defensive operation by the United States, with the Soviet Union a privileged sanctuary from which to attack Turkey.18

In October, Cabot Lodge made an eloquent presentation in the United Nations of the entire Middle East affair. The favorable reaction of the assemblage was a tribute to Cabot's abilities and to the general esteem in which the United States was held, viz-a-viz the Soviet Union.

At the end of 1957, though tensions continued, the Suez Canal was operating efficiently and carrying the traffic of nearly all the maritime nations of the world; the Gulf of Aqaba was open to Israeli shipping. United Nations forces maintained an uneasy peace in the Gaza Strip. On the other hand the threat of Soviet penetration of the Middle East remained; and a left-wing regime seemed strongly entrenched in Syria.

One fact was especially encouraging. Throughout 1957, relations between the British and American governments had been a model of harmony and mutual confidence. Our British friends had several times expressed their gratification at this development. On my part, I could not have been more satisfied with the closeness created between Macmillan's government and ours.

18 Secretary Dulles had been made the villain of American foreign policy by Khrushchev. At this press conference Foster reminded the group of the dark threats hurled at Turkey when it joined NATO in 1952, and recalled that Dulles himself had been charged by the Communists with having started the Korean War; the Soviets had passed photographs of the Secretary in Korea around the UN Security Council, presumably designed to prove that he had begun everything with an attack on North Korea by South Korea.

CHAPTER VIII

Sputnik and a Sputtering Economy

Fear cannot be banished, but it can be calm and without panic; and it can be mitigated by reason and evaluation.

—Vannevar Bush

At 7:30 on the evening of Friday, October 4, 1957, at the Tyuratam Range in Kazakhstan, the Soviet Union fired into orbit the world's first manmade satellite. It carried a new name into the language—"Sputnik," Russian for "traveling companion." Two hours after Sputnik had successfully completed its first orbit of the earth, the Soviet news agency, Tass, began broadcasting details to the world. Sputnik, Tass said, was circling the earth in a ninety-five-minute orbit about 560 miles up, traveling at approximately eighteen thousand miles an hour.

The satellite itself had a diameter of twenty-two inches, a weight of 184 pounds. From two transmitters, it was sending continuous radio signals to the earth.

This feat precipitated a wave of apprehension throughout the Free World. Newspaper, magazine, radio, and television commentators joined the man in the street in expressions of dismay over this proof that the Russians could no longer be regarded as "backward," and had even "beaten" the United States in a spectacular scientific competition. People now recalled with concern that only a few weeks earlier the Soviet Union had claimed the world's first successful test of a multi-stage ICBM—a shot which, the Russians said, demonstrated that they could fire a missile "into any part of the world."

The Soviet scientific achievement was impressive. The size of the thrust required to propel a satellite of this weight came as a distinct surprise to us. There was no point in trying to minimize the accomplishment or the warning it gave that we must take added efforts to ensure maximum progress in missile and other scientific programs.
Most surprising of all, however, was the intensity of the public concern. Soviet space ambitions had been no secret. In April of 1955 the Soviet Union had named publicly a commission of scientists who would seek to launch a satellite. (They had in fact been at work for a year or more.) In June 1957, for example, Soviet scientists at an International Geophysical Year meeting,1 reminded the world of their intention.2 In September they reiterated it, this time announcing estimates of the satellite’s approximate weight. Nonetheless, the possibility of Soviet success had either been accepted, or ignored, by our own people. As a matter of fact, the New York Times, on October 1, 1957, carried on its front page an article headlined “Light May Flash in Soviet’s ‘Moon’”; the story caused little stir. Yet three days later, when the “moon” became a fact, its light was blinding. Politicians declared themselves “shocked.” Alleging inexcusable delay in our own space program, Senators Stuart Symington and Henry Jackson charged, on the day after the Russians’ Sputnik announcement, that our government’s policy of economy had caused this country’s satellite program to fall behind. They purported to read in the Sputnik success alarming evidence that the Soviet Union was now not only first in space, but far ahead in guided missiles.

Why, such critics demanded, were we not the first to place a satellite in space?

One answer, which the political opposition soon realized and understandably soft-pedaled, was supplied by one of America’s foremost missile experts. “The United States,” Dr. Wernher von Braun said, “had a ballistic missile program worth mentioning between 1945 and 1951. Those six years, during which the Russians obviously laid the groundwork for their large rocket program, are irretrievably lost ... our present dilemma is not due to the fact that we are not working hard enough now, but that we did not work hard enough during the first six to ten years after the war.”

To understand the meaning of Dr. von Braun’s statement, it is necessary to retrace the story of the missile program, for the satellite vehicle is dependent upon the same “booster” (first-stage rocket) as the one which launches a long-range missile.3 It was in this effort—the development of large-thrust boosters—that the Soviets had achieved a spectacular head start.

Warnings had not been lacking, immediately following the war, that missile development should be accorded high priority. In 1948, for example, a Presidential Air Policy Commission had said: “It would be unwise to assume ... that other nations will not have ... missiles capable of delivering an attack on the United States mainland ... by the end of 1952... the United States must press most energetically and immediately its basic and applied research and development program ... with a view toward the development at the earliest possible date of the most effective piloted aircraft and guided missiles and the defense against them.” In February of 1947, when I was serving as Chief of Staff of the Army, I had reported at a hearing before the House Military Appropriations Subcommittee that “in the field of guided missiles, electronics, and supersonic aircraft we have no more than scratched the surface of possibilities which we must explore in order to keep abreast of the rest of the world. Neglect to do so could bring our country to ruin and defeat in an appallingly few hours.”

However, the responsible political authorities, preoccupied in those years with the reduction of military force and expenditures, failed to put more than token effort into the development of the ballistic missile. In the seven years between fiscal years 1947 and 1953, the United States programed less than seven million dollars for long-range ballistic missiles. Twice, once in 1947 and again in 1950, the Executive refused to spend

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1 An international cooperative scientific study project involving scientists from four nations. The “Year” actually spanned eighteen months, from July 1, 1957, through December 1958.

2 As early as November of 1956 our intelligence people had estimated the U.S.S.R. would probably have the ability to launch an earth satellite after November of 1957.

3 The satellite and the missile do have many different requirements. The satellite, for example, requires instruments of considerable power and yet light weight so that it can send messages back to earth affording information on the nature of outer space. Without this instrumentation the launching of a satellite is a completely useless stunt. It requires, furthermore, a system for firing the second- and third-stage rockets at such time as to give the satellite its maximum impetus at a point in its trajectory when it has assumed the intended altitude.

The missile, on the other hand, faces problems of re-entry into the earth’s atmosphere, a problem not shared with these first satellites which were not designed for recovery. This proved to be a metallurgical problem of no mean proportions because of the high temperatures generated on the surface of the re-entering nose cones.

Furthermore, to launch a satellite the size of the Soviet Sputniks, a booster was required of far greater thrust than that necessary for any of our own missiles, even the intercontinental type. (This was due partly to the efficiency we had obtained in yield per pound of warhead.)

While a successful satellite program is related to a successful missile program, the achievement of superiority in one does not necessarily indicate superiority in the other.
We programmed $515 million for the separation of the earth satellite program ("Project Vanguard") by use of the Jupiter-C booster, a by-product of their developing the Army Redstone Arsenal who, as it turned out, could undoubtedly have placed a satellite in orbit sometime late in 1956, considerably before the Soviets. However, when this capability was discovered in the middle of 1956, the Defense Department and the National Science Foundation showed little inclination either to drop Vanguard, already well under way, or to divert the Redstone group from missiles to satellite work. Since no obvious requirement for a crash satellite program was apparent, there was no reason for interfering with the scientists and their projected time schedule.

Much vital work on both the missile and satellite programs was going on during the spring of 1957, but that was the period when the opposition Congress was engaged in reducing my legislative program, making cuts which, in their effect upon mutual security and defense, were serious and, to me, frustrating. At one meeting I told Republican legislative leaders that our security demanded that we be the first nation to produce operational long-range ballistic missiles, and that we should fight with all our resources against the opponents in the House of Representatives who had threatened to reduce the Defense Department budget by $2 billion, principally in appropriations for missiles and aircraft.

At another meeting Charlie Wilson reported that some members of the Congress had criticized the Defense Department for using some of its emergency funds to help tide over the earth satellite program. The costs of Vanguard had mushroomed, and he felt he had allocated to it all he could, particularly at a time when he was having difficulty taking and all information gained from it were something of a gift to the scientific community of the entire world.

In the United States we were careful to keep the earth satellite program separated from the Defense Department's work on long-range ballistic missiles. Though the Navy would supply the launching facilities for the satellite, it was to go into orbit strictly as a peaceful scientific experiment, and was not to interfere with our top priority work on missiles. No secret missile information would be involved in the satellite program; our scientists deliberately planned to share all information acquired with participating scientists all over the world.

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in finding funds necessary for essential missile projects. Both he and
Waterman hesitated to try to wring more money needed for satellites out
of the Congress, bent as it was at that moment on "economy."

The funds for Vanguard were eventually found, and the program
continued as rapidly as, in the scientists' opinions, the money could be
usefully spent. But its progress was not without delays and difficul-
ties—some created by the same legislators who were later so quickly con-
verted to impatience with our efforts.

* * *

On the morning of Tuesday, October 8, I met with a group of prin-
cipal military and scientific advisers to discuss the Soviet satellite and
the reaction to it. I was particularly annoyed by a complaint made pub-
licly by two Army officers over the earlier decision to continue the Navy
Vanguard as the United States satellite program, when, according to them,
a booster developed by the Army could have long since done the job.
I asked Donald A. Quarles, Deputy Secretary of Defense, about the
report.

"There is no doubt," he replied, "that the Army Redstone, had it been
used, could have orbited a satellite a year or more earlier." But he re-
viewed and defended the reasons for the separation of the satellite and
missile programs. Basically the reasons were simple. In the satellite pro-
gram, a part of the International Geophysical Year project, it was ex-
pected that all information gained would be freely given to all nations.
Observers would be welcome. On the other hand, in a missile program,
many defense secrets would be jealously guarded. In order to be suc-
cessful in both purposes—and to keep the satellite effort from interfer-
ing with the high-priority work on ballistic missiles—it seemed man-
datory to separate the programs.

Then Secretary Quarles brought up an additional point: "The Rus-
sians have in fact done us a good turn, unintentionally, in estab-
lishing the concept of freedom of international space." By orbiting Sputnik, which
had gone into flight over the airspace of country after country, the
Russians themselves had confirmed this principle. We felt certain that we could
get a great deal more information of all kinds out of the free use of
space than they could. Later that same morning I met with Secretary

* * *

Nonetheless there were two problems created by the Soviet Sputnik.
The first, a short-term one, was to find ways of affording perspective to
our people and so relieve the current wave of near-hysteria; the second,
to take all feasible measures to accelerate missile and satellite programs.
To discuss these matters I asked the members of the Science Advisory
Committee of the Office of Defense Mobilization, a group of distinguished
scientists, to meet with me. As the group gathered in mid-October, I
said that I had invited them in order to learn what ideas and proposals
they might like to advance. The question before us was plain: How
could all the many governmental and government-connected scientific
activities be best supported so as to achieve the best kind of progress?
I was curious, of course, to find out whether this group really thought
that American science was being truly outdistanced.

Dr. Isidor Rabi, of Columbia University, was the first to reply.
"Td"h 'd' b f d .o ay, e
sal,
we can see a num er 0 a van atages o n our s1de.
...
tween ourselves and the Soviets regarding science. In the United States these days, he said, we were not great builders for the future but rather we seemed more preoccupied with stressing mass production of things we had already achieved; the Soviets, on the other hand, are in a pioneering frame of mind, regarding science as an essential tool and as a way of life. In Russia, Dr. Land concluded, science was being pursued, almost universally, both for enjoyment and for the strength of the country.

The country, Dr. Land thought, would reap a tremendous return if I could find ways of inspiring our youth to pursue a whole variety of scientific adventures. There must be some way, he said, to give science the popular appeal in this country that it held in the Soviet Union. We had, of course, done a number of things to give such encouragement [see Appendix K].

I questioned the assumption that the Russians were trying to inspire all their people to enter scientific pursuits. I thought instead, from watching their record over the years, that they had adopted a practice of ruling out the best minds and ruthlessly spurning the rest, so far as higher education was concerned. I said I would seek out every possibility for kindling more enthusiasm for science among young Americans, but I told the scientists that it was fatuous to think that one speech—or any one man—could do the job. There would be a need for an unlimited follow-through. People were alarmed and were thinking about science and education; perhaps this reaction could be turned to good effect.

Dr. Rabi had another suggestion. Many policy matters coming to the President, he said, include a strong scientific component. He therefore recommended the appointment of an outstanding full-time scientific adviser to the White House staff. This I thought a fine idea and remarked that an adviser in that position would also be helpful in stimulating interest in science.7

* * *

Coincidentally with all these preoccupations, we had, for some time been intently scanning indicators of the nation’s economy because of developing signs of weakness—signs which did nothing to cheer up the country after Sputnik.

7 Later in the meeting one member of the group, Dr. Jerome B. Wiesner of MIT, reminded everyone that much of the problem in missiles and satellites came from our late start, rather than from delays after they were initiated by the current administration.

“I have avoided bringing up this fact,” I said, “because it tends to make the question a political football.” Not all my scientific advisers were Republicans.

Throughout my Presidency I made it a practice to keep in close touch with the nation’s business health by means of weekly reports, in capsule form, from various Departments. A typical summary from Secretary of Commerce Lewis Strauss, for example, would cover steel mill operations, automobile output and sales, crude oil and coal production, electric power consumption, railroad car loadings, department store sales, stock indices, and employment figures. When I noted what might appear as a change in trend in any of the areas, I would ask for a detailed report. The Council of Economic Advisers alerted me to broad movements in the economy, giving me a weather map of the climate of business, a map which continuously improved in its promptness and accuracy.

On October 14 I had a major conference with a group of economic experts, including among others, Secretary of the Treasury Robert B. Anderson, who had succeeded George Humphrey; Professor Raymond J. Saulnier, who had succeeded Arthur F. Burns as Chairman of the Council of Economic Advisers; and William McChesney Martin, Jr., Chairman of the Board of Governors of the Federal Reserve System. After a long discussion, all present concurred with Martin, who said, “The economy is making a sidewise movement with a slight tendency to decline.” In layman’s terms, a recession could be in the offing.

“We must watch several dangers,” Dr. Saulnier added. “Federal revenues, instead of totaling $76 billion this year, might come to only $72 billion. Unemployment might go up—by a half million or even as much as a million and a half. We must take every measure to prevent a sharp decline in the economy.”

The group agreed to meet periodically and to keep me informed on government measures that might be advantageous in combating tendencies toward recession.

* * *

In the midst of problems came a welcome interlude—a long-planned state visit from Queen Elizabeth of England and Prince Philip. They arrived in Washington on Thursday morning, October 17. Enthusiastic crowds, standing in a drizzling rain, lined the streets to greet them. My son John and daughter-in-law Barbara joined us for luncheon, and at eight o’clock that night came the first of a lengthy series of engagements. The British Embassy had set up for the royal couple a four-day schedule so crowded that it would have killed anybody but two people as young and vigorous as they. I later told Prime Minister Macmillan that I would have fired anyone who dared to set up for me a program like theirs. In toasting the Queen at the state dinner that evening I recalled our
association with her countrymen back in the days of World War II: "I was given the great privilege of serving with the people of that nation for almost four years. From the Royal Family to the humblest citizen, they so conducted themselves that they enlisted the admiration, the liking, and the respect of every American who came in contact with them.

Then I reaffirmed a conviction that had been made even stronger if possible, during the events of the weeks just past:

"Those great days are not over. The Free World is engaged in a struggle and the total of the Free World's assets are so much greater than those of our potential enemy, . . . that it is ridiculous to compare their brains, their abilities in science, in philosophical thought, or in any phase of culture or of the arts with the combined total of the Rest World.

"But I say 'combined total' advisedly. We are too much separated by things that concern us locally. This is a struggle of ideologies, of a religious way of life against atheism, of freedom against dictatorship.

"But we have the power. The only thing to do is to put it together.

"Our scientists must work together. NATO should not be thought of merely as a military alliance. NATO is a way of grouping our manhood, our resources, our industries and our factories.

"At the heart and foundation of all of this, the English-speaking peoples march forward together, to stand steadfast behind the principles that have made the two nations great—of the same faith in their God, and in themselves—a belief in the rights of man.

"That is the way we will go forward. That courage—the respect we have for Britain—is epitomized in the affection we have for the Royal Family. . . .

"Ladies and gentlemen, will you please rise with me and drink a toast to the Queen."

For the entire period of their stay, the Queen and Prince lived with us in the White House, giving us a most pleasant change of pace amid our day-to-day space and budgetary concerns. We renewed friendships that went back to 1942, when the Queen was a very young Crown Princess.

The couple found time to visit the Upperhville area in Virginia, where the Queen was anxious to see the horses so popular in that region. On Sunday the four of us together went to two religious services, first Episcopal services at the Washington Cathedral and immediately thereafter to the Presbyterian church where my wife and I were parishioners. The route we were to follow from and to the White House had been previously published, with the result that gaily dressed crowds greeted the couple all along the way. It was a beautiful autumnal day; Washington was looking its very best, and the Queen and her husband seemed to enjoy it to the full.

Among her most enthusiastic greeters were our four grandchildren. The Queen, a mother herself, brought them handsomely bound books, appropriate to the age of each—Kipling, Alice in Wonderland, and the like. By arrangement we reserved an hour where she could receive all four—the eldest was then nine years of age, the youngest, two. The children, particularly the older ones, were impressed. Still, having learned something about queens and kings, I am sure they were expecting to meet two persons dressed in brilliant robes, jewels, and crowns. To find that the Queen of England, the young woman talking to them, wore only a dress, however lovely, seemed to perplex them at first but the beautiful and charming lady soon captivated them by her graciousness.

At the time of the Queen's visit, Sputnik had been orbiting the earth for some two weeks and I was anxious to learn of the British reaction. Strangely enough the Prince implied that the British people, on the whole, were far less apprehensive about the satellite than was our population. Like ourselves they had long since heard of the Soviet intention to put a satellite in space, but they seemed to take its successful orbiting as an expected development.

This was one ceremonial visit that we were sorry to see end. However, I think our visitors could have scarcely shared this feeling; they had spent days crowded with so much activity and so many people that they must have looked forward to a period of rest and quiet.

* * *

The Queen's visit, as pleasant an interlude as it was, could not interrupt for long the need for attention to less pleasant subjects and people.

The Democratic Advisory Council, for example—a body, incidentally, that was almost as objectionable to the Democratic leadership in the Congress as it was amusing to us—was, as usual, excessively verbal in this hour of difficulty. I was not too much surprised when, on October 21, I read that it had issued a statement of alarm about the economy, charging that the administration's "negative" policies had thwarted growth, favored big business, and failed to halt inflation. "We cannot," it declared in familiar phrases, "afford to wait until Republican policy gets us into a full-scale depression."

On the 22nd of October I went to New York to speak on medical education. I had completed preparation of the talk three weeks earlier, the day before Sputnik went up, but the headlines after my speech took note of two last-minute additions.
The first was “I shall seek opportunities to talk with the American people, telling them of my beliefs and my determinations in these matters.” The “matters” were the methods of raising the level of our achievements in science, the character and power of our defense and economy, and our responsibilities abroad. “I have unshakable faith in the capacity of informed, free citizens to solve every problem involved,” I said, adding that if in my forthcoming series of speeches I could offer perspective and truth, they would be worth any amount of time and effort.

The second insertion was also impromptu, made on the rostrum as I was speaking against morbid pessimism about the capacity of our private enterprise system to generate and maintain high levels of employment, production, and income.

I was delighted, I said, in a short talk with the guest of honor, Alfred P. Sloan, to hear him ask why people were so pessimistic about our economy, one of the great things that man had produced. There were a good many people in the room that night, I added, who had served in the war and I didn’t believe that any one of them ever saw a victory won by a man with his chin lowered to his chest. “You have to get it up!” I said, and this one sentence gave the ensuing talks the light-hearted label, “chins-up speeches.” But before the speeches could be drafted, there were other developments.

* * *

In the weeks and months after Sputnik many Americans seemed to be seized not only with a sudden worry that our defenses had crumbled, but also with an equally unjustified alarm that our entire educational system was defective. The Soviets, some suspected, would soon surpass us intellectually, if indeed they had not already done so.

Acting on such an assumption, many argued for a broad-gauge crash federal outlay to finance higher education. In answer to such suggestions I could only remind people to think the problem through: “There are grave dangers that would accompany any initiation of general federal support for these institutions,” I wrote to one educator. “In this statement I do not mean, of course, to be opposed to support ... in special areas to meet special and pressing needs of the government.” But I was convinced that my objections to the concept of generalized and direct federal help for all higher education were sound. I enumerated several:8

8 Several years later the Association of American Universities issued a comprehensive document in which it opposed general federal assistance to higher education but favored “categorical aid” in areas of greatest national concern.  

(a). The United States government can obtain no money for this purpose that is not already in the hands of its citizens, corporations, states and localities. Consequently, the process of taking the money away from citizens to return it to localities for special purposes implies a centralization of wisdom in Washington that certainly does not necessarily exist.

(b). The more that our institutions, in general practice, lean on the federal government for this kind of help, the more they invite a kind of federal influence and domination that could have very bad effects. These I do not need to elaborate. . . .

Geographic as well as functional distribution of power has benefited this nation enormously. I hope that this concept may always continue to rule our thinking.

Having said this, I do assure you that I frequently approve federal aid for special educational purposes as indicated above. Moreover, I am heartily in favor of liberal support of public institutions by the states themselves, believing that there is no more necessary function in the country than the proper education of our youth. This means that opportunity must be open to the poor as well as to those who can defray the costs of their own education. . . .

Other persons recommended astronomical amounts of direct defense spending. Again and again I reiterated my philosophy on the defense budget: Excessive spending helps cause deficits, which cause inflation, which in turn cuts the amount of equipment and manpower the defense dollar can buy. The process is circular and self-defeating.

Every addition to defense expenditures does not automatically increase military security. Because security is based upon moral and economic, as well as purely military strength, a point can be reached at which additional funds for arms, far from bolstering security, weaken it.9

But I also rejected advice which urged that I submit a balanced budget for the next fiscal year, no matter how compelling the reasons for additional expenditures. In November, for example, I received a letter on this subject from George Humphrey:

9 Moreover, when a science and engineering program is going ahead flat-out at 100 per cent capacity, more money cannot speed it up, any more than all the water in the Mississippi can speed the growth of a tree. When Dr. Wernher von Braun was asked a question about increasing defense spending, for example, he replied that “some additional funds for basic and applied research and development for future growth potential would help tremendously in the long run.” But he also said, by and large, our five key ballistic missile programs could not be speeded up appreciably by an increase in funds. “... We don’t need excessive amounts of extra money— we certainly don’t have to double our present missile budget.”
One approach to increased security was to pool brainpower. Our defenses were cooperative—why could not our research be cooperative also? When Prime Minister Macmillan came to Washington in late October, he and I announced that our representatives to NATO would urge an enlarged Atlantic effort in scientific research and development. I would ask Congress to amend the Atomic Energy Act to permit close collaboration in atomic research between our scientists and engineers and those of the Great Britain and other friendly countries.

Our atomic energy laws had been written when we thought we had a monopoly in this branch of science. Now, when many of our former secrets were known to our enemies, it made no sense to keep them from our friends. I wanted the law changed, and I told my principal associates, as they studied the prospect of sharing nuclear information with others, "Don't be too lawyer-like. A great alliance requires, above all, faith and trust on both sides."

Harold and I agreed that in the absence of the disarmament we both sought there should be increased assurance that nuclear weapons would in fact be available for the common security when needed. By the end of the month, the Defense Department was developing a plan for a NATO stockpile of atomic weapons.

Then on November 2 the world received word that the Soviet Union had launched its second satellite—an eleven-hundred-pound vehicle with an air-conditioned compartment containing a dog, named "Laika" or "Limonchek" ("Little Lemon"). This time there was no hysteria. By a strange but compassionate turn, public opinion seemed to resent the sending of a dog to certain death—a resentment that the Soviet propaganda tried to assuage, after its death, by announcing that it had been comfortable to the end.

The public, however, became bewildered and upset when word got out that a far from optimistic secret report had been made to me in the National Security Council. The report was prepared by a group of private citizens who operated under a lengthy title: The Security Resources Panel of the Office of Defense Mobilization Science Advisory Committee.
When my associates and I considered and discussed the report, I remarked, "It will be interesting to find out how long it can be kept secret." A roughly accurate account soon appeared in a local publication.

In the weeks following, opposition politicians clamored for the release of the official text. Senator Lyndon Johnson asked for a version with classified information deleted. In a subsequent meeting, those who supported publication argued that rumor respecting the report was painting a much worse picture than the report itself justified; its release, they argued, would therefore have a calming effect. Moreover, as Vice President Nixon observed, "Most of the recommendations are already in the papers anyway. Making the document public should give us no great problem."

A second group, however, argued that release of the report would have "catastrophic results." It would violate a long-standing practice, they said, never to make public a report made to the President in the confidence of the National Security Council. What our political opponents wanted, this group contended, was the set of tables estimating the relative strength of the United States and the Soviet Union year by year, over the next several years.

I did not agree with all of the panel's hypothetical figures; moreover, the panel had failed to take into account certain vital information and other considerations. For example, I reminded Mr. Gaither and his associates that our overseas bases gave us a great capacity for dispersion and that the Free World, holding the periphery, could pose a threat to the Soviet Union from a multitude of points. I recognized that any good, critically minded panel could, by concentrating on one aspect of a total situation, find that there is more to do. The reactions of the members of the National Security Council were roughly the same as my own: the Gaither Report contained certain useful distillations of data and some interesting suggestions, but the entire report could not be accepted as a master blueprint for action. The President, unlike a panel which concentrates on a single problem, must always strive to see the totality of the national and international situation. He must take into account conflicting purposes, responding to legitimate needs but assigning priorities and keeping plans and costs within bounds. I could see no national advantage in broadcasting the opinions and suppositions in the report with the attendant risks to security.

Foster Dulles expressed similar objections. The panel, he observed, had confined itself to military problems. "But the international struggle," he said, "is not just military. The Soviet Union made its greatest gains—its greatest seizures of territory and people—in 1945–50, when it had the ravages of war to repair and when only the United States had the

10 It had been established in April of 1957 under the chairmanship of Mr. H. Rowan, Gaither, Jr., then Chairman of the Board of the Ford Foundation. In the course of its study, Mr. Gaither had become ill, and Robert C. Sprague, chairman of the Sprague Electric Company, became the panel's director, with William C. Foster of the Olin Mathieson Chemical Corporation as co-director. Robert Lovett, John J.McCloy, Frank Stanton, Jerome B. Wiesner, and others served on the board.
atomic bomb.” He felt that if the United States should embark on a massive shelter program to protect itself, despite the fact that our allies could not afford such protection, we could “just write off our friends in Europe.” Furthermore, he said, the United States should not overdevote resources to defense, only to lose the world economic competition.

In spite of all the fury and conflicting advice, the decision on releasing the text was quite easy to make. The answer was “no.” I informed Senator Lyndon Johnson of my decision, pointing out that “throughout our history the President has withheld confidential advisory opinions and information whenever he found that its disclosure would be inimical to the nation’s security. . . . Only by preserving the confidential nature of such advice is it possible to assemble such [advisory] groups or for the President to avail himself of such advice.”

As I continued to consider the report, I noted it remarked on the $38 billion ceiling on defense expenditures. I reminded the members of the panel that I had urgently recommended a figure of $39.5 billion, but the Congress had seen fit to reduce it by $1.5 billion.

The problem remained, however, of what to do about the panel’s specific recommendations. I recognized they were sincerely made. We would study them earnestly, taking up proposals one by one, and decide whether to accept, modify, or reject them. Given the atmosphere of the time, “We must neither panic nor become complacent,” I told my associates. “We should decide what needs to be done, and do it—avoiding extremes.”

The problem was not unfamiliar. Our security depended on a set of associated and difficult objectives: to maintain a defense posture of unparalleled magnitude and yet to do so without a breakdown of the American economy.

“We must get people to understand that we confront a tough problem,” I said, “but one that we can lick.” We could not turn the nation into a garrison state.

Accordingly, in the early months of 1958, the Department of Defense, the Department of State, and other security agencies thoroughly explored the panel’s recommendations. Some of them we accepted. (I was personally interested most in the measures to put more SAC bombers on an alert status and to disperse our SAC bases.) Other recommendations were accepted with modifications, such as the recommendation to increase the number of ICBMs by the end of fiscal ’63. One recom-

A massive program for fallout shelters had often been considered, but the panel’s recommendations brought it up again for lively debate. Former Governor Leo A. Hoegh of Iowa, now Civil Defense Administrator, argued that $22.5 billion for fallout shelters would be a good investment—one which might save fifty million American lives. But Foster Dulles disagreed, emphatically. “If a wave of a hand could create those shelters,” he said, “we’d of course be better off with them than without them. But it’s hard to sustain simultaneously an offensive and defensive mood in a population. For our security, we have been relying above all on our capacity for retaliation. From this policy we should not deviate now. To do so would imply we are turning to a ‘fortress America’ concept.”

“You are a militant Presbyterian, aren’t you?” I remarked. A little laughter around the table helped to lighten the air.

I decided that we would not embark on an all-out shelter program. But on August 8, 1958, I signed legislation, advocated by the administration for more than two years, to give the federal government and the states a joint responsibility for civil defense and to authorize federal financial help for state civil defense projects.

In the final result the Gaither Report was useful; it acted as a gadfly on any in the administration given to complacency, and it listed a number of facts, conclusions, and opinions that provided a checklist for searching examination.

On the morning of November 7 newspapers carried Khrushchev’s boastful prediction of a Soviet victory over the United States in the building of heavy industry and the production of consumer goods. That evening, from my office in the White House, I delivered the first of a series of nationwide talks on science and defense. This was no exercise in positive thinking based on hopes alone. We had much about which to be confident. The talk bristled with specifics.

The United States, I said, could practically annihilate the war-making capability of any other nation. Ever since our adoption of the so-called “New Look” in military preparation, and especially after the 1954–55 reports of our scientific panels, soaring imagination, skill, and energy had gone into our missile programs. American submarines were carrying missiles with nuclear warheads. One of our submarines had cruised under the Arctic ice cap for more than five days. We had dispersed our stock of nuclear weapons to assure that, if we were attacked, ample quantities would be available for instant retaliation.
"We are well ahead of the Soviets," I said, "in the nuclear field both in quantity and in quality. We intend to stay ahead."

Already we could fire large ballistic missiles more than a thousand miles; test missiles had traveled successfully more than thirty-five hundred miles, I said. Our many forward positions, ringing the Soviet Union, made an intermediate-range missile, for some purposes, as good as an intercontinental missile.

We had a continental warning system "reaching from far out in the Pacific around the northern edge of this continent and across the Atlantic approaches . . . a complex system of early warning radars, communication lines, electronic computers, supersonic aircraft, and ground-to-air missiles, some with atomic warheads." And I spoke of the strong ground and naval forces which we and our allies had stationed abroad.

There were the facts—as many as could be disclosed—as hard and clearly as I could state them. On them rested this conclusion: "It is my conviction, supported by trusted scientific and military advisers, that, although the Soviets are quite likely ahead in some missile and special areas, and are obviously ahead of us in satellite development, as of today the over-all military strength of the Free World is distinctly greater than that of the Communist countries."

But such facts, formidable as they were, were no reason for self-congratulation. Unless we moved further, I said, we could fall behind. As spurs to action I announced a number of specific decisions, among them:

1) I was appointing Dr. James R. Killian, president of the Massachusetts Institute of Technology, as Special Assistant to the President for Science and Technology, a new post. He would be aided by a staff of scientists and by an advisory group—the existing Science Advisory Committee of the Office of Defense Mobilization, now enlarged, reorganized, and elevated to the White House.12

2) I had directed Secretary of Defense Neil McElroy "to make certain that the Guided Missile Director is clothed with all the authority that the Secretary himself possesses" in the field of missile development, so that no administrative or interservice block would occur.

I had made as strong a case for confidence and sane direction as I could. I was hampered, of course, by the fact that I could not reveal secrets which in themselves would have reassured our people. For example, shortly before this address Foster Dulles, in a meeting with Allen Dulles, General Goodpaster, and me, had asked, "Should we disclose tonight that the United States has the capability of photographing the Soviet Union from very high altitudes without interference?"

Reluctantly, I decided I could not make such a revelation. It was not to become public for another two and a half years when an airplane called the U-2 fell in Soviet territory.

Six days later I flew to Oklahoma City and spoke again of deterrent and defense. I included short discussions on scientific education and greater concentration on research. We had tough choices to make, I said. Some civilian programs were desirable but not essential. Some savings would be squeezed out through the wringer. "And pressure groups will wail in anguish," I said. But we would not sacrifice security to worship a balanced budget. We would never be an aggressor—we wanted adequate security—we wanted no more than adequacy. But we would accept nothing less.
This was a period of anxiety. Sputnik had revealed the psychological vulnerability of our people. The Communists were steadily fomenting trouble and rattling sabers; our economy was sputtering somewhat, and the ceaseless and usually healthy self-criticism in which we of the United States indulged had brought a measure of genuine self-doubt. Added to these and other factors was the failure of our first satellite launching attempt in the full glare of publicity, and the alleged missile "gaps" which political observers claimed they had detected. There was ample stimulus for public uncertainty.

The Soviet satellites were a genuine technological triumph, but this was exceeded by their propaganda value. To uninformed peoples in the world, Soviet success in one area led to the belief that Soviet Communism was surging ahead in all types of activity.

One beneficial effect to us was that the Soviet achievement jarred us out of what might have been a gradually solidifying complacency in technology. It caused us to give increased attention to scientific education in this country and ultimately to all phases of education.

Their most harmful effects were to cause those people who had manifold reasons to be proud to be temporarily fearful, and to add fuel to the fire of demand for larger appropriations as the answer to everything.

The older I grow, the more I come to respect balance—not only in budgets but in people.

As we began to overcome the psychological crisis, I felt a degree of satisfaction. I could not know then that Sputnik would color events of the next three years, including the 1960 election, or that the third confidence speech on which I was working would never be delivered. Another blow to come—a personal one, just one week away—involved a sudden illness, my third in three years. As I wrote a friend on November 18:

"Since July 25th of 1956, when Nasser announced the nationalization of the Suez, I cannot remember a day that has not brought its major or minor crisis." Crisis had now become "normalcy."

CHAPTER IX

A Drastic Personal Test

It is part of the cure to wish to be cured.
—Seneca

AFTER my last office engagement on the morning of Monday, November 25, I went to Washington National Airport to extend a ceremonial greeting to the Moroccan King, Mohammed V, who was arriving for a state visit. When we had accepted the traditional salutes, reviewed the troops, and delivered the customary expressions of welcome and response, we rode together through the noontime crowds to the Guest House (formerly Blair House) where the King was to reside. There we parted to meet again at dinner that evening. I went back to the White House for a short midday rest.

Following the rest and a light lunch, I walked to my office to resume work for the afternoon.

At my desk I found papers waiting for signature. As I picked up a pen to begin, I experienced a strange although not alarming feeling of dizziness. Since the sensation lasted only a moment, I reached for another paper. Suddenly I became frustrated. It was difficult for me to take hold of the first paper on the pile. This finally accomplished, I found that the words on it seemed literally to run off the top of the page.

Now more than a little bewildered, I dropped the pen. Failing in two or three attempts to pick it up, I decided to get to my feet, and at once I found I had to catch hold of my chair for stability.

I sat down quickly and rang for my secretary. As Mrs. Whitman came to my desk I tried to explain my difficulty—and then came another puzzling experience: I could not express what I wanted to say. Words—but not the ones I wanted—came to my tongue. It was impossible for me to express any coherent thought whatsoever. I began to feel truly helpless.

Actually my performance must have been worse than I suspected, for