the Soviets would not have believed an administration declaration that America was unilaterally or conditionally foregoing the Super unless some inspection was allowed. Nevertheless, critics may justifiably lament that America did not make some effort to slow the nuclear race by renouncing—at least temporarily—the quest for the H-bomb.

Unilateral or conditional American renunciation of the H-bomb would not have meant a serious military risk. The growing American stock of atomic bombs (then about 150) and the construction of bigger fission bombs (500 kilotons) and the "booster" could have compensated for a Soviet H-bomb, if it had been developed. And probably, as Oppenheimer then argued and physicist Herbert York, a former Teller protégé, contended in 1975, the Soviets were behind in thermonuclear research and actually speeded their own project by using information they gained from American tests in the early fifties.

It is highly unlikely that any American administration in 1949-50 would have renounced the quest for the Super. Such self-denial seemed politically and militarily risky and thus undesirable. For Truman and Acheson, the Super also promised possible benefits that they desired for America—international prestige and power.

Truman's decision of January 31 to build the H-bomb was virtually inevitable. He was not *compelled* to do so by powerful domestic political and bureaucratic forces, but he would have found these forces hard to resist if he had wished to—and he did not. Had there been no Strauss, or no Teller and Lawrence, or no McMahon, or even none of them, the process still would have operated in approximately the same way and with the same results. However, had the Joint Chiefs, like Oppenheimer and Lilienthal, opposed the Super, then Truman might have faced serious political difficulties at home, for he would have been clashing with the Chiefs in their area of expertise. But the Joint Chiefs were strongly in favor of pursuing the H-bomb.

Had Truman wanted to resist domestic bureaucratic and political pressures for the H-bomb, he might have taken

his case to the people. Public opinion was confused and he might have reshaped it to oppose the H-bomb. It would not have been an easy task in a nation where many condemned Truman and Acheson for "losing" China, and the effort might have injured him with the electorate. In late January and early February 1950, Americans overwhelmingly favored (73 to 18 percent) seeking to build the H-bomb but also slightly favored (48 to 45 percent) first trying negotiations with the Soviets for international control of atomic energy before building the H-bomb. Truman did not want to make such an effort with the Soviets, and most Americans (70 to 11 percent) believed it would fail. His policy of secrecy barred dissenting scientific advisers like Oppenheimer and Conant, who might have gained a national audience, from arguing publicly against the Super, and left some with a lingering sense that they could have persuaded the nation that an American H-bomb was unnecessary.

Ultimately, the key decision-makers on the H-bomb were Acheson and Truman, who, as with so many other issues in the Cold War, found themselves in comfortable agreement. Acheson's virtually predictable endorsement and the committee's advice shaped the way for Truman's momentous decision to seek the H-bomb.

That commitment propelled America into a new stage in the nuclear arms race, where the destruction of cities and the killing of millions would become technologically easier. Within about a half decade, both the United States and the Soviet Union would have thermonuclear weapons ready to obliterate the enemy's cities.

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"As long as states insist that they are the supreme arbiters of their destinies—that as sovereign entities their decisions are subject to no higher authority—international organizations will never be able to guarantee the maintenance of peace."

—Quoted from "The United Nations: The Tarnished Image" by Kurt Waldheim, Foreign Affairs, Fall 1984, p.93.

"War is the
principal obscenity
of the human race"

—Dean Rusk, Secretary of State 1961-69.
(As quoted in The Wall Street Journal
January 14, 1985, p.8)

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The Allure of Nuclear Testing

On 19 July 1982, at a meeting of the National Security Council, President Reagan formally decided to end U.S. participation in international efforts to ban all nuclear tests. In so doing, he eschewed a foreign policy goal of five previous administrations without immediately providing a clear explanation. News of the decision came not in a presidential statement or address but in a leak to a newspaper. Reporters were subsequently briefed by two Administration officials who insisted that their names not be disclosed. Vaguely, they indicated that talks had been halted largely out of concern that compliance with a test ban could not be adequately verified, and added that no talks would resume until the verification provisions of two existing treaties on nuclear testing, already signed by the United States and Soviet Union, could be renegotiated.

No one doubts that verification of a test ban treaty is a major Administration concern. But the primary reason for the decision to withdraw from the negotiations is clearly a powerful desire to continue testing new warheads. As the Arms Control and Disarmament Agency (ACDA) admitted to Congress in 1983, a test ban "continues to be a long-term U.S. objective, [but] nuclear tests are specifically required for the development, modernization and certification of warheads, the maintenance of stockpile reliability, and the evaluation of nuclear weapons effects."

In a recent interview with *Science*, Thomas Etzold, director of the multilateral affairs bureau of ACDA, expanded on this argument and said that a test ban has been rejected primarily because it would interfere with the development of exotic new weapons, including those needed for Reagan's recent "Star Wars" plan. He also specifically denied that the successful renegotiation of related testing treaties is a precondition for renewing talks about a comprehensive ban.

Etzold is the official with direct responsibility for the Administration's test ban policy, because ACDA fields the U.S. delegation to the Conference on Disarmament in Geneva. A former history professor at the Naval War College and Miami University, he came to the agency last May from the Center for Naval Warfare Studies, where he was involved in nuclear weapons planning and war gaming. He argues first that a potential benefit of a test ban—the barrier it might erect to the acquisition of a nuclear weapon by a Third World country—has been vastly overstated. "Frankly," he says, "it amazes me that 40 years after the first explosion, people still imagine that you need to conduct a test to have a nuclear weapon. Testing is simply not the crucial component of weapons development anymore." Treaty advocates argue, however, that if the bomb's intended use is political, not military, then a test ban might limit its attractiveness by denying the builders any chance to demonstrate their skill, short of actual combat.

Drawing a distinction between the initial development of nuclear weapons and their later refinement, Etzold argues next that testing is essential to modernization, and that a test ban is therefore not in U.S. interests. "When you think about the things that would make it possible for you to have fewer warheads and still meet your military needs under different scenarios, you think of things like . . . better control of how and where these things detonate . . . different combinations of blast and radiation effects, creating sustained instead of short-term effects, and so on. The problem we face now is that a great number of our friends as well as our adversaries would like to have a test ban of the sort that would preclude modernization. They think that qualitative improvements in weapons means that the arms race gets more acute. But they're missing a fundamental point here: that modernization is a way to get to lower numbers [of weapons] and that a reduction in numbers permits us to contemplate the transition from primary reliance on offensive weapons to primary reliance on defensive weapons." Modern warheads are generally more efficient than older designs, so fewer are needed to accomplish the desired effect, Etzold explains.

Modern warheads also generally use less fissile material, he says. "If people care about how much money gets spent on defense, they ought to care about this. If they care about how big the nuclear waste management problem is, they ought to care about this. If they are concerned about the cost of refurbishing a weapons system due to the decay of radioactive elements, they ought to care about this." In addition, he adds, modern warheads typically have lower yields, because they are more apt to hit their targets and therefore require less explosive force. Without testing, he concludes, the United States would be stuck with "large but inefficient inventories, dirty bombs, expensive warheads . . . [and] longer lasting, more widespread environmental effects in the event of nuclear employment." Treaty advocates such as Sidney Drell, codirector of Stanford's Center for International Security and Arms Control, disagrees. They argue instead that adequate safety and efficiency improvements have already been made, that the Soviets are presumably behind in warhead yield-to-weight ratios, and that a test ban could freeze in place an existing U.S. advantage.

Finally, Etzold argues that test ban verification problems are indeed serious. "There's a hell of an argument over whether or not a little bit of cheating on low yield tests is militarily significant, whether it should matter to us. My view is that it would. And we are not at a point where such a test regime could be confidently monitored." But even if the verification problems are resolved, he adds, "we still have to reach agreement on what it is we're trying to arrive at. By this I mean there's a lot of confusion over whether some total universal ban is necessary or whether you really only want to keep this down to some low yields. I think we should [only] have a regulated testing regime, because if you want to get this problem under control, if you want to seek lower and lower yields, the way you do this is not by quitting all testing."

Asked what yield would be acceptable as an upper boundary for U.S. nuclear tests, Etzold demurs. "I can't give you a number. All I can say is that there is one hell of a debate going on. I wouldn't rule out the possibility that some people think 150 kilotons is too low." One-hundred fifty kilotons is the limit presently imposed by the Threshold Test Ban Treaty, which was signed by President Ford but never submitted for Senate ratification. Despite the differences in U.S. and Soviet views on nuclear testing limitations, Etzold hopes that the United States and the Soviet Union "will be well along in the direction of an agreement" by the end of the decade.—**R.J.S.**

(R. JEFFREY SMITH)

Viewpoint

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The distinguished journalist John Newhouse offered an insightful comment in the *Washington Post* this autumn that bears repeating, especially in view of the continuing impasse between the United States and the Soviet Union. Given that the Soviets' economic system and ideology are in disrepair, Newhouse maintains, that nation's sole strength is in its dogged pursuit of more sophisticated weaponry. Whatever global prestige and power flow to the Soviets, whatever influence they can exert in world politics, derive from their nuclear arsenal. "Yet Ronald Reagan," writes Newhouse, "by shelving arms control, denies himself and the world the one tool that could limit this single Soviet success."

The point is especially well taken when one hears the occasional remark from the Administration about "bankrupting" Soviet communism by outracing it militarily. The Administration's hostility to serious arms limitation efforts is well-known. But the notion that the United States, by building every conceivable weapon—including the exorbitantly expensive "Star Wars" system—can economically break the Soviet Union is foolhardy policy, and dangerous as well. If anything, the Soviets have shown an unflinching devotion to matching America's armaments gun for gun and missile for missile. And the coercion that is the political currency of the Soviet bureaucracy makes such close military competition all the more feasible, because the USSR's resources can be readily mobilized for the invention and production of armaments.

Seen in this light, American officialdom's typical view of arms control—that it is to be, like a piece of candy, withheld from the Russians until they behave—is particularly fatuous. Balanced, verifiable arms control is a gift to *American* security first and foremost. It is, sadly, the height of irony that those in power who despise and distrust the Soviet system most are playing to that tyranny's greatest strength by denying us, and the rest of the world, the promise of nuclear arms reductions.

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