... the report sent to the Secretary of Defense said that this equipment will do the job that the Department of Defense wants to do. ...

—John Foster, Director of Defense Research and Engineering, citing secret O'Neill committee report on the Safeguard ABM system.

Dr. Foster’s remarks indicate that we made recommendations that in fact we did not make.

—Professor Sidney Drell, member of the O’Neill committee.

In the previous chapter we presented some examples of the ways in which the public can be misled by the selective release and suppression of analyses and information on which government decisions are based. In this chapter we consider a debate during which government officials publicly misrepresented confidential advice. The advice concerned the effectiveness of first the Sentinel and later the Safeguard antiballistic missile systems.

Background

The search for a defense against intercontinental ballistic missiles armed with nuclear explosives began even before the development of the offensive weapons had been completed. The first contracts for feasibility studies
on an antiballistic missile (ABM) system were let by both the U.S. Army and Air
Forces in 1955.1

Two years later, in October 1957, the launching of the first artificial earth
satellite (Sputnik) by the Soviet Union convinced most Americans with a
dramatic suddenness that the Soviets had developed a capability for interconti-
nental nuclear missile warfare.

The Armed Services responded to the resulting tremendous concern by
proposing the deployment of an ABM system. On November 20, 1957, less than
two months after the launching of Sputnik, the New York Times reported that
Army Chief of Staff Maxwell Taylor made a proposal to the Joint Chiefs of
Staff that the Army antiaircraft missile system be upgraded into a system with
ABM capabilities over a period of three years and at a cost of $6.7 billion. The
next day the New York Times reported that the Air Force had submitted a
position paper to the Joint Chiefs which threw doubt on the capabilities of
Army’s proposed system. A few days later the Air Force announced that it was
developing its own ABM system.2

PSAC is Created

The decision in this case was not entirely up to the military, however. In
response to the crisis triggered by the launching of Sputnik, President
Eisenhower had turned for advice to scientists and engineers outside the
government. Most of these outside experts had become involved with weapons
technology during World War II, when they had gained the nation’s respect by
leading the efforts which resulted in the development of radar and nuclear
weapons. After the war they had remained advisors to the Atomic Energy
Commission (AEC) and the Department of Defense. A month after Sputnik,
Eisenhower gave them direct access to the White House by moving the Science
Advisory Committee of the Office of Defense Mobilization into the White House
as the President’s Science Advisory Committee (PSAC). The president of MIT,
James Killian, served as PSAC’s first chairman and also as the President’s
full-time science advisor.

After consulting with PSAC, President Eisenhower decided not to approve
the deployment of an ABM system—on the grounds that the technology was
inadequate. Instead, following PSAC’s advice, he created the new civilian post of
Director of Defense Research and Engineering to supervise the armed forces’
research and development activities. The first person appointed to the new post
was a member of PSAC, Herbert York, a physicist and the director of the AEC’s
nuclear weapons development laboratory at Livermore, California.

But the Democratic majority in Congress blamed the Soviet space triumph on
the complacency of the Eisenhower administration and was not satisfied with
these actions. Congressional committees were set up to investigate the situation.

The Antiballistic Missile Debate

The chairman of the Senate committee, Lyndon B. Johnson—then a Democratic
senator from Texas and the Senate’s majority leader—was particularly critical of
the decision not to develop an ABM system.3 The United States succeeded in
launching its own satellite a few months after the Soviets, however, and the
criticism eventually subsided.

In 1960, as the Presidential election approached, the issue came alive again.
And in October, just before the election, the Democratic Presidential candidate,
Senator John Kennedy, in a speech to an American Legion audience, denounced
the Eisenhower administration for having allowed a “missile gap” to develop and
for its failure to deploy an ABM system.4 After Kennedy was elected, however,
his science advisors quickly convinced him that the technology was still
inadequate, and he refused to order deployment despite a continuing public
debate, fueled in part by Soviet claims of breakthroughs in their own ABM
development program5 and in part by opponents of the proposed nuclear test
ban who seized upon the danger of the Soviets winning the “antimissile missile
race” as a reason for continued atmospheric testing.6

Occasional public statements during this period indicated a parallel debate
going on within the executive branch between the scientific advisors and the
generals. In January 1962, Hans Bethe, one of the most eminent scientific
advisors on strategic weapons, stated that he felt that development of an
effective antimissile missile was hopeless.7 A few months later General Barksdale
Hamlett, Vice Chief of Staff of the Army, argued the opposite view.8 In March
1963, General Maxwell Taylor, now Chairman of the Joint Chiefs of Staff,
warned in Congressional testimony that the United States must win the race for
an antimissile missile.9 At the same time, however, the Department of Defense
undertook a major program to develop multiple warheads for U.S. strategic
missiles in order to insure that the United States would be able to overwhelm
any Soviet ABM system by sheer force of numbers. The scientific advisors
argued that the Soviets could similarly penetrate any U.S. missile defense with
multiple warheads or other “penetration aids.”10

The year 1964 was again a Presidential election year, and the Republican
candidate, Senator Barry Goldwater, launched an all-out attack on the reliability
of the U.S. missile deterrent and the lack of progress of the ABM development
program. He was engagingly candid in stating that he was encouraged to make
this attack by the fact that John Kennedy had used the “missile gap” charge
with considerable effect against the Eisenhower Administration.11 Goldwater’s
attack had little impact, however, as the major issue of the campaign became the
war in Vietnam.

In late 1965 the Joint Chiefs of Staff, apparently discouraged with the
political prospects of an ABM system oriented toward the Soviet Union,
recommended deployment of an anti-Chinese system. (The Chinese had tested
their first nuclear device a year before.12) But President Johnson, apparently
strongly influenced by the impact which the $20 billion program would have
had on a budget already strained by the Vietnam War and “Great Society” pro-
grams, sided with Secretary of Defense Robert McNamara against deployment.
The pressure for deployment continued to mount. In November 1966, Secretary of Defense McNamara made public the information that the Soviet Union was deploying an ABM system. According to Defense Department leaks, after the initial deployment of one ABM system around Moscow, deployment of another system had begun across the attack on the Soviet Union. The Senate had already in the spring of 1966 added $167.9 million to the Defense budget to be used for ABM “reproduction funds.” The funds had not been requested by the administration, and they were not spent. Secretary McNamara responded to the heightened pressures for deployment by revealing more about the multiple warheads which were being developed for U.S. missiles to guarantee penetration of any Soviet system. Later it became clear that the larger Soviet “ABM system” was actually an antiaircraft system.13

In 1967, as his political position became weaker, President Johnson’s support for McNamara’s anti-ABM position also weakened. In his annual budget message to Congress, Johnson asked for funds for the deployment of a U.S. ABM system in case an agreement with the Soviets for a mutual moratorium on deployment could not be achieved.14

This weakening of the President’s stance triggered an all-out public campaign for the ABM by the Joint Chiefs. Their chairman, General Earl Wheeler, stepped so far out of his role as McNamara’s subordinate that he presented the case for ABM deployment on television.15

At about this time McNamara made a last attempt to convince President Johnson of the folly of going ahead with the deployment of an ABM system. He invited all the men who had served as Presidential science advisors or as Directors of Defense Research and Engineering (DDRE) to meet with Johnson and to present to him their views on the proposal for deployment of an American ABM system. All except the incumbent Director of Defense Research and Engineering, John Foster, told the President their reasons for opposing such a move. Johnson was not impressed.16

The Decision to Deploy

The pressure on the administration increased further that autumn when key Congressional committees joined the Joint Chiefs in calling for a decision to deploy ABM. The Senate Appropriations Committee under Senator Richard Russell (D-Ga.) publicly informed the President that his administration would have to bear the responsibility for any further delay.17 And Senator John Pastore (D-R.I.), chairman of the Joint Committee on Atomic Energy, announced that his committee would also fight for deployment.18

The Antiballistic Missile Debate

The coup de grace was delivered by Republican Presidential aspirant Richard M. Nixon on September 14, 1967. He stated that, unless Johnson decided to deploy the ABM, the President would find the issue of the “missile gap” turned upon him during the forthcoming 1968 Presidential campaign. “It’s a deadly boomerang,” he gloated.19

This time Johnson was on the wrong side of the Vietnam issue and in no position to take such a threat lightly. On September 18, four days after Nixon made his statement, Secretary of Defense McNamara announced the administration’s decision to deploy a “light” anti-Chinese ABM system. The speech in which he made this announcement ironically also presented an extremely effective argument against deployment and warned against further surrender to the pressures for escalation of the arms race.

There is a kind of mad momentum intrinsic in the development of all nuclear weaponry. . . . The danger in deploying this relatively light and reliable Chinese-oriented A.B.M. system is going to be that pressures will develop to expand it into a heavy Soviet-oriented system.20

McNamara’s announcement marked the end of an era in the relationship between scientists and the executive branch. Scientists had gained influence—in some cases greater than that of the Joint Chiefs—as a result of the Sputnik crisis. A decade later, however, when it was obvious that the United States was far ahead of the Soviet Union in strategic weapons and in space technology generally, this area ceased being one of overriding public concern. The decision-making power then returned to the arms lobby.

Citing the Experts

Just as McNamara’s September 18 speech served to mark the end of a decade of unparalleled influence for scientists in United States strategic weapons policy, it also gave an indication of what the new relationship between scientists and the administration in this area was to be. Toward the end of his exposition on the futility of building a heavy ABM system as protection against Soviet strategic missiles, McNamara invoked the names of the scientists whom he had brought together in President Johnson’s office:

If we . . . opt for a heavy ABM deployment—at whatever price—we can be certain that the Soviets will react to offset the advantages we would hope to gain. It is precisely because of this certainty of a corresponding Soviet reaction that the four prominent scientists—men who have served with distinction as the science advisors to Presidents Eisenhower, Kennedy, and Johnson, and the three outstanding men who have served as directors of research and engineering to the three Secretaries of Defense—have unanimously recommended against the development of an ABM system designed to protect our population against a Soviet attack.
McNamara's statement was misleading in that he presented only half the truth. He failed to mention that all of these scientists (with the exception of Foster) had also opposed the deployment of the Chinese-oriented system which he was announcing. He thus obscured the basic fact that a political and not a technical decision has been made. As skeptics suggested, the primary mission of the ABM system was not to defend against Chinese or even Soviet attacks; fundamentally, it was a Republican-oriented system.

Until McNamara made his announcement, the battle over whether or not to deploy an ABM system was, as we have seen, primarily a battle for the President's mind. Once McNamara and the President's Science Advisory Committee had lost that battle, however, a few of the scientific advisors, notably Bethe, Wiesner, and York, helped take the issue to Congress and the public. We will discuss the public debate which ensued in a later chapter. Here we will only describe some incidents which provided glimpses of the attention accorded within the executive branch to those advisors—notably those then on PSAC—who continued to express their opposition to the ABM within the administration on a confidential basis.

The Senate Foreign Relations Committee Hearings

Much of the technical basis for Congressional criticisms of administration ABM proposals developed during hearings held by a special Subcommittee on International Organization and Disarmament Affairs of the Senate Foreign Relations Committee. Senator J. W. Fulbright (D-Ark.), chairman of the full committee, set up the subcommittee after the 1968 hearings of the Senate Armed Services Committee—which, following its usual practice (since changed), had not heard a single witness opposed to the administration proposals. The special subcommittee, chaired by Senator Albert Gore (R-Tenn.), held hearings on the administration's ABM proposals during 1969 and 1970.

The subcommittee conducted its first hearings in March 1969, before the new Nixon administration had taken a public position on the ABM. During these hearings a number of former top scientific advisors on strategic weapons matters, including Bethe, Killian, Kistiakowsky, and York, testified against the Johnson administration's ABM proposal.

The objections of these scientists were of two basic types: technical—they felt that the proposed missile defense could be easily penetrated even by Chinese missiles; and strategic—they felt that the deployment of an ABM system was unnecessary and could trigger a new arms race with the Soviets. As time went on, however, the debate focused more and more on the technical objections. It was obviously the hope of many ABM opponents that the technical arguments...
Of the four scientists, three were willing to testify; Bronk asked in a letter to be excused from testifying, giving as his reason: "my opinions would be dangerously unqualified."23

The other three testified but did not attempt to rebut the technical objections of the ABM opponents. Instead they supported the President's decision to deploy the Safeguard ABM system because they saw it as a long-awaited commitment of the nation to the idea of missile defense: Teller and Wigner in particular saw Safeguard as a step toward the development of a "heavy" system which would be designed to defend the U.S. population against Soviet attack.24 Apparently it did not bother them that President Nixon had specifically rejected the mission of a Soviet-oriented population defense in his deployment announcement, stating his belief that an effort in that direction would only trigger an arms race between Soviet offensive and U.S. defensive forces which the United States could not win.25

MacDonald was willing to endorse a very limited deployment of the Safeguard system if it were accompanied by a commitment to develop a system which could actually carry out one of the missions which President Nixon had given the Safeguard system—defense of some of the U.S. Minuteman missile bases against a possible Soviet first strike. MacDonald stated that "if properly emphasized, research and development could, in a short time, produce a system much better suited to defending our strike forces."26

At the end of MacDonald's presentation Senator Gore commented:

There is a great similarity between the conclusion at which you arrive and that of Dr. Hornig which he has presented. Your logic is powerful. Thank you very much.27

Hornig, formerly President Johnson's science advisor, had just testified against deployment. It appears that the administration made an exception to its rules of confidentiality in volunteering MacDonald's services as a witness for the Safeguard ABM deployment. The other members of PSAC, who were almost unanimously of the view that the deployment of the Safeguard ABM system was senseless, were requested to keep these views confidential.

Deputy Secretary Packard's Consultations

Following Defense Secretary Laird's testimony before Senator Gore's subcommittee, a more detailed discussion of how the Safeguard ABM system would work was presented by Deputy Secretary of Defense David Packard. Packard had had the responsibility of directing the two-month-long review within the Nixon administration which resulted in the modified Safeguard ABM deployment proposal.

The Antiballistic Missile Debate

Toward the end of Packard's testimony, Fulbright asked for more information about who had participated in the review:

SENATOR FULBRIGHT: I think it would be very interesting to have before the subcommittee just who participated in the review and how, and in what depth it was made. The reason that particularly appeals to me is that this committee has done some reviewing too, with some of the leading authorities in the field of nuclear warfare. . . .

MR. PACKARD: The review utilized the full staff of the Defense Department, and those people that the Department had utilized for scientific evaluation. In addition to that, I have talked to some scientific people on my own about the matter, some people who have no connection with the—

SENATOR FULBRIGHT: Who were they who had no connection with the Pentagon? There is nothing classified or secret about this sort of thing is there?

MR. PACKARD: One of the men that I talked to, I have a very high regard for, is Professor Panofsky.28

When Senator Fulbright asked the names of the other outside scientists Packard had consulted, he couldn't remember but promised to send Fulbright a list.

Two days later Panofsky appeared in response to an invitation to testify. A physicist and Director of the Stanford Linear Accelerator Center, Panofsky had been some years before the chairman of PSAC's Strategic Weapons Panel and was still involved in advising the executive branch on these matters. He had not (to the authors' knowledge) previously made public his views on the ABM. Panofsky began as follows:

... To clarify the record I would like to state that I did not participate in any advisory capacity to any branch of the Government in reviewing the decision to deploy the . . . Safeguard system—I appreciate having had the opportunity of an informal discussion with Mr. David Packard, Deputy Secretary of Defense, several weeks ago prior to the . . . decision.

SENATOR GORE: To what extent was this? Was there an extended conversation over a period of time?

DR. PANOFSKY: About half an hour . . .

SENATOR GORE: Did you call upon him or did he call upon you?

DR. PANOFSKY: We happened to accidentally meet at the airport.29

Panofsky thereupon went on to detail at considerable length his reasons for believing that the Safeguard ABM system deployment decision was "an unwise decision from many points of view, from the point of view of sound engineering judgment, economy, and stopping the arms race."30

If this was the extent of consultation that Deputy Secretary of Defense Packard had had with Dr. Panofsky and this the type of advice that he had received from him, what about the list of other outside consultants he had promised Senator Fulbright?
The Antimissile Debate

Fulbright then went on to list some recent Department of Defense fiascos with advanced weapons systems. Some of these systems had cost billions of dollars more than the department had originally told Congress, and the performance of many had fallen so far short of specifications that it was not clear whether they could be used at all. He then continued:

In view of this record, I don't see how you can be so confident of your judgment about these matters. It really shakes my confidence as to whether the Department is capable of an objective view of these matters.

Foster was stung into making a rebuttal:

DR. FOSTER: Mr. Chairman, you have indicated the number of scientists who oppose this Safeguard deployment.

SENATOR FULBRIGHT: There are several grounds. They oppose it on the SALT talks alone. Then in addition they oppose it on the ground that it isn't technically feasible, at the present time at least.

DR. FOSTER: Well, Mr. Chairman, let me just simply point out that I asked a group of scientists to come together as an ad hoc committee and, before the Secretary of Defense made his recommendation to the President, review the program. I deliberately chose scientists who opposed the deployment of Safeguard as well as those who favored it.

In fact, as I recall, when they met there were more against it than for it. I had, however, one very simple instruction for them—to put politics aside and just ask the question: Will this deployment, with these components, do the job that the Department of Defense is trying to do? . . .

There was considerable concern about this move, but the report sent to the Secretary of Defense said that this equipment will do the job that the Department of Defense wants to do . . . [Emphasis added.]

I think it is extremely important that, when you ask a scientist for his opinion, you make sure that you have found a way to rule out political factors, because, as you and Secretary Laird noted at our last hearing, the scientist doesn't have special competence in that area.

Here Foster appeared to be claiming that the Senators had not been
successful in forcing the scientists who had testified before them to keep their political beliefs from biasing their technical presentations. He also indicated his belief that he, an expert himself, had succeeded where the Senators had failed and that, when separated from politics, the technical considerations had turned out to favor the Safeguard system.

When asked to name the members of the ad hoc committee, Foster could not remember all of the names. Among those he mentioned, however, were Drs. Marvin Goldberger and Sidney Drell. These scientists had in turn succeeded Panofsky as chairman of PSAC's Strategic Weapons Panel.

When the Senators asked to see the ad hoc committee report, they were told that it was confidential. Matters did not end here, however, because both Drell and Goldberger wrote to Senator Gore about Foster's representation of the conclusions of the ad hoc committee report (commonly identified as the O'Neill Report after the committee's chairman, Dr. Lawrence O'Neill, president of the Riverside Research Institute, an ABM contractor). Goldberger wrote:

I can only presume that the implication [was] that our panel supported the arguments presented by Dr. Foster and the Department of Defense in justifying the next phase of Safeguard to your committee.

The report took no such position. [Emphasis in original.] 37

Drell similarly wrote that "Dr. Foster's remarks indicate that we made recommendations that in fact we did not make." 38

Senator Gore of course invited both men to testify before his subcommittee.

A few excerpts will give the flavor of their opinion of the Safeguard ABM system.

DR. GOLDBERGER: ... I assert that the original Safeguard deployment and the proposed expanded deployment is spherically senseless. It makes no sense no matter how you look at it. 39

... If there are enough highly accurate, large payload Soviet missiles to threaten Minuteman without any defense ... Safeguard is irrelevant. 40

... The Chinese will be designing their offensive missile force in the face of our emplaced system whose operating characteristics will be precisely known. Since they are not noted for their stupidity, they will in all probability take steps to counter the defense by the use of penetration aids, or circumvent it entirely by, say, attacking Hawaii if they just want to kill people or using aircraft or ships to attack West Coast cities with nuclear weapons. 41

DR. DRELL: ... [Safeguard] simply fails to respond to the threats postulated by the Pentagon, and furthermore it is not cost effective. 42

SENATOR [CLIFFORD] CASE [D.-N.J.]: ... Your whole opposition to Safeguard is not in any way based upon any contempt or downgrading of... Soviet capability? 43

DR. DRELL: No sir. It is merely a contempt for the capability of Safeguard. 43

This, then, was a sample of the anti-ABM opinion on PSAC which the Nixon administration had chosen to conceal behind a wall of confidentiality in 1969 while offering Congress instead the ambivalent endorsement of Dr. MacDonald.

Release of the O'Neill Committee Report

After the devastating testimony of Drell and Goldberger, the Defense Department had little to gain by keeping the O'Neill report secret. The report was released a month later, on July 24, 1970. 44 It addressed the question of how well the Safeguard system would fulfill the missions that President Nixon had assigned it: (1) defense of the U.S. Minuteman strategic missile bases against a Soviet surprise attack (the mission to which the Nixon administration had given the greatest emphasis); (2) defense of the U.S. population against a nuclear attack launched from China (the mission which had originally been given to the system by Secretary McNamara); and (3) "protection against the possibility of accidental attacks from any source" 45 (a mission so ill-defined that it was hardly even discussed).

As to the first mission, the panel concluded:

The group believes that a more cost effective system for the active terminal defense of Minuteman than Phase IIA of Safeguard can be devised. 46

Regarding the second mission the panel reported a lack of consensus.

When Senator Fulbright put the O'Neill report into the Congressional Record, he commented:

[This] is not a ringing endorsement of the Safeguard system. 47

We have had, in the past, a missile gap. More recently, we have experienced a credibility gap. We seem now to be combining the two in a missile credibility gap which emerges clearly from the record of the Defense Department in attempting to support claims that it has submitted the Safeguard system to independent outside review. The missile credibility gap was opened last year by Mr. Packard's implication that Dr. Panofsky had supported the Safeguard system. It was widened this year by Dr. Foster's assertion that the O'Neill panel had concluded that Safeguard could meet certain objectives. Two members of the O'Neill panel do not agree and surely they must know what they decided and recommended. One of the members of the O'Neill panel, Dr. Drell, went even further and said:

"All analyses of which I am aware make it clear that, if defense of Minuteman is the principal or sole mission of Safeguard, its further deployment cannot be justified."

For we who must rely on the informed judgements of others, as far as technical matters are concerned, Dr. Drell's statement stands as a severe indictment of the Safeguard system and calls into question the tactics employed by the Defense Department in seeking to make it appear that the scientific community supports the Safeguard system as an effective defense of our deterrent missile force. 48
We have seen in this chapter how executive branch spokesmen in an important national debate cited the experts while suppressing their reports. The evidence indicates very clearly that for the public to accept such statements at face value is an invitation to governmental corruption of the truth.

In science, the invocation of authority as a substitute for evidence was discredited in the Renaissance. Yet here we find government officials trying to revive this tactic in an effort to deceive the public. It is distressing to see how little criticism of this dangerous tendency has been offered by the scientific community. Even if the abuses which we have described had not occurred, it would still be against the public interest to conceal the technical bases of public policy. The ABM debate shows that even the general capabilities of advanced strategic systems can be publicly debated without the disclosure of classified details of hardware or tactics. It is characteristic of scientific research that its practitioners are continually testing even the most well-established theories. No scientific statement is protected from question by the eminence of the researcher who has put it forward. Indeed, scientists often gain fame by finding unsuspected imperfections in the edifices raised by their revered predecessors. The technical information which forms the basis for public policy should certainly not be immune from similar reexamination. Although we have in this chapter considered instances where the federal executive branch appears to have had available technically competent advice—even though it did not want to hear it—there are many other instances in which government agencies have received dangerously inadequate or faulty advice. In these cases, some of which will be presented below, it has only been as a result of members of the larger scientific community “raising a ruckus” that government officials have become aware of the inadequacies in their information.

NOTES

3. Ibid., January 24, 1958, p. 1; January 24, 1958, p. 6; July 26, 1958, p. 5.
6. Ibid., September 6, 1961, p. 3; October 31, 1961, p. 15.