Reagan's Plan for MX Attracts Fire

Political expediency and technical miscalculation produce a dangerous plan for basing the MX in silos

In the spring of 1986, if the Reagan Administration gets its way, the U.S. Air Force will begin planting spanking new MX nuclear missiles in the Northern Plains. Between 40 and 50 MX's will be lowered into concrete-reinforced holes now housing smaller, less powerful nuclear missiles known as Minutemen. United State officials believe that, if the Soviets wanted to, they could destroy these valuable new weapons in a first strike. Thus, if any of the MX are to be fired, the United States will be the aggressor in a nuclear war and strike first, or it will fire when its computers say that a Soviet attack has just begun.

In Congress, at the Pentagon, and in the arms control community, there is broad agreement that the placement of MX missiles in vulnerable silos increases the chance that a tense international crisis could become a nuclear war. Either of the superpowers, relying on potentially erroneous warning signs or simply the expectation that attack from the other is imminent, would be tempted to hit first, to achieve the greatest advantage. As General Richard Ellis, former director of the Strategic Air Command, remarked in 1980, "The most destabilizing strategic situation that can be devised is one in which a major weapons system of a superpower could be destroyed in a surprise attack by another superpower."

This is not a new concern. For two decades, the Pentagon has been searching for a way to protect its missiles from enemy attack. In 1979, the search culminated in a proposal by the Carter Administration to build thousands of missile shelters in the southwestern United States, and to shuttle MX missiles from one shelter to another in a deliberate shell game. But last year the Reagan Administration rejected this scheme and decided to put some MX missiles in Minuteman silos. This decision has created precisely the situation that Ellis and others have warned about.

When the Soviet Union demonstrated in 1978 that it could fire huge long-range nuclear missiles with great accuracy, it was a nightmare come true for the United States. It meant that the Soviets possessed the means to threaten destruction of the U.S. land-based missiles in a preemptive attack.

The Air Force has worried about this problem for a long time, searching high and low for a better place to put both the existing, silo-based missiles and a new missile, the MX. The search has ended, under the Reagan Administration, back where it began, with a short-term plan to put more missiles into silos.

The first article in this series examined the major reasons that U.S. officials became concerned about missile vulnerability. This article examines the Reagan Administration's response to this concern, a response that is coming under increasing congressional attack. Subsequent articles will explore three potential long-term answers to missile vulnerability.

Fortunately, it will not be permanent. When Reagan made his decision, he also proposed study of three likely replacements for silo basing: a missile defense, missiles on constantly roving airplanes, and missiles buried deep underground. But none of these could be in operation before 1990, and so the risky situation will prevail for at least 4 years. Reagan need only turn to Paul Nitze, his chief negotiator in the arms control talks in Europe, for an assessment of the danger. "Deployment of a larger missile in the Minuteman silos does nothing to solve the silo vulnerability problem and in addition has the negative feature of a threatening but vulnerable U.S. first-strike counterforce capability," Nitze said in 1979, during hearings on SALT II. "Accordingly, it would increase crisis instability and the prospect that deterrence would fail."

The seeds of this predicament lie in the Reagan Administration's decision that the MX must be added immediately to the U.S. nuclear stockpile, despite the lack of a long-term basing mode—a decision that apparently owes more to political expediency than to strategic study. During the Administration's deliberations, the need for rapid MX deployment was articulated by Secretary of Defense Caspar Weinberger, who was in turn influenced by the conclusions of a special MX advisory panel that he established.*

The panel, headed by University of California physicist Charles Townes, had examined literally dozens of ideas for basing the MX, including the Carter plan to hide 200 missiles among 4600 missile shelters erected in the southwestern U.S. desert. It heard from the Navy, the Air Force, the State Department, members of the academic community, a handful of defense contractors, and some state and federal legislators. It came to the awkward conclusion that virtually every idea was flawed, because the Soviets could build warheads of sufficient power and in sufficient quantity to destroy almost any land-based target. "It is not a very difficult problem, and does not require any great expense or any different technology from what the Soviets have now," Townes explains. The panelists unanimously agreed that two ideas showed particular promise: missiles aboard airplanes and missiles buried deep underground.

Because both required further study, a short-term solution was discussed. Townes and several other panelists simply favored expansion of the bomber and submarine-based missile force. "The simple answer to the problem of [land-based missile] vulnerability is to beef up the other two legs of the strategic triad and rely on them," says Townes. But a majority of the panelists thought that

*The panel members were Worth Bagley, a retired admiral and former vice chief of naval operations; Solomon Buchsbaum, vice president of Bell Laboratories and former chairman of the Defense Science Board; Andrew Goodpaster, a retired general and former commander of Allied forces in Europe; William Nierenberg, director of the Scripps Institute of Oceanography and chairman of the JASON defense advisory group; David Packard, board chairman of Hewlett-Packard and a former deputy secretary of defense; Henry Rowen, professor of business at Stanford and former president of the RAND Corporation; Bernard Schriever, a retired general and former director of the ICBM program; Brent Scowcroft, a retired lieutenant general and former national security adviser to President Ford; Charles Townes, a Nobel laureate for his contributions to the laser; Albert Wheelon, a vice president of the Hughes Aircraft Corporation and former deputy director of the Central Intelligence Agency; and James Woolsey, a Washington attorney and former Navy under secretary.

0036-8075/82/0409-0150$01.00/0

more should be done. They recommended a variation of the Carter plan that would require fewer shelters and a form of ballistic missile defense that is now banned by a U.S.–Soviet treaty.

Even though it would share the vulnerability of all fixed targets on land, this new, smaller shelter scheme "was the quickest thing that could be done," said a panelist who backed the idea. "It would be a hedge against the failure of other, more attractive systems," said another. "It gave one the opportunity to expand it if need be. It would upset the Soviets and put the most possible pressure on them to come to the arms control table."

Townes and several others joined in opposition to the idea, and argued against it for 6 hours at one meeting. As remembered by one of Townes' allies, "supporters of the plan were concerned about Air Force morale, because the Air Force had backed the Carter approach. There was talk about reassuring European allies of our commitment to defend ourselves from land. But the idea primarily was not to let the missile itself disappear while the new basing alternatives were being examined. An interim scheme would keep the Pentagon from having to let its contractors go, reserving time for the two positive options. Finally, there was an element in the group that felt to hell with arms control, that really wanted to stick it to the Soviets."

When the panel ultimately met with Weinberger, he was persuaded that some short-term basing idea was necessary in order to keep the missile itself alive. Without any plans for the missile's use, Congress might decide to cancel or defer it. Therefore, Weinberger suggested that the MX be put aboard modified Air Force cargo planes. The Air Force and its allies on Capitol Hill lobbied against it vigorously, and it was dropped. Many top Administration officials endorsed the Townes' panel plan for building a portion of the Carter scheme. But Weinberger did not like the idea and, as it turns out, neither did Reagan.

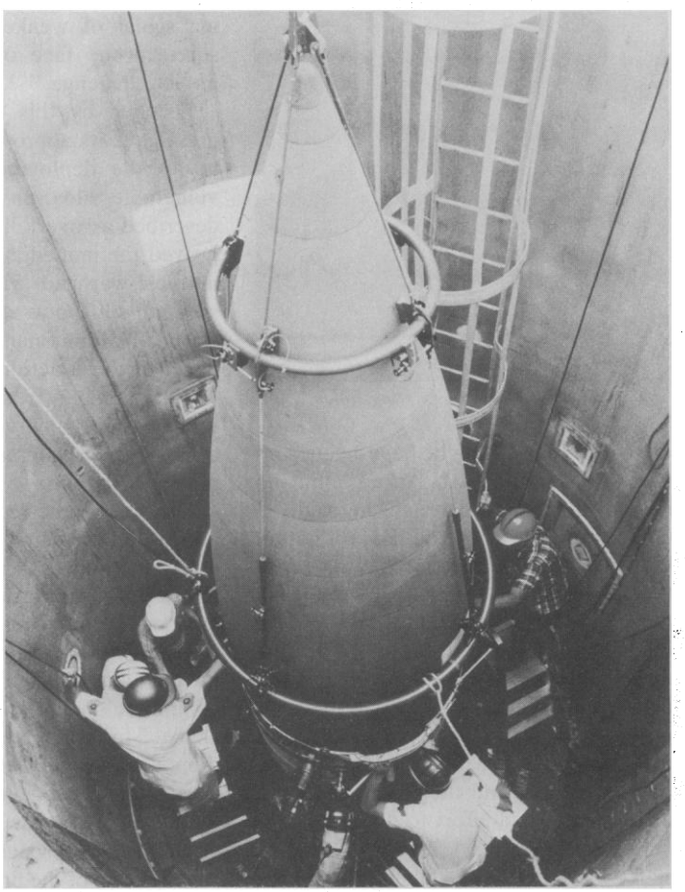
What they came up with instead was a plan to put the missile in existing concrete silos and to harden the silos even more against the effects of a nearby nuclear blast. Richard DeLauer, the under secretary of defense for research and engineering, was one of the few Pentagon officials to learn of the decision before it was announced. "We wanted to build the MX—that was a given," he said in an interview. "We had to put it somewhere or put it in a warehouse. There was no survivable basing scheme we could count on right now and so what we said was we'll put 'em in existing holes."

Some of Weinberger's initial explanations were contradictory. Reporters were told that silos would be hardened to withstand blast pressures of up to 3000 pounds per square inch (psi); the figure was revised upward during the congressional testimony to 5000 psi. Weinberger at first said that the missiles could be invulnerable through the end of the decade, but he later told Congress that the Soviets could have missiles with sufficient accuracy and yield to threaten them as early as 1987. In any event, he claimed that basing the MX in hardened silos would not be destabilizing. "Having them in the ground, poised and ready, adds to the deterrent in a period when we most need to do that." He blithely predicted that silo hardening would be one of the least controversial items in the President's overall strategic program.

Not long afterward, it became obvious that the idea was a product of substantial technical and political miscalculation. For example, Weinberger said that the MX would probably be placed in silos now housing the aged Titan missiles, to be retired shortly. After a minimal amount of study, it was discovered that the geology near the Titan sites was unsuitable for superhardening. Weinberger also said that the silo modifications would not conflict with the unratified SALT II treaty. "We will take no actions that undercut existing agreements so long as the Soviet Union does likewise," he said. But a quick examination of the existing Minuteman sites revealed none could be hardened to 5000 psi without considerable enlargement beyond that permitted under SALT II.

Perhaps most important, numerous Pentagon officials challenged Weinberger's estimates of the Soviet missile threat. General David Jones, chairman of the Joint Chiefs of Staff, said that he remained to be convinced about the survivability of the silo-based MX. General Lewis Allen, the Air Force Chief of Staff, said that "the current National Intelligence Estimate doesn't quite lead you to that comfortable a view." DeLauer said that "there's no question, especially when you have a distribution, some [Soviet missiles] are going to get into that silo." William Perry, his predecessor, testified that the Soviets could destroy the superhardened silos even now, with warheads of 20 megatons atop their highly accurate SS-18 missile.

In retrospect, it appears that Weinberger was unfamiliar with the implications of his proposal. He settled on it at a



A Minuteman missile being assembled in a silo before a test launch

meeting with Reagan, at which Reagan's top political advisers were present. William Crabtree, director of engineering at the Air Force's Ballistic Missile Office, says "I don't know of any work done by the Air Force on superhardening of silos in advance of the President's decision." Also forced out was Eugene Rostow, director of the arms control and disarmament agency, who believes that silo basing increases the possibility of a nuclear war. "I was not in an intimate, continuous part of the decision process," he says. "I gather that nobody was, because the composition of the meetings kept changing."

Caspar Weinberger

The object is "having them in the ground poised and ready."

Richard DeLauer

"We'll put 'em in existing holes."

Reagan himself might have been confused by the proposal. Asked about its risks at a news conference, he said, "I don't know but what you haven't gotten into an area that I'm going to turn over to the Secretary of Defense. I could say this. The plan also includes the hardening of silos so they are protected against nuclear attack. Now, we know that is not permanent. We know they can then improve their accuracy, their power, and their ability but it would take them some time to do that and they would have to devote a decided effort to doing that."

James Baker, the President's chief of staff, was later asked about the President's demurral. "Well, those are very technical items that I don't think the President should reasonably be expected to involve himself with or know by rote," he said.

Congress, however, soon caught on. Motivated by concern that silo hardening would be a costly self-delusion, it passed a measure in December that limited the Pentagon to spending only $20 million for the study of silo hardening during the current fiscal year, a measure that effectively rules it out as a short-term solution to the vulnerability problem. In the Senate, an attempt was made to eliminate all funds for silo basing of the MX, but it lost by a vote of 30 to 65. As a result, basing in unhardened silos could go ahead.

The unsuccessful attempt to prohibit silo basing was cosponsored by Senator Mark Hatfield (R–Ore.), who said it was expensive, worthless, and provocative to the Soviet Union. Joining him was Senator John Glenn (D–Ohio), who said that the idea "defies any logic that I can dream up." But they were opposed by Senator John Tower (R–Tex.), chairman of the Armed Services Committee, who said that any delay in the deployment of the MX would imperil the security of the United States. He was aided by a letter from the President, who said that a rejection of any element in his strategic package "would be a dangerous and misleading signal of weakening American resolve in the face of an ever growing Soviet challenge."

Fortified by this message, the Congress gave its approval for work leading up to the deployment of the MX in vulnerable silos. In what can only be described as overkill, Congress also approved the immediate deployment of 50 multiple-warhead Minuteman III missiles in silos now housing the single-warhead Minuteman II. The combined effect of these actions is to increase by 460 the number of highly accurate U.S. warheads in vulnerable silos. The total cost for this program will be approximately $7 billion.

There are some recent signs that Congress might rescind its decision. Last week, the Senate Armed Services Committee voted to restrict funds for the MX in next year's budget to permanent—not interim—basing solutions, thus eliminating the plan to put it in silos. Tower, the committee's chairman, said that he had changed his mind, and now opposes anything that does not ensure missile invulnerability. Consequently, if the committee gets its way, development and testing of the MX will proceed on schedule, but construction of the first nine missiles will be delayed by at least a year, and deployment by 3 or 4 years. (The catch is that the committee also voted to force the Administration to decide on a permanent basing mode 6 months earlier than planned—a schedule that could result in sloppy study and a defective proposal similar to those proposed in the past.) No action has been taken in the House as yet.

Unless Congress concurs with the Senate committee and reverses its judgment last year in favor of the silo basing, the United States will wind up pursuing a policy that it has tried mightily to avoid. Amazingly, the military—which led the charge for a secure basing mode—now seems ready for retreat in order to equal a score with the Soviets. General Allen, for example, testified recently that "there are pluses and minuses with regard to putting the MX in silos. The minus, of course, that has always worried us is that it looks like a first strike capability. It tends to put the President in a use-or-lose situation. Therefore, one is concerned that it adds to instability. The rebuttal to that, as compared to the warehouse, is that we didn't create this situation. The Soviets did, by building all of those MIRVed systems with such high accuracy and such great effectiveness. They have out-paced us so tremendously in this area that our lack of challenge to them, of course, puts us in this terribly awkward situation. Therefore, even though we don't seem able to solve the problem, I think the argument goes that we ought to at least put that enormous capability of theirs at risk. These missiles in silos are intended to do that. They cause the Soviets to ponder whether their unstable, vulnerable, but highly effective ICBM force is really the right thing to have and perhaps it will lead them to some course of action in the future which will make them a little easier to deal with."

Perhaps it will also lead everyone into World War III. Who can say? All that seems clear is the chain of events that led to this witless decision. At its start was political expediency, followed by technical miscalculation, compounded by political compromise. Unlike the average federal blunder, this one puts the security of the nation at stake.

During an attempt to sell the President's plan on Capitol Hill, DeLauer remarked that "there is no nation rich or foolish enough to spend $5 billion to $7 billion on the survivability of a system unless it is intended for that system to ride out an attack." Apparently, he did not have the United States in mind.

—R. JEFFREY SMITH

Trucks, Trenches, Trains, and Blimps

The U.S. Air Force has been worried about the potential vulnerability of the land-based missile force since the 1950's, when talk of a "missile gap" between the Soviet Union and the United States was widespread, and fear of strategic inferiority was in the air. For a long time, the easiest solution was simply to keep the missiles in silos constructed of concrete and steel sufficient to withstand the effects of a nearby nuclear blast. During the 1970's, the Air Force spent $1.5 billion to strengthen the silos that house Minuteman missiles. But the Soviets can now aim their missiles so accurately that silos of virtually any strength can be destroyed.

One alternative to basing missiles in silos is to move them around so that the Soviets do not know where they are, and the Air Force has studied this extensively, albeit totally without success. Lieutenant General Archie Old, Jr., laid out the rationale in 1959: "Mobility adds invulnerability to the force. It represents a great advance in America's deterrent posture."

Old's own idea was to put the Minuteman aboard trains on commercial rail lines. At least 90 missiles would ride 30 trains, which could park periodically on unused track so as to elude Soviet detection. The idea was studied for 2 years at a cost of $108 million before the government realized how absurd it was. "Nobody could find a way to move a large traffic of nuclear weapons safely on a public carrier," says an understated Defense Department summary of the program. "Likewise, the possibility of sabotage [was] difficult to guard against."

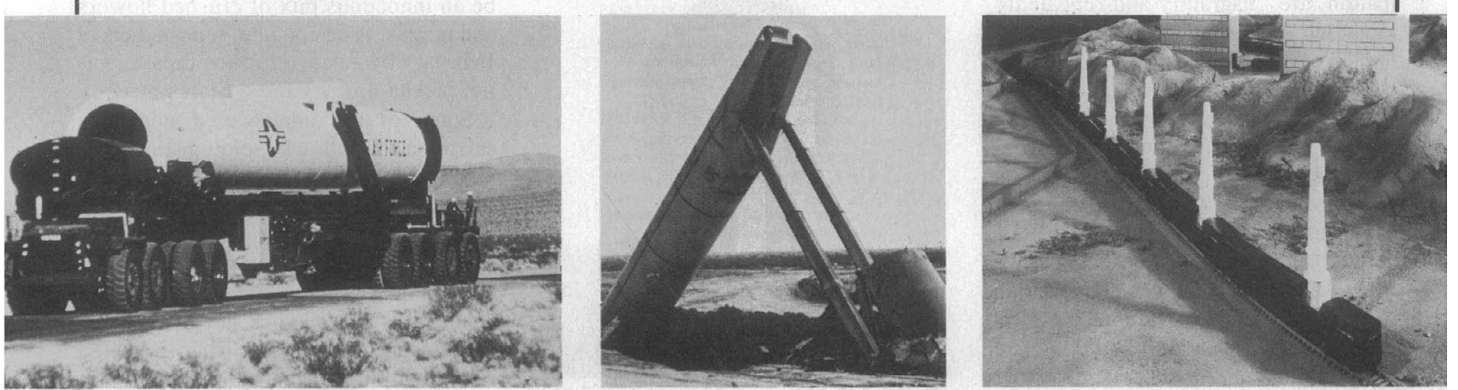
This was only the first in a long series of costly studies to address the Air Force's dilemma. An official of the Boeing Aerospace Company, where much of this work has been performed, says that about 70 or 80 ideas have been routinely reexamined every 2 years or so "since Minuteman was invented."

As might be expected, some are rather bizarre. In the mid-1970's, for example, the Air Force seriously investigated the possibility of putting missiles aboard dirigibles of enormous length and girth, each capable of floating for 3 weeks and gliding at 30 knots. Goodyear, which owns the only blimps still in use, was contacted for operating advice, and the DuPont company was contacted for information on suitable fabrics. Under one variation, four helicopter blades would be attached to assist the blimp's lift. But the scheme fell prey to concerns about "adverse weather conditions and ground handling requirements," according to an Air Force summary. An additional worry was that the blimps might be destroyed in a nuclear barrage.

Other peculiar ideas were to put the missiles aboard ships on coastal and inland waterways, or to orbit them in outer space; neither of these went far. From 1968 to 1970, however, the Air Force earnestly studied the possibility of constructing superhardened silos and shuttling missiles from one to another. This was abandoned in 1971, when a plan was developed to put missiles aboard jumbo jets. The idea was promoted as an explicit alternative to the Navy's new Trident submarine, but by 1978, this plan too had been junked. Then a new plan for shuttling missiles around in a buried trench was considered. Sample trenches were dug, and the government was on the verge of spending several hundred million dollars of development money, when it was learned that a warhead landing anywhere on the trench might destroy all of the missiles inside, because of the propagation of the blast wave.

The Air Force's Ballistic Missile Office in San Bernardino, which is responsible for this work, has no idea how much has been spent on futile ideas, but the total is well over a billion dollars. In addition to the money for the rail concept, the Air Force spent $184 million in the 1960's to consider putting its missiles aboard trucks in Canada, Alaska, Europe, and the United States. At one point in 1978, more than 300 people were working full time on the missile-basing problem. Boeing alone has received $300 million since 1976, and others received at least $450 million in the same period, all to no avail.

Herbert York, who served as the top Pentagon scientist under President Eisenhower, described a parallel set of events in his 1970 book, *Race to Oblivion*. Fear of the danger posed by the potential missile gap in the 1950's, he says, spawned "a thousand and one technical delights for remedying the situation. Most were expensive, most were complicated and baroque, and most were loaded more with engineering virtuosity than with good sense." Somehow his observation escaped notice.—R.J.S.



Over $1 billion for useless missile-basing schemes

The truck at left was constructed for a silo-basing scheme abandoned in 1978; the raised trench at center was discarded in 1977; and the toy train at right was the model for a real missile-carrying train constructed in 1959 and junked in 1961.

0036-8075/82/0409-0153$01.00/0