

SALT I: THE MORNING AFTER

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"We are in no position to know whether a given [arms control] plan enhances security, detracts from it, or is simply irrelevant."

The above was written by Henry Kissinger in 1960.** Today, Dr. Kissinger says that our security is enhanced by the two arms control agreements signed in Moscow. It is worth analyzing the Agreements to attempt to determine whether he is right. This paper will discuss the implications of the terms of the Antiballistic Missile (ABM) Treaty and the Interim Agreement on Strategic Offensive Arms; it will not consider questions of possible evasion, as distinguished from avoidance.

The Agreements are asserted in the first instance to enhance security because they have halted the nuclear arms race. One may question the evidence for the existence of an arms race in recent years. In terms of annual expenditures, the Soviet strategic nuclear forces have been increasing somewhat, whereas the United States, after a substantial decline in the mid-sixties, has been about constant. In numbers of missiles, the Soviet forces have been growing steadily and rapidly since the mid-sixties, and the U.S. totals have remained constant. In terms of throw-weight and nuclear megatonnage carried, the Soviet missile forces have been growing rapidly. Our missile throw-weight has been growing more slowly with the conversion of Polaris missiles to Poseidons and Minuteman Is to IIIs, and total megatonnage has actually declined as the MIRVs (multiple independently-

*The author is a Senior Staff Member of The Rand Corporation. However, these remarks do not reflect The Rand Corporation's views, nor are they based on the results of Rand research; they are solely the views of the author.

***The Necessity for Choice*, Harper and Brothers, New York, 1960, p. 4. This is "out of context"; the preceding sentence read: "Because we lack a strategic doctrine and a coherent military policy, it is inevitable that our proposals on arms control are fitful." The main burden of this paper will be that our strategic doctrine is still sufficiently unclear to render the security advantages of the SALT agreements highly uncertain.

targeted reentry vehicles) are introduced in Poseidon and MM III, with more warheads but much smaller ones, even when added together. In numbers of warheads has the American missile arsenal been growing rapidly. In contrast, numbers of Soviet warheads have been growing only as rapidly as their numbers of missiles, though they now appear to be on the threshold of multiplying the numbers of warheads in at least some of their missiles by the introduction of MRVs (multiple reentry vehicles) and MIRVs.

The arms race argument holds that the growing Soviet programs have been halted and that the Agreements have not cost the United States anything because we had no ongoing programs in offensive missiles and the Congress was not likely to have approved any in the near future. The ABM Treaty did result in the stopping of work on the Malmstrom Safeguard deployment, though it remains to be seen whether a Washington, or NCA (National Command Authority) deployment will be substituted, and additional sites had been planned. This is, of course, a short-run argument, since no one can say what programs we might eventually have adopted to meet increasing Soviet programs, but the Administration argument is that by stopping the Soviet programs and leaving us in the status quo, there has been a net gain over what would otherwise have happened in the arms race.

The Administration also says that we have stopped the arms race at a position of parity with the Soviet Union. This is in itself a curious assertion, since the Secretary of State said in 1969 that the Soviets had achieved parity and that this made the Strategic Arms Limitation Talks (SALT) possible. At the same time, as has been certified in the President's annual Foreign Policy Statements in 1970 and 1972, since the Talks commenced the Soviet missile forces have approximately doubled in numbers. This does not mean that the Soviets have achieved superiority, because their advantage in missile numbers, megatonnage and throw-weight are offset by the two-to-one U.S. advantage in total numbers of warheads, which Dr. Kissinger indicated in the Moscow "backgrounders" would rise to three-to-one during the five-year life of the Interim Agreement. In addition, we have essentially a three-to-one advantage in heavy bombers, which are not covered in the agreement (but which apparently are included in calculating the 5700 U.S. versus 2500 Soviet warheads said to be currently in the forces). No mention was made of the large numbers of Soviet medium bombers and the possibility of

their use with refueling or of their several hundred submarine launched cruise missiles (SLCMs), nor was the very high level of Soviet air defenses noted. Our "forward-based" systems (FBS) -- mainly fighter-bomber aircraft on carriers and forward bases, which can reach the Soviet Union -- are also not covered, but neither are the Soviet medium- and intermediate-range missiles, plus aircraft, which can both attack our FBS and devastate our Western European allies.

Finally, it is argued that an imbalance does not matter anyway, since both sides have the capacity to retaliate and therefore to deter. We will come back to this question of the adequacy of our deterrence under the Interim Agreement. First, it is worth examining the durability of our present and alleged future superiority in numbers of warheads. Under current programs, assuming the completion of the MM III deployment and the conversion of 31 submarines from Polaris to Poseidon missiles, we will have about 7500 warheads in our ICBM and SLBM forces. Bombers are not included in this calculation since they are not covered by the Interim Agreement. (We will come back to the matter of the bombers.) Dr. Kissinger apparently assumed that the Soviets would have around 3000 warheads in their missile forces by 1977, assuming the numbers of missiles permitted under the agreement and presumably the possible deployment of the "triplet" MRVs in the SS-9.

But the Soviet ICBM force appears, according to Senator Jackson, to have about four times the throw-weight, or payload capacity, of ours. (SLBM missile sizes are not controlled under the Interim Agreement, although significant changes in these sizes would require entirely new systems, deployment of which would presumably take longer than the duration of the Interim Agreement.) It has been asserted for some time that the Soviets do not have a MIRV capability, but Secretary Laird announced on June 8 that we have observed Soviet MIRV testing and that they have a two-year lag behind us in MIRV technology. If we postulate, conservatively, I think, six MIRVs in each of the 300-odd SS-9s, three in the SS-11s and 13s, and only single warheads in the SLBMs, they could have about 6500 warheads. The newly reported version of the SS-9, let us call it the Super-9, has been estimated to be capable of carrying 20 MIRV warheads; if we assume the conversion of all the SS-9s to Super-9s, apparently feasible under the Interim Agreement,

and also assume three warheads per SLBM, we would come to over 12,000 warheads. Thus, the projected 2 1/2-to-one advantage of the U.S. in missile warheads could drop to near parity or even a five-to-three disadvantage.

But not all these warheads are created equal. It has been estimated, for example, that the 20 MIRVed warheads in a Super-9 would have from one-half to one megaton of power each.* This contrasts with U.S. MIRVed warheads in the 50-to-150 kiloton class, or an order of magnitude lower. The significance of this, as Dr. John Foster, Director of Defense, Research, and Engineering, pointed out in Congressional testimony in 1969, is that the larger warheads, with estimated potential accuracies, would permit the Soviets a good single-shot "hard target" kill potential, or a "counterforce" capability against Minuteman. In contrast, the small warheads of the U.S. with present accuracies do not have a good single-shot capability. In 1969 we cancelled the so-called Startrack program to use celestial navigation to give some of our SLBM MIRVs much greater accuracy. Thus, we could argue that the prospective Soviet MIRVs were "bad" MIRVs, and our MIRVs were "good" MIRVs.

The U.S. MIRVs could presumably be improved, especially in CEP (circular error probable), or accuracy, beyond what is provided in current programs; but then, so could the Soviet MIRVs be improved over time. If they have only a two-year lag in technology, as Secretary Laird has estimated, then we must assume, on the basis of experience in other areas of technological competition, that if they wish to make a sufficient effort the Soviets can catch up with the United States in the next five years.** If they do, then with their four-to-one throw-weight advantage in ICBMs and an

*William Beecher, Military Correspondent of the New York Times, in a Public Broadcasting Service program on June 1.

**The assumption that the Soviets could catch up within five years does not imply the U.S. progress ceases but only that we will be pushing closer to the limits of the technology and will thus face increasing difficulties. It may also be noted that the U.S. MIRV hardware was developed in about three years, 1966-69, and that a good deal of information on its engineering characteristics has reached the open literature (Senator Buckley, Senate Foreign Relations Hearings, June 29, 1972).

assumed parity in the uncontrolled size of their and our SLBMs, they could have some 20,000 MIRV warheads in their permitted missile forces, with comparable sizes and accuracies to the U.S. -- nearly a 3-to-1 advantage. The psychological value of this physical advantage could be very great, particularly after the U.S. has so widely advertised the importance of an advantage of numbers of warheads.

But this is not to suggest that this is what the Soviets will do, or even that it is what they should do, from their point of view, or that they would necessarily find lucrative targets for all those warheads. It is always dangerous to assume -- as we do too often -- that the Soviet systems will mirror-image ours. They might indeed put their efforts into the presently excluded systems -- SLCMs, bombers, mobile missiles (although prohibiting the latter will presumably be an objective of the U.S. in the next SALT go-round, and we have already indicated our unilateral understanding that for the Soviets to deploy mobile land missiles would be outside the spirit of the Agreement). They might indeed try to achieve such a MIRV stance and fail, though it is difficult to see why this should happen. But the Agreement does leave these options open to them, and under either of the options described above they would clearly achieve MIRV superiority. The question is one of the potential uses of such superior forces and how they would impinge on the U.S. strategic position.

The overriding U.S. objective for its strategic nuclear forces has long been deterrence. Under Secretary McNamara, the concept of Assured Destruction was evolved for our deterrent forces. This was defined as an ability in a "second strike mode," that is, after absorbing a Soviet attack on our strategic forces, to deliver weapons which would inflict 20 to 25 percent fatalities on the Soviet population and the destruction of one-half to two-thirds of their manufacturing capacity. The doctrine further held that stability would be achieved if both sides had just a second-strike capability, i.e., Mutual Assured Destruction -- a posture which many people, this writer included, consider to be too aptly described by its initials, MAD. The U.S. side of this MAD philosophy was modified to the concept of "Sufficiency" under the present Administration. Sufficiency has four objectives, the criteria for which have only been defined in the following general terms, but which in any event presumably require modification since

the SALT Agreements:*

1. "Maintaining an adequate second-strike capability to deter an all-out surprise attack on our strategic forces." (Not, be it noted, explicitly to deter attack on U.S. cities or on its allies, as under the Assured Destruction doctrine -- this still looks like Assured Destruction, but not for the stated objective of deterring a Soviet Assured Destruction, and it neither precludes nor prescribes damage-limiting capabilities).
2. "Providing no incentive for the Soviet Union to strike the United States first in a crisis." (Again, our Assured Destruction capability should not under any circumstances be impaired, but cf. 3, below.)
3. "Preventing the Soviet Union from gaining the ability to cause considerably greater urban/industrial destruction than the United States could inflict on the Soviets in a nuclear war." (Assured Destruction is no longer defined by an absolute level of destruction above: it must be substantially as great as the other side's).
4. "Defending against damage from small attacks or accidental launches." (Small attacks might be light Soviet attacks to test U.S. will and to coerce the United States, or they might be 'Nth country' attacks -- possibly of increasing plausibility if strategic arms limitations become increasingly severe but remain bilateral. While this objective still obtains for our air defense, it was abandoned in U.S. ABM planning in 1969, when the Sentinel was dropped in favor of the Safeguard concept, and it is now effectively ruled out by the ABM Treaty.)

*"National Security Strategy of Realistic Deterrence," Secretary of Defense Melvin R. Laird's Annual Defense Department Report, FY 1973, Govt. Printing Office, February 1972, p. 65. "Realistic Deterrence" is not discussed in this paper, since it goes far beyond Sufficiency and the objectives of our strategic forces to include all of our other forces and our military assistance alliance and negotiating policies as well.

But neither the MAD doctrine nor Sufficiency appears adequate for the security of the United States. The very basic reason for this statement is the fact that, the present agreements to the contrary notwithstanding, there is no indication in the literature, words, or programming of the Soviet Union to indicate that the Soviets have ever embraced the Assured-Destruction-only criterion. On the contrary, they repeatedly indicate that they do not accept it. There was a time, in fact, when their comments on U.S. policy often implied that our emphasis on Assured Destruction was at best crazy and at worst incredibly bloodthirsty.

But one could question this policy even if the Soviets did not. Much as we all shrink from the question, we still must ask: If deterrence fails, what then? The prospect of a reflexive launching of Assured Destruction when it is too late to deter the Soviets from an attack on us is abhorrent and not sufficiently logical to make one assume that a future President would carry it out -- and President Nixon has said that he wants other alternatives. Moreover, basing our planning on faith in the Assured Destruction deterrent may prevent us from planning forces that could contribute to intra-war deterrence, that is, countermilitary second-strike capabilities that might deter further attacks, especially city-busting, during a war. Similarly, we might not have capabilities to help bring about war termination short of complete holocaust. Finally, planning under an Assured-Destruction-Only philosophy or under Sufficiency may not provide for an adequate capability to conduct -- or counter -- less-than-all out strategic nuclear operations. Although it is precisely to prevent the possibility of any form of strategic nuclear warfare that an assured destruction capability is intended, two possibilities must nevertheless be recognized: (1) a desperate future Soviet leadership might launch a small strategic nuclear attack of some form designed to test our will and to coerce us into a negotiated settlement of some crisis along lines favorable to themselves; and (2) a future U.S. President, faced by such a Soviet attack (against which we cannot now defend, despite the fourth objective of Strategic Sufficiency) or faced with a crisis which he regarded as touching the United States' most vital interests, might insist on options short of the Assured Destruction mission. He might just be rational enough to want some alternative buttons to push -- as Mr. Nixon has said.

How do these U.S. objectives fare under the Moscow Agreements, given the Soviet options described above? What might the Soviets do with some thirteen to twenty-two thousand warheads, plus a willingness to consider warfighting and not just deterrence? With, say 6,000, or even fewer, large warheads in their Super-9 force, the Soviets could have an overwhelming ability to eliminate the Minuteman force virtually completely, including the Grand Forks site defended with 100 interceptors. A few more warheads could eliminate part of the Polaris/Poseidon force -- those in port -- as well as some of the key command control facilities for that force (and ASW might get some of those at sea). Some of their SLBMs might hit or pin down much of our bomber force. A few hundred warheads could presumably eliminate any force the Chinese had accumulated by 1977, if, indeed, shorter-range missiles, such as those understood already to have deployed on the Siberian-Chinese border, could not do the job.

After all of this -- still far short of the "splendid" first-strike that would completely disarm the United States -- the Soviet Union would still face the United States with its Assured Destruction capability deterring the U.S. Assured Destruction and with remaining, greater-than-Assured-Destruction forces capable of further threatening the U.S. Assured Destruction and of coercing the U.S., possibly to accept some non-nuclear advantage already secured by the Soviets -- for instance, a takeover of West Berlin, some dramatic incursion in the Middle East, or some other, presently less foreseeable, fait accompli.

But the Soviets might not need to do, or even directly to threaten, any of these dreadful things. The mere assertion and appearance of superiority, even if it didn't convince the United States, might still convince third parties. Would this not erode the will of our allies to support U.S. policies and to share the burden of common defense? Might it not greatly weaken the resolve of third countries to become self-reliant in their own conventional defense -- the prime objective of the Nixon Doctrine?

If the postulated MIRVs are a reasonable picture of Soviet options under the Moscow Agreements and of their potential effect on the U.S. position, what are the options for the United States? Let us examine first what direct measures are open under the Agreements to ameliorate the potential U.S. disadvantage.

First, one would want to increase the survivability of our forces. This means not just Assured Destruction forces, but total strategic forces, including those that might potentially be given a counterforce capability to offset the apparent and real potential advantages described as within reach of the Soviets under the Interim Agreement. One thinks first of active defenses, but these have been virtually eliminated by the ABM Treaty. True, we have reserved the right to withdraw from the Treaty if a comprehensive agreement on offensive forces cannot be satisfactorily reached during the five-year life of the Interim Agreement. But the question before us is how we can make both agreements viable from the U.S. point of view, not how we can turn back the clock on arms control. About all that can be said here, therefore, is that we should continue research and development of ABMs and of alternative methods of ballistic missile defense, in order to remain adequately safeguarded (with a small s) or assured, against a Soviet withdrawal from the ABM Treaty^{*} and against a possible finding at some future date that the United States must withdraw because it finds its supreme interests to be jeopardized by Soviet deployments under the terms of the Interim or a succeeding agreement or even by a Soviet violation of an agreement. In this connection, it may be noted that the Grand Forks ABM deployment, while of minor strategic significance, will indeed afford an experiential base to facilitate further research and development, even if the Washington deployment should not be approved by Congress, as seems at this writing to be quite possible. It may also be noted parenthetically that the drastic limitations of the ABM Treaty not only prevent a light area defense to meet the fourth objective of the sufficiency doctrine but also contain strong asymmetries in favor of the Soviets. This is because their NCA defense at Moscow also covers some 350 ICBM sites^{**} and thus is

* Note that this is the first time the "defense-minded" Russians have eschewed an important element of defense. It has been argued that this represents their acceptance of the American concept of stability through insurance against the jeopardizing of *either* side's deterrent (or Assured Destruction) capabilities. But it can equally plausibly be argued that the Soviets were encountering great difficulties in building an *effective* ABM and feared that the United States would outdistance them (e.g., because of its commanding lead in computer technology) and that they are looking to other means (counterforce attacks) for damage limiting.

** Senator Buckley in the testimony cited above.

worth roughly two Grand Forks deployments, and in addition it covers more of the Soviet population and industrial capacity than the Washington deployment would for the United States. The two Soviet sites may also be only 800 miles apart, against the 1400 miles between Washington and Grand Forks, raising the possibility of their "netting" their radars for more effective coverage. Acceptance of these asymmetries in the Treaty is nevertheless reasonable because the symbolic value of the Treaty exceeds its strategic significance at the low levels of ABMs permitted.* The second assurance required is of course great vigilance against the possibility of violation of any of its terms, e.g., by the upgrading of air defenses, the deployment of ambiguous radars, the clandestine manufacture of additional missiles and rapidly deployable launchers, etc.

Passive defenses for the forces may also be considered.** Hardening of the ICBM forces has of course already been undertaken to a significant extent. The potential for further hardening under the Interim Agreement is not clear, but, in any event, hardening appears at the present time to be a losing race against the improvement of offensive technology -- war-head yields and accuracies. The possibility of concealment of the fixed land-based missiles is proscribed by the Agreement, in its provision that neither side will "use deliberate concealment measures which impede verification by national technical means" (Article V).

Mobility has long been considered as an option for increasing the survivability of land-based forces. While mobile missiles are not prohibited

* Many people, the writer included, believe there are compelling reasons not so severely to limit ballistic missile defense, but we will come later to the strong arguments for ratifying the Treaty now that it has been signed.

** Civil defense is not considered here. First, civil defense is for the population, not the strategic forces, and is thus not immediately germane. Soviet civil defense, however, in conjunction with possible evasion of the ABM Treaty, might be of very great strategic significance. The potential for civil defense for the United States is not discussed here, however, because it appears to be politically the most unlikely -- a virtually impossible -- option for the U.S. in the foreseeable future. The political improbability of large civil defense programs in this country has been greatly reinforced by the history of earlier proposals and particularly by the emphasis in those proposals on local community and individual responsibility, to which the people reacted with an intuitive realization of the appropriateness of the Preamble of the Constitution, which points out the need for a Federal Government "to provide for the common defense."

by the Agreement, we have noted the unilateral understanding expressed by the United States that the introduction of land mobile missiles would be considered not in the spirit of the agreement.* Moreover, it seems likely that the prohibition of mobile missiles will be high on the agenda of SALT II. There are several reasons why this appears to be a sensible U.S. goal. The basic one is the difficulty of verifying any numerical limitations on a permitted land-mobile system. There are also asymmetries favoring the Soviets in employing land-mobile missiles, on which they have done development work and we have not, such as the vastly greater land availability in the Soviet Union, lesser political control and public interface problems, and heavy cloud cover in suitable deployment areas.

Many have advocated replacing land- with sea-based missiles, for mobility, concealment and survivability, but this again is sharply delimited by the Interim Agreement, which permits the U.S. only the substitution of 48 SLBMs for the 54 old land-based Titans presently in the forces (and the Soviets, SLBMs for their 210 old SS-7s and SS-8s). To many of us, this course has in any event not appeared to be a reliable long-run solution because the invulnerability of missile submarines cannot be assured in the long haul.** This is true both because of the potential improvement of anti-submarine warfare (ASW) -- a hard route, to be sure, but an effective Soviet ASW capability in the coming years cannot and should not be ruled out -- and because of the potential vulnerability of the communications on which the command and control of the U.S. undersea forces rely.

* Note that air mobility is not considered anywhere in the Understandings or the Interim Agreement. Presumably, missiles launched from bombers are considered part of the bomber problem. If they are short-ranged, they fall within the current or near-future technology of "standoff" missiles. Conceptually, however, a full-fledged ICBM could be launched from a large plane (a 747?). Thus, it could be launched from over the home territory, with both safety and launch-accuracy advantages.

** One can also contemplate sending missiles to sea in surface ships, particularly if smaller ships are used in large numbers, with fewer missiles per ship, but since this appears clearly to be outside the spirit of the Agreement (unless one is talking about cruise missiles), the complex pros and cons of such an approach will not be discussed here.)

What of the SLBMs, the Submarine-Launched Ballistic Missiles, permitted under the Agreement? The Administration has already urged going forward with the new generation ULMS, the Undersea Long-Range Missile System, to supersede the present Polaris-Poseidon system. While many people are understandably disappointed by this proposal for large new expenditures, under a limited arms limitation agreement neither side can afford to seek needed capabilities that are permitted. Indeed, the President has said that Brezhnev told him the Soviets will proceed with nonlimited programs and he expected that we would also. To do so is particularly important for the United States under the Interim Agreement, in view of the very significant inferiorities in the U.S. missile position noted above. Moreover, distasteful as the "bargaining chip" approach may be to some, its validity has been amply demonstrated in SALT.

The most significant advantages of the ULMS lie in the larger size of the missile (again note that missile size is not limited in the Interim Agreement on SLBMs) and its much greater range. The greater range means that vastly larger areas of the ocean can be used for concealment. More important may be the possibility of concentrating the submarines in ocean areas closer to the U.S. shores, where they can be given greater protection and where communications with them would be facilitated. (These advantages would be significant also for less-than-all-out nuclear warfare, where uncertainties of communications and risks of slow attrition could make the submarines low-confidence weapons.) Moreover, this could eliminate dependence on overseas bases, which the United States will be under continued pressure to "liquidate," as the Soviets have put it.

The ULMS I, a 4500-nautical-mile missile compatible with installation in the existing Poseidon boats, should be procured. The ULMS II, the Trident, a 6000-nautical-mile missile to be installed in a large new boat which is to carry some 24 missiles, would obviously more fully exploit the advantages of longer range and large size. Here too, the bargaining chip argument is compelling, though one would hope that there is still time for further examination of the question of the number of missiles per boat. While there are presumably significant cost advantages in having more missiles in a larger boat, there are also increased risks in putting all one's eggs in fewer baskets.

It remains to consider the case of strategic bombers. These are conspicuously absent from coverage by the Interim Agreement. We have already noted that the American three-to-one advantage in existing heavy bomber forces is one of the justifications of the acceptance of numerical and payload inferiority in missiles. It is quite logical that agreements were reached first on missile limitations, as the problem of defining strategic bombers offers formidable obstacles. Can arbitrary definitions of "heavy" define a strategic bomber? With appropriate refueling and basing, medium bombers and even fighter bombers can reach strategic targets. And presumably heavy transports are convertible to bombing use. Moreover, bombers are the one category of strategic weapons that have a dual capability, with a conventional warfare role, carrying HE or "iron" bombs -- witness the use of the B-52 in tactical and limited strategic roles in Vietnam.

The case for the B-1, like the ULMS, is enhanced by the Interim Agreement, as the Administration has indicated. It too is an appropriate bargaining chip. And as long as the terms of the Interim Agreement obtain, it is a necessary safeguard. The B-52s will presumably be wearing out in the '80s, even if we do not continue to use them in Vietnam or similar applications, and the B-1 cannot start phasing into the forces before the end of this decade. The B-1 is a vital hedge against the very great advantage in deliverable missile warheads that the Soviets might achieve under the Agreement. The tremendous number of air defense weapons maintained in the Soviet Union has been widely noted, and there is nothing to stop them from improving these air defense capabilities. The greater survivability of the B-1, with its low-altitude capability and its large capacity for carrying SCADs (Subsonic Cruise Armed Decoys) and SRAMs (Short-Range Attack Missiles) as well as bomber defense weapons, makes it an impressive insurance policy. Under the terms of the Interim Agreement, it could even prove necessary and advisable to consider deploying larger numbers than the presently contemplated B-1 procurement, especially if improved Soviet air defense compel the carrying of greater loads of bomber defense weapons and lessen the B-1 penetration probabilities.*

*The SRAMs (in B-1s or B-52s) provide the possibility of very large numbers of warheads to offset the potential Soviet advantage in missile warheads -- if all or most bomber payload can be devoted to them while maintaining high penetration probabilities.

Secretary Laird has asked for an additional bargaining chip in the development of an SLCM, or Submarine-Launched Cruise Missile. This is an aerodynamic rather than ballistic missile system and is not covered by the Interim Agreement. The Soviets have several hundred and presumably the United States might develop them as a significant offset to some of the Soviet advantages under the Agreement. Such a system has not in the past been considered as desirable for strategic purposes as ballistic missiles, but too little is known at this time about what it will look like to permit its evaluation; initiating research and development certainly appears to be a sensible hedge. It might be noted that cruise missiles could also be launched from surface ships and aircraft, quite probably with significant gains in lead time for their deployment.

But all of the above options for increasing the survivability of and otherwise improving our strategic forces have their limitations. Since we must recognize the possibility of the kind of Soviet drive for increasing counterforce capabilities described earlier, we must also look at our options for technological competition in the development of counterforce capabilities. This means a need for more, not less, research development, at least until effective means of limiting technological development, that is, qualitative arms controls, are found. Clearly, this will be a vastly more difficult undertaking. The verification problems are very great, as long as highly intrusive inspection agreements appear to be politically, as well as quite possibly technically, infeasible. It has been argued, for example, that the testing of MIRVs can be unilaterally monitored, though many, including the writer, believe that concealment of testing is feasible; but clearly the deployment of MIRVs, once developed, cannot be effectively policed.

We should, meanwhile, repeal our above-mentioned self-denying ordinance against the maximum improvement of weapon-delivery accuracy. Accuracy is necessary to offset the small yields of our MIRV warheads for hard-target kill capability and to reduce collateral damage. An alternative for hard target kills is the development of larger-yield weapons, through better yield-to-weight ratios and even at the expense of some numbers of warheads (particularly since under the ABM Treaty the deployment of MIRVs is no longer driven by the need for penetration capabilities). Other opportunities

exist, such as the improvement of propulsion systems and launch techniques to permit larger payloads on given missiles. And finally, there is the need for continued research and development on "exotic" new systems, such as those using lasers.

But more important, in fact paramount, as suggested earlier, is the continued examination of our strategic objectives. The preservation of an Assured Destruction capability as a deterrent may remain vital to security and political purposes, but more realistic warfighting capabilities would enhance deterrence and are almost certain to be required just to preserve deterrence. There is an urgent need for the flexible options which the Administration has so realistically indicated it requires -- but on which it has remained silent during the discussion of the Moscow Agreements.

It is also imperative that strategic planning take account of the inevitable growth of Chinese capabilities and probably of future additional Nth nuclear powers. The limitation of ballistic missile defense to token proportions under the ABM Treaty may over time prove disastrous (to both sides) and require revision as these Nth-country potentials grow. Future SALT sessions will come up increasingly against the Nth-country problem. The unilateral Soviet proviso that any increase in the non-U.S. NATO SLBM forces, above the nine programmed French and British boats taken into account in the Interim Agreement, would require them to increase the number of their submarines beyond those presently permitted is clear enough evidence of the difficulty of deciding these issues in terms of superpower capabilities only. Finally, as the Administration has perceived in its development of the "total force" concept, strategic concepts, planning, and arms agreements must take account of the nonnuclear portion of the spectrum of forces and potential conflict. Here it is worth quoting Henry Kissinger once more:

Effective control against surprise attack not only may make limited wars more likely, it may also cause them to increase in intensity. If communication between the protagonists is assured and if a mechanism exists for verifying that a given act is *not* a prelude to surprise attack, an aggressor may become confident that no matter what the scale of aggression he will always be able to keep matters under control. . . . It would be ironic indeed if the violence of conflicts increased because statesmen seemed *too much* in control of events.*

**The Necessity for Choice*, Harper and Bros., New York, 1960, p. 230.

Thus, the long-hoped-for monetary and resource savings from strategic arms limitation agreements may not only be offset by the necessity for programs for non-covered forces, as long as the agreements are limited rather than comprehensive, and by the necessity for research and development assurances even under a comprehensive agreement, but costs might well go up in the non-strategic, or general purpose forces area. This redoubles the importance of diligent pursuit of other kinds of arms limitation. The reduction of the large standing forces in Europe -- MBFR (Mutual Balanced Force Reduction), or RFR (Reciprocal Force Reduction), as it is coming to be called -- is the obvious next step.

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Where does this leave the United States, insofar as we can perceive things clearly so soon after the signing of the Moscow agreements and before the Congressional and national debate has really gotten going?

Apparent, codified Soviet superiority in strategic forces is an unacceptable basis for U.S. foreign policy. We have pointed out that such an appearance of Soviet superiority could have serious effects on the will of our allies to support U.S. positions and of Third World countries to achieve the self-reliance in conventional defense that is the primary objective of the Nixon Doctrine. We have also seen that even if the Interim Agreement does not appear to these countries to give the Soviets this superiority, potential developments under the Agreement clearly could do so. The apparent infeasibility of a MIRV ban that would effectively prevent Soviet exploitation of its large throw-weight advantage in the numbers of missiles presently permitted, the difficulty of limiting -- though not necessarily of prohibiting -- mobile land missiles, the difficulty of imposing effective limits on strategic bombers, and especially difficult problem of devising qualitative limits on the improvement of all of the forces, all indicate the onerous nature of the negotiations ahead of us. Moreover, if the domain of SALT II, that is, the types of forces it covers, remains the same as in SALT I, but the numbers of weapons are reduced from present permitted levels, our strategic problems will be exacerbated.

Despite the worldwide appeal of such reductions, it is clear that any discrepancy in forces becomes increasingly dangerous and threatening, the smaller those forces are. If one side has 1000 weapons and the other 500, the situation may be much more unstable than if one has 20,000 and the other 10,000.

The withdrawal option is destabilizing. It is clear from a reading of the Treaty and Interim Agreement, the accompanying Understandings, and the Administration presentation of the Agreements, that both sides are relying heavily on the option to withdraw from the Agreements, with six months' notice, if they find their supreme interests to be "jeopardized by extraordinary events relating to the subject matter" of the Agreements. It is equally clear, however, that the exercise of this option by either side would be a highly destabilizing action. To withdraw from an agreement in order to be free to redress a perceived imbalance in the forces would not be the same as simply to enact new weapons programs, as both sides have done in the past, to meet a perceived need. On the contrary, following the reassuring atmosphere of détente which the reaching of these momentous agreements represents, withdrawal would signify to the world a period of crisis and confrontation between the Superpowers. Ratification is a commitment that cannot be lightly cast aside.*

The trend toward increasing arms controls should continue, but not with "its own mad momentum." Failure to ratify would have some of the same adverse international effects as withdrawal from a ratified agreement. The Moscow Agreements are widely regarded as a giant step for mankind. Their symbolic value alone dictates that they be ratified and followed up with further, more comprehensive agreements. But symbols must not obscure substance, and there must not be a mindless -- or political -- drive for agreements for agreements' sake.

The problems discussed in this paper are real. The dangers are real. The Interim Agreement appears to have stopped -- within rather wide tolerances --

* The Interim Agreement, being an executive agreement, rather than a treaty, must, under the terms of the law establishing the Arms Control and Disarmament Agency, be approved by resolution of both Houses of Congress before it enters into force. The effect is the same as ratification.

the Soviet buildup in the size of its ballistic missile forces, though it has left broad scope for the qualitative improvement of those forces and especially for the increase in numbers of warheads deliverable by the fixed numbers of vehicles. It prevents future buildups of some U.S. forces, which were not programmed but might have occurred at some future date. It has not and must not be permitted to stop the improvement of uncovered forces.* That is the business of the next round of SALT -- which should not bargain away our "offsetting" advantages in uncovered forces. It has become clear that the Agreement will not save money and resources. Future agreements may, but clearly the big money is in the control of General-Purpose Forces, which currently consume well over 80 percent of our military budget. But desirable as saving money and resources is, the overriding objective of arms control must be enhanced national and world security. The long-term achievement of this goal remains to be negotiated. Under these and all future agreements, assurances for the maintenance of security must be our major business. This means surveillance programs, research and development, and exploitation of permitted force options to maintain parity with Soviet strategic forces. The assurance principle must be uppermost in the minds of the Congress in studying the Agreements and evaluating reservations it may want to attach to their ratification. It is equally important for the rest of us in conducting a national debate to assist in informing the Congress and the Executive, and it must be governing for the Executive and his SALT Delegation in further Talks and for our representatives on the Standing Consultative Commission to be established under the Treaty. The next agreements will be tougher to negotiate; first because the toughest issues have been deferred and second because of the pressure of an existing Agreement and the understanding that maintenance of the ABM Treaty is conditional on reaching a further agreement during the life of the Interim Agreement.

* Senator Proxmire has already proposed that we discontinue work on SAM-D, a new-generation air defense system, on the ground that it could have an anti-missile capability and therefore would violate the ABM Treaty. But the Treaty does not prohibit *potential* ABM systems -- which many believe the Soviet SA-5 to be -- but only their testing "in an ABM mode." Certainly, SAM-D, which may prove vital to our future General-Purpose Forces, should not be given up without negotiating a real quid pro quo.

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SALT I: THE MORNING AFTER

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