

## Document D

[For the Executive Committee of the National Security Council]

DEPARTMENT OF STATE

Deputy Under Secretary  
G/PM

TOP SECRET [Declassified November 20, 1981]

MEMORANDUM

October 27, 1962

SUBJECT: The Military Significance of the Soviet Missile Bases in Cuba

1. The presence of 24 1,020 n.m. MRBM launchers and 12 or 16 2,200 n.m. IRBM launchers in Cuba provides a significant accretion to Soviet strategic capabilities for striking the continental United States. In view of the relatively limited numbers of Soviet operational ICBM launchers—at present an estimated 75—the missiles in the Caribbean will increase the first-strike missile salvo which the USSR could place on targets in the continental United States by over 40 percent.

2. At present, 20 of the 24 MRBM launchers are believed to be fully operational, and the remaining four will be within a few days. The first 4 IRBM launchers will probably reach emergency capability by November 15, and full operational status on December 1. The 8 other confirmed IRBM launchers will probably reach emergency capability by December 1, and be fully operational by December 15. An additional four IRBM launchers will probably be completed, but it is possible that the quarantine has stopped them. The current threat is thus 24 MRBMs; by December it will—unless construction is effectively stopped within a month—be augmented by at least 12 and up to 16 IRBMs. Each launcher is assumed to have the standard two missiles, allowing one reload (for refire in 4–6 hours). In at least one of the nine bases more missiles than launchers have been positively confirmed, and in general the number of identified MRBM missiles at least is sufficient to man all the launchers for an initial strike. Earth-covered bunkers suitable for storage or checkout of nuclear weapons are under rapid construction, and at least two of them now appear to be complete. There is one such bunker for each pair of launch sites.

3. The strategic significance of the Cuban missile complex is due not only to the substantial quantitative increase in megatons deliverable in a surprise first strike, but also by their effect on the US deterrent striking force. Approximately 40 percent of the SAC bomber force is now located

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on air bases within range of Soviet MRBMs in Cuba, and almost all of it is in range of the IRBMs. If the present base complex in Cuba is completed late in 1962, and taking into account the estimated Soviet ICBM force for the end of 1962, a Soviet attack without warning could destroy an appreciably larger proportion of over-all United States strategic capability than it could if the Cuban complex were not included. The number of US weapons surviving and ready to retaliate on targets in the USSR would be decreased by about 30 percent, and would thus leave only about 15 percent of the number in our pre-attack force. This force could still cause considerable destruction in a US retaliatory strike, the Soviets could not rely on the degree of surprise assumed in the above calculation, and it is very unlikely that the Soviets would be tempted toward resort to war by the change in the military balance. Nonetheless, this represents a serious dilution of US strategic deterrent capability.

4. The reasons for the strategic significance of the Cuban bases are: (a) the size of the Soviet ICBM force does *not* allow coverage of SAC bomber bases and soft ICBM sites; the addition of the MRBM/IRBM force already on the island of Cuba *does* permit coverage of *all* such points, thus bringing under fire an *additional* 26 US ICBMs and over 100 B-47s; (b) the Cuban based missile systems have high reliability (80 percent), accuracy (1 to 1.5 n.m. CEP), and warhead yield (up to 3 megatons each for the MRBMs, and up to 5 megatons for the IRBMs); (c) the United States does not have BMEWS or other early warning radar on the southern approaches; and (d) as taken into account earlier, many SAC bomber bases are concentrated in the South and Midwest.

5. All of the discussion above is concerned with the missile complex now being completed in Cuba. There is no reason why the Soviets could not, if unimpeded by an effective quarantine, literally multiply the number of launchers to a force large enough to threaten the entire strategic balance of power. The Soviets have deployed over 500 MRBMs and IRBMs on their own territory, and the lesser cost compared to ICBMs would make a major expansion in Cuba very attractive.

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*Commentary on Document D*  
*A Retrospective Evaluation*  
*of the Soviet Missiles in Cuba in 1962*

It is clear in retrospect that the Soviet motivation for deploying medium-range missiles in Cuba did not arise from a belief that growing Soviet strength could be exploited, but from a perceived need to offset growing American strength and the prospect that it would outpace Soviet strategic growth over at least the following five years. In 1962 the American intelligence and policy community did not fully appreciate this fact because it tended to hedge uncertainty about future Soviet military programs by overestimating them; the Soviet leaders knew better. And the Soviet leaders, while probably also overestimating American programs, did not need to do so in order to see their own strategic position worsening. In one sense, the United States failed to anticipate the Soviet action in Cuba because it failed to recognize how desperate the Soviet plight seemed in Moscow.

One of the considerations in American decisions during the Cuban missile crisis in October 1962 was an evaluation of the military significance of the Soviet deployment in Cuba of medium- and intermediate-range ballistic missiles (MRBMs and IRBMs). It is well known that Secretary of Defense Robert McNamara said at the outset of the crisis that the military significance of the Soviet deployment was not unmanageable and could be offset without having to remove the missiles—whether by compelling Soviet withdrawal or, if that could not be done, by American military action. Not all agreed with that judgment, but the matter was quickly set aside because of President John F. Kennedy's assessment of the *political* consequences, both international and domestic, if the United States were to acquiesce in the Soviet deployment in Cuba. McNamara did not question that judgment, and he did not deny that there was military significance to the deployment. How the deployment would actually affect the military balance, therefore, did not become an issue of contention. Indeed, it was not even fully analyzed in the hectic week of initial decisions. But it

remained a factor in subsequent decisions throughout the thirteen days of the confrontation until Khrushchev agreed to dismantle and remove the missile systems.

To this day in the voluminous published commentary on the Cuban missile crisis there has been little assessment of the *military* significance of the Soviet missiles. Many—although not all—analysts have discounted that factor far too much, not going beyond reference to McNamara's judgment or comments on the overall force levels of the two sides. It is, therefore, of interest to see a now declassified Top Secret analysis made at the climax of the crisis.

On October 26, 1962, I was asked to prepare for the Executive Committee of the National Security Council (Ex Comm) an analysis of the military significance of the Soviet missiles in Cuba. On the following day I submitted the requested memorandum, reproduced here as document D.<sup>1</sup> Two recent accounts refer to this memorandum, suggesting that its effect, and perhaps that of most analyses in such cases, was to reinforce views already held. McGeorge Bundy, in his excellent memoir-history, notes that the military analysis failed to alter the judgment of the president, McNamara, himself, or others who were not originally influenced by the possible impact of the Soviet-missile deployment on the strategic balance, in contrast to Nitze, Dillon, McCone, and the Joint Chiefs.<sup>2</sup> In a

1. I had been in constant touch with colleagues working on the crisis in the Pentagon and the Central Intelligence Agency and quickly prepared the brief analysis. My recollection is that I did not formally "clear" the memorandum with anyone (in those remarkable and heady days, it was possible to prepare such a memorandum and submit it to the Ex Comm within hours with no lateral "clearances"), but that I did informally clear it with Harry Rowen, deputy assistant secretary, International Security Affairs (ISA), in the Department of Defense, and Roger Hilsman, director of the Bureau of Research and Intelligence (INR) in the Department of State. I did not clear the paper with the CIA because of time pressures, but the current intelligence on the status of the Soviet missile deployment in Cuba was provided by the CIA, as were the agreed intelligence data concerning Soviet strategic forces and the SS-4 and SS-5 systems and capabilities. The information on American deployments was provided by the ISA, based on an analysis prepared by William Kaufmann, a consultant to the ISA, and Robert Trinkle of Systems Analysis.

2. McGeorge Bundy, *Danger and Survival: Choices About the Bomb in the First Fifty Years* (New York: Random House, 1988), pp. 451–52.

recent interview, Paul Nitze expressed this other point of view very clearly. After stating that he considered McNamara and Bundy to have been "dead wrong," in October 1962 and now, in their assessment of the effect on the strategic balance, he said, "I think it mattered a great deal to the Soviets, and I thought it properly mattered a great deal to the Soviets. And it mattered a great deal to me. . . . The extraordinary thing was that the one person who agreed with me was Garthoff. At that time he wrote a memorandum which supported my conclusion. He went through the numbers and the strategic significance of these IRBMs and MRBMs and he came out with the same conclusion I'd come to. *Welch* [interviewer]: The one person apart from [General] Max [Maxwell] Taylor [chairman of the Joint Chiefs of Staff], you mean. *Nitze*: Well, Max Taylor is a great man, but I never thought Max was that good an analyst. Ray was then working for the CIA in an analytical function. It's a different kind of a way of looking at things."<sup>3</sup> Nitze had in mind that until September 1961 I had for four years been a senior intelligence analyst in the Office of National Estimates at the CIA.

The information in my memorandum is substantially self-explanatory. Although most of the information in it was correct, later additional information has modified the picture in a few respects.

First, the prevailing national intelligence estimate of seventy-five operational intercontinental ballistic missile (ICBM) launchers in the Soviet Union (revised in October to 60-65) was still high. U.S. intelligence later concluded that the Soviet ICBM force at that time numbered forty-four operational launchers (plus six test and training launchers that could have been used in an emergency). General Volkogonov, in January 1989, stated that the operational Soviet ICBM force in October 1962 was only "about twenty" ICBM launchers. The SS-7 ICBMs then being deployed were in groups of ten. It is possible that the United States evaluated two groups as "operational" on the basis of observed external comple-

3. James G. Blight and David A. Welch, *On the Brink: Americans and Soviets Reexamine the Cuban Missile Crisis* (New York: Hill and Wang, 1989), p. 150. Nitze found it "extraordinary" that my analysis corresponded to his because he knew that my policy position was more dovish.

tion, whereas they may not have been, explaining a discrepancy between twenty-four and forty-four (the four being the deployed SS-6 launchers, covered by Volkogonov's "about"). A correction to forty-four or to twenty-four reinforces the conclusion of the paper on the significance of the MRBMs and IRBMs in Cuba. Thus, completion of the deployment then under way, forty launchers, would in fact have nearly doubled or tripled the first-strike land-based missile salvo. In both cases, the ninety-seven Soviet short-range submarine-launched ballistic missiles (SLBMs) were not counted, because none was at that time deployed within range of the United States nor could they quickly have been brought here.

Critics might charge that even an increase that great in the Soviet first-strike missile salvo would not have altered the overall strategic balance. That, of course, was McNamara's point from the outset. As shown in table 1, the lineup (one cannot call it a "balance") of operational strategic forces at the end of October 1962 heavily favored the United States. Moreover, in quality the United States had a further lead (for example, all the Soviet SLBMs were short range and required surfacing of the submarine to fire, and two-thirds were on noisy, easily tracked diesel-powered submarines).

Nonetheless, the memorandum shows that the Soviet Union's move to increase its strategic capabilities by the Cuban deployment would in fact have posed "an appreciably heightened threat to the US strategic retaliatory forces" and hence to our deterrent capability. Thus a military concern existed in addition to the concern over Soviet intentions prompted by such a sudden and surreptitious gambit. Even if with hindsight these concerns can be considered excessive, they did not so appear at the time.

Second, the information in the memorandum represents the maximum extent of operational deployment before the resolution of the crisis on October 28.

Third, the United States did not know on October 27-28 the precise number of missiles in Cuba. We had identified thirty-three SS-4 missiles, but we knew that there might be more and that there might also be some SS-5 missiles. (Some supporting equipment unique to the SS-5 system had been identified, in addition to the distinctive SS-5 launchers.) In fact, the Soviet leaders then in-

Table 1. *U.S. and Soviet Strategic Forces, October 31, 1962*

Weapon system	United States		Soviet Union	
ICBM launchers <sup>a</sup>	172	(+7)	24-44	(+6)
SLBM launchers <sup>b</sup>	112	(+32)	0	(+97)
MRBM and IRBM launchers <sup>c</sup>	...	(105)	...	(24 in Cuba)
Strategic bombers <sup>d</sup>	1,450	...	155	(+)
Warheads (salvo) <sup>e</sup>	± 3,000	...	± 250	...

a. The figures in parentheses are additional test and training launchers also available for use. The 24-44 operational Soviet ICBMs were all liquid-filled missiles requiring several hours of preparation for firing.

In mid-October in response to the crisis the United States began to expedite completion of Atlas and Titan ICBM launchers then under reconstruction. While this effort could not of course affect the American force level more than marginally during the crisis, it did raise the number of operational American ICBM launchers from 112 in early October to 210 by January 30, 1963: 126 Atlas, 54 Titan I, and 30 Minuteman I (this concluded the Atlas deployment; 54 additional Titan II launchers under construction were completed within a few months; the Minuteman I deployment continued until early 1967). Incidentally, this expedited, or "crash," deployment resulted in lowered quality standards and reduced reliability, although in any event the Atlas and Titan I forces were phased out within a few years. By contrast, the Soviet Union by January 1963 had still not reached the 75 ICBM launchers earlier estimated for mid-1962 and only reached about 100 by mid-1963.

b. The U.S. figures conservatively assume seven of the nine operational U.S. Navy Polaris submarines with 112 of the 144 missiles would have been immediately available. The 97 relatively short-range ballistic missiles on thirty-five Soviet diesel and nuclear submarines were all in Soviet waters and unavailable for early commitment, in addition to being highly vulnerable.

c. The 60 Thor missiles in Great Britain were subject to British control, and the 45 Jupiters in Italy (30) and Turkey (15) were similarly subject to Italian and Turkish assent. These 105 missiles were, therefore, not counted in the Strategic Air Command (SAC) order of battle, although they were conditionally available for the Single Integrated Operational Plan (SIOP). The United States did not seek to alert these forces, and indeed on October 27 President Kennedy instructed that the Jupiters in Turkey be kept nonoperational.

On October 28, the last of the 24 SS-4 launchers in Cuba was counted as "operational" by the United States, with the assumption that nuclear warheads were available.

d. Strategic bombers are here defined as heavy bombers or as medium bombers with basing and refueling support for intercontinental strikes.

The SAC ready-strike bomber force rose from 652 on October 19, 1962, to 1,436 on October 24 with Defense Condition (DEFCON) 2, and 1,479 on November 4. It was supported by 1,003 aerial tankers. Between October 23 and November 26 SAC flew 2,511 operational sorties carrying 8,101 nuclear weapons on board.

The Soviet Long Range Aviation force had a total inventory of 155 Bison and Bear heavy bombers, and a large number of Badger and Bull medium bombers. The bomber force was not, however, supported by tankers for air refueling, and even the heavy bombers were dependent on limited Arctic advance bases for round-trip missions against North America. The force did not go on high-readiness under the nominal Soviet alert.

e. The SAC bomber and ICBM ready force grew from 1,433 warheads on October 19 to a peak of 2,952 on November 4. To this must be added the U.S. Navy Polaris force with 144 warheads on nine submarines.

These figures do not indicate the substantial nuclear delivery capability of other U.S. forces: strike aircraft on the navy's carrier force and in the European and Far Eastern theater commands.

It is difficult to estimate the number of Soviet warheads that were available for a strike, since the forces were not alerted and the time to generate the force would undoubtedly have had to be limited. It could have varied from less than 100 to several hundred.

In both cases, the figures represent potential "salvo" force delivery in a *first* strike, with no account for missile refire or bomber restrike capabilities. Warhead stockpiles were much larger, at least in the case of the United States, and not the limiting factor in the Soviet case. Second-strike capabilities would have been reduced in the case of the United States, and severely reduced in the case of the Soviet Union.

formed us that they had forty-two missiles in Cuba, and assisted us in observing the withdrawal of the forty-two missiles, all SS-4s.<sup>4</sup> No SS-4s, SS-5s, or other MRBMs or IRBMs have ever been seen in Cuba in the twenty-five years since, and there is no reason to doubt that these forty-two missiles were the total number there. The deployment under way would have brought the number to forty-eight SS-4 missiles and thirty-two SS-5 missiles—providing the standard single reload for each of the forty launchers, as was correctly estimated. Delivery of the last six SS-4 missiles and all thirty-two SS-5 missiles to Cuba was stopped by the "quarantine" blockade; five of the Soviet ships then en route, which immediately stopped and soon returned to Soviet ports, were identified by intelligence analysts as probably carrying some of the SS-5 missiles and the remaining SS-4 missiles.

No nuclear warheads were ever identified in Cuba, but there was evidence that some were en route from the Soviet Union when the quarantine began and interdicted them. As noted in the memorandum, standard Soviet nuclear weapons storage facilities were built at the missile sites (one for each eight launchers).

The reference to the nine "bases" for missiles should better have read nine "groups" (of four launchers each). The fourth group of SS-5 IRBM launchers, the tenth group in all, was clearly planned and in fact construction work had been started, but had not yet proceeded far enough to meet the intelligence analysts' criteria as "confirmed"—hence the reference to "12 or 16" SS-5 launchers. All forty MRBM and IRBM launchers were located at four complexes or bases, each with its own Soviet ground combat team to provide local security.

In short, the assessment erred in assuming that some of the SS-5 missiles might already be in Cuba and in assuming that the nuclear warheads might be there. These were, however, the only prudent assumptions to have made under the circumstances.

Fourth, it is worth noting that in 1962 an accuracy of 1.0 to 1.5

4. Some press reports at the time, mentioned in some later accounts, alleged that we had counted only thirty-seven outgoing missiles. These reports were incorrect and were based on the count on November 9, rather than the final count on November 10, when the last shipment departed.

nautical miles (for a very high yield missile payload) was considered good, and was indeed a threat to our early soft Atlas and Titan missile launchers and bomber bases, to say nothing of cities.

Finally, if the crisis had ended with the United States conceding a Soviet right to unlimited deployment of missiles in Cuba, we would have entered a period of increased strategic instability. The United States would undoubtedly have replied with an augmented airborne bomber alert force and probably an even more rapid program for submarine missile deployment. If a compromise resolution had allowed some twenty-four to forty Soviet missile launchers to remain, but no more, the period of American strategic force vulnerability would have been much briefer than under unlimited deployment, though it is difficult to estimate the psychological effects both of the missile capability and of the American retreat to its acceptance.

One other comment should be made. Some revisionist analysts have implied or charged that in 1962 the administration intentionally cultivated a false impression that the missile launchers were imminently to become operational and thus required urgent and extreme steps. This charge is not well founded. As indicated in the memorandum, by October 27 twenty MRBM launchers were "believed to be fully operational" (by October 28 all twenty-four) and the even more threatening IRBMs were expected to reach emergency operational status in two weeks. We now know that there were no IRBM missiles yet in Cuba, and the SS-4 MRBMs may have lacked nuclear warheads, owing to the timing and effectiveness of the quarantine, but those facts were not known and could not prudently have been assumed at the time. Official concerns were genuine and were justified, even if they were erroneous; expressions of these concerns were not knowingly made alarmist.

This discussion has not addressed the question of whether American strategic superiority, or American conventional superiority in the Caribbean, was predominant in influencing the Soviet leadership to withdraw the missiles. I would not disagree with the judgment, affirmed by several of the principal decisionmakers at the time, that "the decisive military element in the resolution of

the crisis was our clearly available and applicable superiority in conventional weapons within the area of the crisis."<sup>5</sup> Nevertheless, the strategic balance undoubtedly did persuade the Soviet leaders not to counter in some other situation where they had decisive conventional superiority, such as Berlin. Both the strategic and conventional balances no doubt played a part. But even more decisive, in my judgment, was the balance of resolve, which also favored the United States. The Soviet leaders no doubt believed their action to have been justified, but they also knew they were taking the initiative in seeking to change the status quo. In that important sense they bore the responsibility for not permitting the situation to get out of hand as a result of any miscalculation of the American reaction.

For the American policymakers who dealt with the Cuban missile crisis in 1962, political considerations were dominant over military ones. Nevertheless, both political and military considerations reinforced their policy of resolve not to permit the deployment to remain.

5. Dean Rusk and others, "The Lessons of the Cuban Missile Crisis," *Time*, September 27, 1982, p. 85; from a joint statement by former Secretary of State Dean Rusk, Secretary of Defense Robert McNamara, Under Secretary of State George W. Ball, Deputy Secretary of Defense Roswell L. Gilpatric, Special Counsel to the President Theodore Sorensen, and Special Assistant to the President for National Security Affairs McGeorge Bundy.