

Mutual Force Reductions and Soviet - American Arms Control: the Question of Linkage

COIT DENNIS BLACKER*

For more than four years, the United States and the Soviet Union have been almost continuously engaged in two sets of arms control negotiations. Since November 1972, delegates from the two countries have sought to negotiate a comprehensive, follow-on agreement to limit the development and deployment of strategic nuclear weapons. Less than a year later, representatives from eleven NATO and Warsaw Pact states, including the two superpowers, began to explore ways to reduce the level of armed forces and armaments in Central Europe.

The purpose of this paper is to investigate both the nature and the degree of interdependence between the strategic arms limitation talks and the mutual force reduction negotiations. More specifically, the objective is to determine how the two principals, the United States and the Soviet Union, have approached the issue of linkages. It will be argued in the analysis which follows that Washington and Moscow view the relationship of MBFR to SALT in fundamentally different ways. In both political and military terms, the link for the Americans is weak and indirect; in contrast, the connection from the Kremlin's perspective is both stronger and more substantive. As a result of these contrasting conceptions, the two countries have persistently advanced proposals in MBFR and SALT which are in a basic sense incompatible. The effect in Vienna has been to prolong the stalemate that has characterized that conference since its inception; in SALT the conflicting perceptions have complicated the negotiations and contributed to the delay in the formulation of a second-stage strategic arms agreement.

The paper also examines how the introduction of two new weapon systems—the Soviet SS-20 ballistic missile and the American cruise missile—could add another layer of complexity to the Vienna talks by exacerbating the problem of coordination between MBFR and SALT. The argument will be made that due primarily to their latent strategic capabilities, both weapon

*Coit Dennis Blacker is a doctoral candidate at The Fletcher School and a research fellow at the Arms Control and Disarmament Program, Stanford University. The author would like to express his appreciation to Robert Legvold, Michael Nacht, Stephen Flanagan and Jane Sharp, who were kind enough to comment on and critique an earlier draft of this paper.

systems are ill-suited for inclusion in the Central European force reduction negotiations and should be assigned either to SALT or to a third arms control conference, devoted to the limitation of European nuclear systems. Any agreement to constrain their deployment would, however, be difficult to monitor because of verification problems which would arise as a consequence of their mobility. The paper concludes by advancing several recommendations which could, if adopted, permit a more precise delineation between MBFR and SALT and by doing so facilitate the achievement of consensus in both forums.

COMPETITIVE CONCEPTIONS

The first and most basic problem in discussing the link of MBFR to SALT is that American and Soviet attitudes toward that linkage do not in any meaningful sense coincide. The difference in interpretation is in part a function of how the two countries view arms control in general. To appreciate more fully the rather complex interdependence between MBFR and SALT, it is important to review separately and in some detail how Washington's approach to the control and limitation of armaments is distinct from and conflicts with that of Moscow.

The American View

The United States has traditionally approached arms control from the perspective that each set of negotiations is to a degree an independent enterprise, connected only in a generic sense to other arms limitation conferences which may be underway simultaneously. Washington has evidenced a tendency, especially in negotiations with the Soviet Union, to disaggregate arms control into component parts or to pursue a course which Lawrence Caldwell has termed "fractional" and "restrictive" in nature.¹ This American attitude is in part a function of geography. The United States is in essence an island power, separated from its potential adversaries by thousands of miles. In one sense, the only direct threat to its security is posed by the strategic nuclear weapons of the Soviet Union. All other challenges to American security can be classified as indirect; no other conceivable opponent has the military capability to inflict large-scale or unacceptable damage on the American homeland. As a result, policymakers in Washington distinguish sharply between negotiations

1. Lawrence Caldwell has done an admirable job in analyzing how the American and Soviet approaches to arms control differ, with special reference to the MBFR negotiations. His ideas are expressed with the greatest clarity in *MFR and Soviet Security Interests in Europe*, published by the California Seminar on Arms Control and Foreign Policy, the Rand Corporation, Santa Monica, California, 1975.

to limit the offensive strategic nuclear systems of the two superpowers and other arms control conferences to which the United States is a party, such as the MBFR talks.

For the Americans, SALT is a bilateral affair, dedicated to the preservation of strategic stability between the two preeminent nuclear powers. The objective of the negotiations is to impose verifiable limitations on the development and deployment of those nuclear weapon systems with the capacity to reach targets within the United States and the Soviet Union from intercontinental range, i.e., land-based ballistic missiles, submarine-launched ballistic missiles and long range bombers. The systems which do not meet that requirement are not, by the American definition, strategic and as such are not to be addressed in the SALT context.

In MBFR, as in SALT, the American goal is the preservation (or, more pessimistically, the achievement) of military stability, but within a sharply defined geographic region — Central Europe. In substantive terms, the Western focus in Vienna is also a narrow one. For the NATO participants, disturbed by the continual modernization and reinforcement of the Warsaw Pact armed forces, the central purpose of the negotiations is to arrest the expansion of communist military power, especially in those categories where Western inferiority is the most pronounced, namely manpower and armor. The Atlantic countries are much less interested in an accord which would provide for a reduction in theater nuclear weapons and “dual-capable” aircraft; with respect to the former, because the numbers favor NATO, and in the case of the latter, because alliance military planners fear that virtually any cut would accentuate rather than alleviate existing instabilities. While all facets of the Central European military balance trouble NATO officials deeply, their approach to the Vienna talks has been to single out those elements of the Pact’s armed forces which disturb them the most and seek their reduction; those components which are of less immediate concern they would prefer to exclude from the negotiations or, where that seems unrealistic, to use them as “bargaining chips” to obtain concessions from the socialist delegations.²

Thus from the American perspective, it is possible and in fact preferable to disaggregate SALT and MBFR. There need be no tangible linkage between the two negotiations. The strategic dimension can be addressed entirely within the bilateral framework, without reference to the military balances in other parts of the world. In a very similar fashion, the Americans contend that the issues being debated in Vienna relate exclusively to the theater balance in Central

2. The attempt to use reductions in NATO weapon systems as “bargaining chips” in order to increase the Warsaw Pact’s interest in the Western MBFR proposals was apparent in the so-called Option III plan presented by the NATO delegations in December 1975. The substance of Option III, and the Soviet response to it, is discussed below, in the section entitled *FBS: The Persistent Dilemma*.

Europe. The implications of a mutual force reduction agreement are largely regional in scope. While those negotiations are of obvious importance to the superpowers, what transpires in MBFR will not in any measurable way alter the strategic relationship between the United States and the Soviet Union. By logical extension then, the conferences can proceed independently and the formulation of an agreement in one forum need not depend on progress in the other.

Reinforcing this "fractional" approach has been the American inclination to decouple arms control from politics. The limitation and reduction of nuclear and conventional weapons is regarded as a valuable and worthwhile objective in and of itself and, if properly effected, conducive of international stability. Even though SALT and, to a lesser extent, MBFR have come to be viewed as the very symbols of superpower detente, Washington has attempted to impart to these negotiations self-sustaining and independent rationales and to set them apart from the vagaries of international diplomacy. This in turn has encouraged American authorities to divide arms control into autonomous exercises and to concentrate on their respective technical complexities rather than on their political interdependence.³ Moreover, the improvement of relations with the Soviet Union and the acceleration of economic interaction which has accompanied the success in arms control has not been, from the American vantage point, the *raison d'etre* for the negotiations. Although carefully and consciously nurtured by the Nixon and later Ford administrations, the detente relationship with Moscow assumed its present form only after the initiation of the strategic arms limitation talks; for Washington, the commitment to arms control not only predated the commitment to detente but was in fact a necessary precondition for the improvement in relations.

The Soviet View

For the Kremlin, there are substantive linkages between SALT and the Vienna talks because their approach to arms control, unlike that of the United States, tends to be both integrated and comprehensive. The Soviets do, to be

3. Secretary of State Kissinger was less attracted to this approach than were his predecessors and contemporaries in the American foreign policy establishment. It was his perception that the Soviet Union could be compelled to act as a responsible and moderate international actor through a series of interlocking agreements in the fields of arms control, economics, and "crisis management" that would give the Kremlin a greater stake in the preservation of the status quo. The ties to the West would become so important to Soviet leaders, Kissinger reasoned, that Moscow would refrain from foreign policy "adventures." The concept was never very well articulated however, nor were the linkages explicit. It is unclear at this point whether the Carter Administration will pursue the Kissinger formula; the President's efforts to pursue a vigorous "human rights" policy while at the same time conducting serious arms control negotiations with the Kremlin suggests, however, that the "fractional" approach has become, once again, the preferred American strategy.

sure, decouple strategic arms control from other negotiations concerned with the amelioration of military tensions at a regional level. Clearly, their overarching consideration in SALT has been and continues to be the limitation of those nuclear weapons of the United States which can strike the Soviet Union from intercontinental distances. Likewise, their central objective in MBFR has been to maintain the local, conventional superiority of the Warsaw Pact vis-à-vis NATO in Central Europe.⁴

The Soviets do not, however, disaggregate the issues in SALT and MBFR with the same degree of precision as do the Americans. There are for Moscow concrete linkages between the negotiations, first and foremost in the military realm. Just as geography strongly influences how the United States perceives threats to its security, so does this factor shape Soviet conceptions. But whereas geographic conditions allow the United States to distance itself from the military balance in Europe, the reverse holds true for the Kremlin. The territory of the USSR is vulnerable to attack not only from the central strategic forces of the United States but also from a number of NATO aircraft in Europe armed with nuclear and conventional ordinance. A significant portion of these aircraft are the so-called Forward Based Systems of the United States, which include the F4s based in Europe, the A6s, A7s and F4s of the Sixth Fleet in the Mediterranean and the F111s stationed in the United Kingdom.⁵ Moscow contends that those Forward Based Systems with a combat radius sufficient to transgress Soviet borders constitute a de facto "strategic" threat, in spite of their designation by NATO as "tactical" aircraft.

Originally, the Kremlin sought the inclusion of FBS in SALT I. The Americans, citing their contribution to Western European and NATO defense, alleged that those systems were not negotiable in a bilateral context and argued for their exclusion. After considerable hesitation and delay, the Soviets agreed informally to exempt FBS from the first round of the strategic arms talks. They did not, however, regard the problem as solved, but simply deferred. When the force reduction conference opened in 1973, the Soviets resurrected the issue by proposing that aircraft, as well as manpower and other weapon systems, be curtailed through an MBFR agreement. By raising the FBS question in Vienna, it is undoubtedly Moscow's intention to secure a reduction in American nuclear-capable aircraft that lie within the "agreed reduction zone," i.e., within the territory of West Germany and the Benelux countries, which can deliver their ordinance to the Soviet homeland.⁶

4. See John Erickson, "European Security: Soviet Preferences and Priorities," *Strategic Review*, Winter 1976, pp. 37-43.

5. Caldwell, *MFR and Soviet Security Interests*, page 71.

6. Western military authorities tend to degrade the "strategic" role of American aircraft based in Central Europe. They argue that the F4s deployed in West Germany and the Netherlands are designed primarily for tactical missions in Eastern Europe. By flying at low altitude to evade air

Kremlin leaders cannot expect, nor have they attempted, to negotiate constraints on the number and deployment of all American strike aircraft based in and around Europe, as the majority of the Forward Based Systems — the F4s in Spain, Italy, Greece and Turkey, the carrier-based aircraft in the Mediterranean area, and the F111s in England — are situated outside the geographic confines of MBFR.⁷ It is specifically the F4 squadrons in the central theater, and perhaps those aircraft which can be readily dispatched to forward positions, that are of concern to the Soviets in Vienna. Thus, the force reduction talks have, for Moscow, a dual significance: on the one hand, the negotiations can have serious implications for the theater capabilities of the Warsaw Pact armed forces; on the other, they have an important though less evident strategic dimension.

It was the decision to remove FBS from the SALT I process which, in Moscow's view, made it all the more necessary to address at least a part of the issue in MBFR. Yet if the dispute over American "dual-capable" aircraft stationed in Central Europe is not resolved in Vienna, the problem is likely to reemerge, if it has not already done so, in the bilateral negotiations between the United States and Soviet Union.⁸ What does or does not happen in MBFR will influence the way in which the Kremlin defines the FBS issue in SALT, which could have a bearing on what the Soviets propose in the later rounds of the strategic arms talks. Precisely because the Soviets cannot, in their opinion, readily detach the "theater" balance in Europe from the central nuclear balance, they have been unable or unwilling to compartmentalize the two negotiations. In military terms, therefore, the connection is undeniable.

The Kremlin also discerns a strong political linkage. When Soviet leaders discuss SALT and MBFR almost invariably the two negotiations are grouped together and collectively termed "military detente." The purpose of military detente, they argue, is to "concretize" the relaxation of international political tensions. They have on numerous occasions stated that the achievement of a second strategic arms agreement will not only further diminish the risk of nuclear war between the superpowers but will as well

defenses and at subsonic speeds to conserve fuel, these aircraft could, however, be used to attack targets within the Soviet Union. It is this latent capability that induces the Kremlin to seek their reduction in the MBFR talks.

7. Uwe Nerlich, in his Adelphi Paper, *The Alliance and Europe: Part V, Nuclear Weapons and East-West Negotiation*, notes that except for the aircraft in Central Europe, FBS is not a problem that can be settled in the framework of MBFR. He goes on to describe why the other Forward Based Systems with a "strategic" reach are also poor subjects for negotiation in SALT.

8. The Soviets have in fact explicitly referred to the FBS issue in the SALT context once again, as demonstrated by Foreign Minister Gromyko's remarks at the press briefing following Secretary Vance's departure from Moscow in March. Gromyko did not reveal, however, whether the Soviet leadership regards the American aircraft in Central Europe as an appropriate topic for discussion in SALT or whether negotiations on those systems should remain within MBFR.

permit the more extensive development of fruitful and cooperative relations in a wide range of areas. In short, SALT has, according to the Kremlin, imparted both substance and stability to the detente process. In much the same way, an MBFR accord would signal the eclipse of the Cold War in Europe and accelerate the political accommodation among European countries which began with the Conference on Security and Cooperation.⁹

Assuming that limited reconciliation with the West will continue to be one of the cardinal precepts of Soviet foreign policy, it is the complementary *political* messages which would be conveyed by the signing of an MBFR and a new SALT agreement, in addition to their potential value in military terms, which prompts the Kremlin to link the two conferences diplomatically. Somewhat less prosaically, such agreements would also be viewed by Moscow as mutually conducive to Soviet security interests. In SALT, the notion of superpower equality, first acknowledged in 1972, would be reaffirmed. In Vienna, it is clearly Moscow's aspiration to employ the negotiations to initiate a withdrawal of American armed forces from Europe, constrain West German military power and complicate NATO's plans for greater defense collaboration.

Publically, Soviet spokesmen also allude to the implications of failure in arms control negotiations. While careful to point out that the breakdown of one conference would not necessarily cause the collapse of the other, they do assert that a prolonged lack of progress in this critical area will threaten the viability of detente as a whole.¹⁰ Given the importance they attach to the conclusion of a strategic arms accord, this veiled warning undoubtedly has more to do with their frustrations over SALT than with MBFR. Should the Americans and the Soviets prove unable to settle their differences in SALT, however, the repercussions would certainly be felt in Vienna. The already troubled talks would be dealt a debilitating and perhaps fatal blow.¹¹

FBS: THE PERSISTENT DILEMMA

The manner in which the Americans and the Soviets have attempted to deal with the problem of FBS in Vienna is an accurate reflection of their competitive

9. The importance of the SALT process to detente is underscored by several prominent Soviet analysts, including Georgi Arbatov, in "Strength Policy Impasses," *Soviet Military Review*, Number 1, January 1975; and V.M. Berezikov in "Soviet-American Relations in the Modern World," *USA: Politics, Economics, Ideology*, Number 9, 1973. The connection of MBFR to European detente is discussed at some length by Dmitri Proektor in "Evropyeskaya Bezopostnost': Problemi," *Mirovaya ekonomika i mezhdunarodnyye otnosheniya*, Number 9, September 1973.

10. See especially, Arbatov, *Soviet Military Review*.

11. Soviet officials have also said privately that the conclusion of a SALT II accord would expedite matters in MBFR. The public literature does not advance this view and refers only to progress in one forum as beneficial to progress in the other. Moreover, in their private comments, the Soviets do not explain why movement in SALT would improve the prospects for an agreement in Vienna.

approaches to the MBFR negotiations. To date, American Forward Based Systems have been successfully isolated from SALT; apparently, the United States would prefer to bypass the issue in the force reduction talks as well. NATO officials argue, not without reason, that even an equal percentage cut in the tactical air forces of the two alliances in Central Europe would be prejudicial to the West because in a post-MBFR environment the Pact's current numerical advantage in theater aircraft would remain. Moreover, FBS are regarded as a form of compensation for the Pact's lead in men and armor — and as a response to the 600 Soviet intermediate-range ballistic missiles targeted on Western Europe. The NATO allies are also sensitive to the political significance of those systems. American "dual-capable" aircraft symbolize Washington's military commitment to the region; they link the defense of Europe to the strategic nuclear deterrent of the United States. To reduce them could degrade the credibility of the American guarantee. Finally, alliance officials contend that for the sake of simplicity, a reduction confined to troops and conventional armaments would be preferable to an elaborate and difficult to negotiate "comprehensive" accord.

For the reasons cited previously, the Soviets have found the Western approach to MBFR singularly unattractive. In contrast to the modified "troops-only" solution favored by NATO, the Kremlin has insisted that any agreement provide for the reduction of not only men and equipment but also conventional and nuclear weapon systems. When the Warsaw Pact rejected the "Option III" proposal advanced by NATO in December 1975, it was specifically the failure of the plan to allow for a significant cut in Western air forces which seemed to underlie Moscow's negative reaction. The NATO delegations proposed the withdrawal of 29,000 American soldiers, 1000 tactical nuclear warheads, 36 surface-to-surface PERSHING missiles and 54 F4s, in exchange for the retirement of 68,000 Soviet troops and 1700 medium tanks.¹² In dismissing the offer, the Soviet press drew special attention to the fact that the provisions regarding the withdrawal of "nuclear delivery vehicles", including aircraft, were "insufficient"; the Kremlin pointed out that the socialist countries had consistently advocated in MBFR the reduction of "all nuclear ammunition" and "the means of delivering it to the targets."¹³ In Moscow's estimation, Option III fell far short of that requirement. In the almost two years since the submission of the NATO plan, neither side has appreciably amended its position nor come forth with a substantially new set of proposals.¹⁴

12. The International Institute for Strategic Studies, *Strategic Survey 1975*, p. 110.

13. Soviet irritation at the failure of Option III to provide for a significant cut in NATO aircraft was evident in an article by Igor Melnikov, in *Pravda*, December 29, 1975, entitled "On the Agenda — Military Detente."

14. In February 1976, the Warsaw Pact delegations did present a revised reduction proposal that called for a 2 to 3% cut in Soviet and American ground forces, to be followed in 1978 by a similar cut in indigenous European forces. The Pact also proposed the withdrawal of 54 F4 and Su 17/20 A

Although the causes of the deadlock in Vienna are numerous and diverse, the Soviet reaction to Option III suggests that it is extremely unlikely that any force reduction agreement will be forthcoming until the Central European FBS issue is resolved. The Soviet posture in MBFR also suggests that Moscow is prepared to delineate between the two varieties of Forward Based Systems in Europe: those which can be dealt with in Vienna and those which belong more appropriately in SALT. Should the Americans refuse to accept that distinction, the Kremlin will be encouraged to transfer the FBS problem, in its entirety, to SALT. Assuming these assertions are correct, there are perhaps three basic options for the Western negotiators. Their first choice is to maintain their present posture and face, in all likelihood, continued stalemate. Second, they could consent to an FBS reduction in Vienna and use that concession to bargain for compensatory (and perhaps asymmetrical) cuts in Pact armor, aircraft, artillery, and manpower. Depending on its composition, such a "mixed" formula could be acceptable to the socialist countries. The third option would be for the Americans to redefine all longer range Forward Based Systems as strategic weapons, detach them from the theater context altogether and seek to include them in SALT. Such a decision, while it might create more problems than it would solve, could facilitate the achievement of an MBFR agreement.¹⁵

Given the current East-West arms control framework, none of the options would be entirely satisfactory from the NATO and American viewpoint. Should the Western countries opt for the first alternative, they must be prepared to see the negotiations fail; the latter two would improve the prospects for an accord in Vienna, but at a cost which the NATO states might find prohibitive. Which of the three alternatives would best serve Western security interests is a decision that must be made collectively, and with care, by the relevant alliance members. There is, finally, a third arms control forum (apart from SALT and MBFR) that could be developed, within which the FBS problem could be addressed. This option is discussed in the conclusion of this paper.

and C tactical aircraft, 36 PERSHING and SCUD D surface-to-surface missiles, 300 American and Soviet heavy tanks and several NATO and Warsaw Pact surface-to-air missile batteries. The Western side rejected the offer later in the year on the grounds that the offer was prejudicial to the interests of the NATO countries, as it was based on the notion of equal rather than asymmetrical reductions. As of this writing, the West has not formally submitted a successor to the Option III proposal of December 1975.

15. The assignment of FBS to SALT would, at a minimum, disturb American allies in Europe, aggravate NATO military planners and complicate the comparability problem between the strategic forces of the United States and the Soviet Union. Were the United States to take such a step, the Americans might also expect the Kremlin to reverse its position on the "Backfire" bomber and consent to its inclusion in SALT. The Soviets would not, it seems safe to assume, find the American argument persuasive. Thus, while the MBFR talks might be made easier, the SALT negotiations might become all the more contentious.

THE SS-20 AND THE CRUISE MISSILE

The link between SALT and MBFR has become more direct, and more complex, within the last year as two new "grey area" weapon systems — the Soviet SS-20 intermediate-range ballistic missile and the American cruise missile — have begun to blur the traditional distinction between strategic and tactical nuclear weaponry. Clearly, both systems have the potential to disrupt the Vienna talks should either the NATO or Warsaw Pact delegations seek to ban or to limit their deployment through the negotiations. For several reasons discussed below, the force reduction conference is not the best forum in which to address and debate these two issues. Any attempt to expand the scope of the conference by including the SS-20 and the cruise missile would only make more onerous the task confronting the negotiators and postpone if not prevent the realization of an agreement.

With regard to the SS-20, considerable concern has been generated in the West by this highly sophisticated missile system, which is in essence an SS-16 ICBM minus a third stage. It is equipped with a MIRVed warhead and is being deployed in a land-mode.¹⁶ Although the missile will have an undeniable impact on the military balance in Europe and, perhaps more importantly, will intensify NATO's unease over Soviet intentions, for at least four reasons it is a poor candidate for consideration in MBFR. First, the SS-20 is positioned on the territory of the Soviet Union which geographically is not part of the "agreed reduction zone". Second, in terms of warhead yield and range, it is without question a strategic rather than a tactical weapon, for use against urban, industrial and military targets in the countries of Western Europe. Moreover, the missile's 2000 mile range could be increased to 3000 miles, simply by off-loading MIRVs, transforming it into a strategic system by the SALT definition.¹⁷ Because MIRV configurations cannot be ascertained by "national technical means," the United States could choose to argue that, regardless of Soviet claims, the SS-20 is in fact a missile with an intercontinental reach and therefore negotiable in a bilateral framework. Third, to raise the issue in Vienna would strengthen the Kremlin's argument for the incorporation of FBS in the force reduction talks; it could as well encourage the Soviets to call for inclusion of British and even French nuclear forces. Fourth, and most disturbing from an arms control perspective, since Moscow has paired the SS-20 with a land mobile launcher, constraints on deployment would be extremely hard to monitor; verification would be a vexing problem whether the venue were SALT or MBFR.

16. Information on the SS-20 is drawn principally from *Report of the Secretary of Defense, Donald H. Rumsfeld, To the Congress on the FY1978 (Military) Budget*, especially page 62.

17. *Ibid.*

To obtain effective constraints on the deployment of cruise missiles would present no less of a challenge to the delegations in Vienna. Due to their mobility and the ease with which they can be concealed, a numerical ceiling on cruise missiles would seem even less feasible than a limit on the SS-20. These remotely piloted, subsonic and highly accurate weapons can be fired from a variety of platforms, including surface ships, submarines, aircraft and land-based launchers. Without on-site inspection, the Soviets might contend that accurate verification, the *sine qua non* for any significant arms control agreement, would be an objective impossibility. The Kremlin might fear that after the conclusion of an accord cruise missiles could be stored in scores or even hundreds of depots in Western Europe, shielding them from detection by surveillance satellites. Gross violations could perhaps be ascertained, but a determined effort to circumvent the provisions of an agreement would have a high probability of success.¹⁸

It has also been suggested that it might be possible to ban either short or long range cruise missiles as the two versions employ propulsion systems which emit dissimilar infra-red patterns. While the "signatures" do differ and while the differences can be "seen" through surveillance, cruise missiles, unlike their ballistic counterparts, may not require flight-testing in the atmosphere. Their performance characteristics, it has been argued, can be adequately studied from tests conducted in windtunnels.¹⁹ The "tactical" and "strategic" distinction is further obscured by the fact that external dimensions of a cruise missile with a range of 600 kilometers are identical to one with a range of 2400 kilometers; similarly, it is virtually impossible to distinguish between a cruise missile armed with a nuclear warhead from one equipped with a conventional explosive.²⁰

For all these reasons, it seems beyond the competence of the NATO and

18. It should also be noted that the Western countries might be extremely reluctant to negotiate a ban on cruise missiles through an MBFR agreement. The West Germans, for instance, have expressed a strong interest in conventionally armed, land-launched cruise missiles as a means to bolster their defensive capabilities. Understandably, such a prospect deeply disturbs Soviet authorities. Moscow's anxieties aside, any American effort to incorporate cruise missiles in a force reduction proposal would first have to gain the approval of the Federal Republic which, in light of Bonn's security dilemma, might prove extraordinarily difficult to obtain.

The verification problems associated with the cruise missile are discussed in Robert L. Pfaltzgraff and Jacquelyn K. Davis, *The Cruise Missile: Bargaining Chip or Defense Bargain*, Institute for Foreign Policy Analysis, Cambridge, Massachusetts, 1977, pp. 49-50; and in Kosta Tsipis, "Cruise Missiles", *Scientific American*, February 1977, page 27.

19. There is disagreement among military specialists concerning the utility of testing cruise missiles in windtunnels. It appears that propulsion systems and some performance characteristics can be reliably tested in this manner, while guidance systems, for obvious reasons, cannot. Tsipis discusses the distinction between the infrared signatures of the turbofan engine (for use in shorter range cruise missiles) and the turbojet engine (for use in longer versions) on page 23 of his *Scientific American* article. Pfaltzgraff and Davis mention the ability to test cruise missiles in windtunnels on page 50.

20. Tsipis, *Scientific American*, page 21 (diagram).

Warsaw Pact representatives to negotiate verifiable limits on the cruise missile. The technical dimensions of these systems raise very real questions as to whether their proliferation can be controlled at all.²¹ The situation with regard to the SS-20 may not be quite as hopeless, although it is difficult to conceive of circumstances in which the Soviets would consent to a ban on the missile through the Vienna talks.

The emergence of cruise missiles and the SS-20 demonstrates that the process of technological change can produce weapon systems with important implications for both SALT and MBFR but which, for reasons discussed above, fit comfortably into neither. A failure to address this difficulty will further complicate the future of Soviet-American arms control.

CONCLUDING OBSERVATIONS

American perceptions notwithstanding, MBFR and SALT are linked. In political terms the linkages are somewhat intangible. The political momentum generated by the formulation of an agreement in one conference would not, in and of itself, promote consensus in the other; the issues which divide the negotiators in the two conferences do after all reflect substantive rather than cosmetic differences. In much the same way, a continuation of the deadlock in MBFR would not automatically doom the SALT process; the latter negotiations could continue and even prosper. The reverse would not hold true. Were the SALT talks to fail, the breakdown would almost inevitably worsen relations between the United States and the Soviet Union to the point that all East-West negotiations, political, economic, as well as in arms control, would be endangered.

The connection in military terms is much more direct. It is the American Forward Based Systems which constitute the most evident and the most important linkage between SALT and MBFR. The fate of the Vienna conference will depend in large part on whether or not the NATO and Warsaw Pact negotiators can successfully devise a mutually acceptable solution to the problem of FBS in Central Europe. Should the two sides prove unable to dispose of this aspect of the problem in MBFR, the Soviets will regard the entire FBS question as a legitimate topic for consideration in the bilateral

21. As of this writing (October 1977), the American and Soviet SALT negotiators have not been able to resolve the long-standing dispute over cruise missiles. It has been reliably reported, however, that the Americans are prepared to accept a range limit of 375 miles on sea-launched cruise missiles and a 1550 mile range limit on air-launched cruise missiles in the form of a three year "protocol" to a SALT II treaty, if the Soviets agree to furnish various assurances that the Backfire bomber will not be deployed in a manner threatening to the United States. Interestingly, it seems there have been no attempts in either SALT or MBFR to negotiate limits on ground-launched cruise missiles, a reflection perhaps of the verification problems discussed above.

framework. Thus, developments in the force reduction talks have had and will continue to have an impact on the proceedings in SALT.

Related to the second point, the impasse in MBFR is likely to persist until the NATO countries demonstrate a more flexible attitude toward a "comprehensive" reduction. The evidence suggests that the Kremlin will refrain from endorsing any accord that does not allow for a significant cut in nuclear and conventional weapon systems, in particular "dual-capable" aircraft. The Warsaw Pact delegations might be prepared to accept, however, a "mixed" reduction plan, if part of the mix included a ceiling on the NATO air forces. The dilemma confronting the United States and its allies is whether such a "comprehensive" approach to mutual force reductions conforms to their security interests. If the decision is a negative one, the Atlantic states might prefer to see the negotiations adjourn or the purposes and objectives of the conference redefined.

Another way to expedite progress in MBFR, and perhaps also in SALT, might be to convene an arms control conference which would focus on European-based nuclear systems. The United States, the Soviet Union, the United Kingdom, France and the Federal Republic would be the logical participants. Subject to negotiation would be all "tactical" aircraft with a combat radius in excess of a certain range,²² Soviet medium- and intermediate-range ballistic missiles (including the SS-20 if verification problems could be satisfactorily resolved), cruise missiles (if deployed in or around Europe) as well as British and French strategic nuclear forces. Such a conference could permit those American aircraft which pose a threat to the Soviet Union to be decoupled from both the Vienna and the SALT negotiations; constraints on the "Backfire" bomber might also prove easier to negotiate in such a setting than in SALT.

The political obstacles to the convocation of a European SALT would be considerable. The Western European countries have never expressed an interest in multilateral strategic arms negotiations; the French, in particular, might find the proposal distasteful, and regard it as an infringement of their autonomy in military affairs. It is suggested here only to stimulate debate and to encourage the exploration of ways both to surmount the stalemate in MBFR and to defuse the military confrontation between NATO and the Warsaw Pact in Europe.

22. NATO and Soviet aircraft with a combat radius greater than the distance between the eastern border of the Federal Republic and the western frontier of the Soviet Union could be included in such negotiations.