BUREAUCRATIC BEHAVIOR AND THE STRATEGIC ARMS COMPETITION

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ABSTRACT

The paper discusses the strategic arms competition between the United States and the USSR and the analytic treatment of this competition, especially in the public arms control literature. In the standard analysis, organizations and governments are treated as if they were individual decisionmakers. In reality the decisionmaking processes within the relevant governments and organizations are quite different. This paper makes an argument for the use of a model based upon studies of organizational behavior, which better reflects important aspects of governmental decision processes, and may more accurately forecast future developments. The paper applies an organizational process model to the strategic arms competition between the United States and the USSR and to the formulation of U.S. positions in arms control negotiations.

In contrast to the views of the strategic arms competition that dominate the public discussion, a few factual studies and the organizational process model suggest that the interaction process linking the evolution of the U.S. and Soviet strategic force postures is complex, proceeds through a variety of mechanisms, and in general proceeds at a slow and gradual pace. Additional conclusions are:

1. It will be more difficult to stop completely the strategic arms competition than most arms control advocates appear to suggest.

2. A knowledge of the organizational structure of Soviet military forces and the internal bureaucratic politics of arms control within the Soviet government would significantly alter the design of U.S. arms control proposals and negotiating goals.

3. Some early U.S. SALT I proposals were badly designed from the point of view of the interests of key elements of the Soviet bureaucracy.

CONTENTS

I. INTRODUCTION

The focus of this paper is the strategic arms competition and related matters: the interaction process between the U.S. and Soviet military postures, the conduct of the strategic arms limitation negotiations, and the more effective formulation of U.S. arms control proposals. Its major objective is to argue the usefulness and importance of changing the style of analysis that dominates public discussion of the strategic arms competition and of related arms control issues. The basic assumptions made by most journalists and academics about governmental decisionmaking tend to misrepresent the nature of the arms control problem. In almost all political-military problems, among the major actors are organizations or collections of organizations – for example, governments, military services, or military commands. But most analysts largely ignore the organizational character of some of the actors in the strategic arms competition, arms control negotiations, etc. Instead they employ a mode of analysis that treats large organizations and governments as if they were individual decisionmakers. Although this assumption can be useful for some purposes, I believe it is important in analyses of the strategic arms competition to consider how substantially the decisionmaking process within organizations differs from that assumed or implied in the standard analysis, i.e., the rational policy model.

The major thrust of this paper is to argue for an alternative form of analysis that recognizes the organizational character of the major actors and that incorporates this recognition in the analysis. Several alternative models have been developed that try to reflect more adequately the reality of governmental decisionmaking processes [1]. The alternative model of governmental decisionmaking that will be stressed here has been called the organizational process model. Developments in the study of organizational behavior provide a foundation for the development of this organizational process model. Moreover, there have been a number of successful attempts to apply this model to the analysis of governmental behavior [2].

What the rational policy model analyst [3] categorizes as acts and choices, the organizational process model conceives as outputs of organizations, or portions of organizations, functioning according to standard patterns of behavior. Faced with the problems of explaining the Soviet program to develop and deploy SS-9 missiles, an organizational process analyst would identify the relevant Soviet organizations involved in the sequence of decisions and in the processes of carrying out the program. He would display the patterns of organizational behavior from which the action probably emerged. He would make predictions which would identify the organizations likely to be involved in future decisions and program actions and the routine patterns of these organizations. The analyst could then use these predictions to produce forecasts of likely developments.

In addition to arguing for the usefulness and importance of applying this sort of analysis to the strategic arms competition and related issues, the paper will illustrate the use of an organizational process model in two areas: (1) analysis of the nature of the strategic arms competition between the United States and the Soviet Union, and (2) formulation of U.S. positions in arms control negotiations (these illustrative applications are clearly speculative in some cases). Finally, a few implications will be drawn about the nature of the current strategic arms competition, arms control negotiations, and SALT.

II. WHY AN ORGANIZATIONAL PROCESS MODEL?

Most analyses of the strategic arms race and related problems use the rational policy model [4]. I cannot prove that to readers here, but I hope that the discussion in the next pages will be suggestive enough that when readers next examine an article on arms control, they will judge for themselves the validity of that assertion. I believe they will find there are marked similarities among the arguments that various analysts use when they attempt to produce explanations and predictions of governmental actions related to the strategic arms competition, or in their analyses of alternative policies for arms control negotiations. Analysts assume that the behavior to be explained constitutes some calculated action, that it is the realization of some fairly easy to describe purpose or intention. They assume that the actor is a nation (or rather its government). The action is assumed to be chosen as a calculated response to a strategic problem. Explanation and prediction focus on the aggregate strategic costs and benefits to the nation, weighed by its government (treated essentially as though it is a single, unified decisionmaking unit), and assume that the choice will be (or was) one which maximizes benefits with respect to costs. This set of assumptions constitutes the frame of reference that has been labeled the rational policy model [5]. This does not deny that there are highly visible differences among the conclusions of various analysts. In most respects, differences among the works of foreign policy analysts could not be more salient. Appreciation of the extent to which each relies predominantly on the rational policy model, however, underscores the basic similarities among the assumptions, concepts and categories within which most analysis of the arms competition and related matters proceeds.

In the limited space available here, my purpose is mainly to convey to the reader a grasp of the rational policy model and a challenge: examine the literature with which you, the reader, are most familiar and then make your own judgment. In that examination, the reader should keep in mind that most analysis contains many things besides explanations and predictions. But if he will focus on the explanations and predictions in the next few articles on foreign affairs or Congressional testimony and ask himself what set of assumptions governs these efforts, I believe he will accept the proposition [6].

Let me also say that there are a number of variants of the rational policy model, and they can be illustrated briefly with examples relevant to the arms control literature. One variant is that which focuses upon the national actor and his choice in a particular situation and introduces further constraints upon the goals, alternatives, and consequences considered. (1) National propensity as personality traits, perhaps as reflected in a specifically national operational code, may be introduced as a refinement to the universal rational actor; or (2) certain objectives historically exhibited by specific nations can be taken into account; or (3) special principles of action are used which narrow the goals, alternatives, or consequences assumed to be operative. For example, the Soviet deployment of ABMs is explained by asserting that the USSR is more "defense minded" than other nations. Or a particular Soviet action is explained as an instance of a special rule of action in the Bolshevik operational code.

A more complex variant of the basic rational policy model recognizes the existence of separable actors within a government, for example, hawks and doves or military and civilians. This model variation explains, or predicts, an occurrence by reference to the objectives of the victorious subgroup. Thus, for example, revisionist histories of the Cold War assume the existence of forces of light and forces of darkness within the U.S. government, and explain U. S. action by reference to the goals and perceptions of the victorious forces of darkness. In some current analyses of the Soviets there are references to hawk and dove factions, or within the Soviet military establishment analysts distinguish traditionalists and modernists [7].

What is wrong with the rational policy model? Although a maximizing model may be adequate for explaining and predicting some government actions, casual empiricism leaves no doubt that the actual processes by which government actions are decided upon and executed are not well described by the model of rational choice. Governments consist of individuals and organizations with different goals and objectives, with different perceptions of the alternative actions open to the nation, with different estimates of likely consequences for each course of action, and with different preferred choices of what ought to be done. Moreover, implementation of governmental decisions consists not of the specifically tailored implementation of formal governmental decisions, but is accomplished by the routine behavior of large organizations which are assigned responsibility and use their existing programs. It is not just that the rational policy model is not a good description of decisionmaking within the government bureaucracy; its explanations and predictions are often inaccurate and misleading. In particular, in the case of the strategic arms competition there have been a few conventional studies that have focused upon the nature of that competition. They suggest the limited explanatory and predictive power of the rational policy model.

The arms control advocates, on the whole, focus upon the growth of strategic forces and the continuing advance of weapons technology. Their arguments have gained a great prominence. There are repeated claims that arms budgets are expanding, and attention is drawn to an assumed action-reaction phenomenon that supposedly links decisions on both sides of the U.S.-Soviet strategic arms competition. It is striking how little data are presented to support these assertions. The views on these issues that dominate the public discussion are substantially exaggerated and misleading.

John Despres reports on a statistical analysis of data on defense budgets in the United States and Soviet Union. It shows that the interaction process, at least as reflected in the budgets of the two sides, is different than usually described. Moreover, the character of that interaction has probably shifted over the course of the last 20 years. Models that assume an immediate reaction of Soviet budgets to U.S. budgets do not fit the data as well as more complex models designed to reflect reactions extending over a period of time. Another finding is that Soviet reactions in the 1950s differ from those in the 1960s. In particular, these analyses show that since 1960 Soviet military budgets have been linked more closely to the growth of Soviet gross national product than to U.S. military budgets.

That there should be little relationship between total military budgets is not surprising. Models of the process by which defense budget totals are set in the United States indicate that the total U.S. defense budget in peacetime is mainly determined by factors other than the Soviet military budget. There is no particular reason to expect that Soviet budgeting procedures are more sensitive than our own to the activities of their main competitor. In any case, the more serious studies of the strategic arms competition, and in particular of the interaction process, uniformly conclude that the U.S.-Soviet strategic arms interaction process is a much more complex, slower moving process than is suggested by the most prominent arms control advocates [8].

The most striking argument against the action-reaction theory is this: if the action-reaction process were as simple, straightforward, and unvarying as is suggested, it would be a marvelous aid in forecasting future Soviet military force posture. What is the evidence that the use of this assumed action-reaction process has allowed anyone to make good forecasts of Soviet military programs?

The fundamental problem with the rational policy process model as applied to strategic arms competition is that it is a highly simplified model trying to explain, or predict, the evolution of an extraordinarily complex process. Clearly in the Soviet Union, as well as in the United States, the strategic force posture results from a complex decisionmaking, budgeting, and programming process that involves many different organizations with different interests and different amounts of leverage on the final outcome. In the course of the research and development, procurement, deployment, and operation of a weapons system, many different and largely separable decision processes operate at the various stages. The decision processes that lead to the development of new technology relevant to military uses and then to the development of finished weapons systems take place to a large extent within organizations that are quite separate from those that ultimately deploy and use the weapons system. Moreover, the force posture at any one time is made up of many different weapons systems. What has to be understood is the process of change of the whole force posture, not just the few weapons systems that get most public attention.

While the rational policy model has some areas of preferred use, for example in making some kinds of longer-range forecasts, in the formulation of U.S. policy, or in some aspects of top level decisionmaking in times of crisis, the evolution of force posture is preeminently the area suitable for the organizational process model. There are many organizations involved with strong interests. They have many opportunities over prolonged periods of time to work for the attainment of their goals. Military services have within them firmly established operational elements, such as tank divisions or air regiments. They produce a strong demand for the regular replacement of their weapons systems by newer models. Moreover, if a service does not succeed one year in getting the replacement or desired new weaponry, there is always next year and the year after that. Thus, persistent lobbying by the organizations that produce weaponry such as the weapons design bureaus, and persistent pursuit of deployment by user organizations can eventually have a very significant effect upon force posture decisions, even if those decisions are made formally

by top level governmental leaders. On the other hand, the behavior of a government in a short, intense political-military crisis probably cannot be explained very well using an organizational process model. There are only a relatively small number of decisionmakers involved and the nature of the crisis and its intensity may force high level national policy considerations to the fore. But even here Graham Allison's work on the Cuban missile crisis shows that the use of an organizational process model, or a third model – that of bureaucratic politics – does illuminate many U.S. governmental decisions in that crisis.

In order to understand the nature of the arms competition, or the interaction of Soviet and U.S. postures, we require an improved understanding of the decisionmaking processes within the relevant parts of Soviet political-military organizations. Much effort has been devoted to finding ways of answering the question: "What would the rational Soviet planner do?" Very little systematic effort has thus far been applied to answering the more relevant questions. (1) What are the Soviet decision processes really like? (2) How might a complex Soviet bureaucracy respond to particular U.S. strategic force posture choices?

Can we in fact come to know, or to infer, what the Soviet decision processes are really like? Can we substantially improve our ability to forecast how the complex Soviet political-military bureaucracy is likely to respond to particular U.S. program choices? The answer to these questions is a qualified yes. We cannot give adequate answers now. We know, or can demonstrate, that the simple models provide inaccurate descriptions, give inaccurate forecasts, and offer weak explanations of past Soviet force posture developments. Some progress has been made in developing hypotheses about relevant Soviet decisionmaking processes and in understanding their patterns of behavior. The main danger to be avoided is the projection of U.S. organizational processes, and bureaucratic politics, on to the Soviets.

III. WHAT CAN BE SAID ABOUT THE GENERAL NATURE OF THE INTERACTION PROCESS AND OF THE STRATEGIC ARMS COMPETITION?

The general picture of the joint evolution of the two force postures over time and of the interaction process between them, appears best summarized in the following way. Both the U.S. and Soviet military establishments are involved in a continuous process of adapting to changing environments, part of the environment being the military posture of its chief opponent. (In the future, however, the strategic forces of China will also need to be considered, especially in studies of the Soviet decision processes relevant to strategic forces.) The adaptive process also involves responses to technological change and changes in the worldwide political environment. The new technology available in both countries is in part the result of a competition in the development of military-related technology—a competition that has a momentum of its own—and in part a by-product of the general advance of science. Perceptions of threats in the worldwide political environment influence the size of the total defense budget, producing from time to time periods of budgetary expansion and contraction.

The process of adaptation involves periodic major adjustments in objectives, military strategy, and major programs—perhaps even, though more rarely, substantial reorganization of the military establishment itself. These periods of major adjustment arise irregularly, and decisions regarding adjustments are made mainly by the upper-level decisionmaking strata within the governments. A major adjustment may be triggered by the availability of new revolutionary technology, by conditions that lead to changes in total military budgets, or by a critical event such as the Cuban missile crisis. Between periods of major adjustment, there is a steady process of change and adaptation accomplished by the routine functioning of the decision processes within the relevant organizations.

Both the Soviet and U.S. military establishments are clusters of organizations, interconnected as regards perceptions and stimulation to adaptive changes. A picture of either side's adaptation process as rational centralized planning must be rejected, except perhaps during a period of major adjustment. The interaction process in general cannot be pictured as one in which changes in the other nations' forces are perceived centrally at a high level, appropriate countering force posture changes decided upon, and orders transmitted to lower levels for implementation. Rather, the perception of force posture changes in specific parts of one nation's military establishment is likely to be centered in a specific set of sub-organizations in the other nation's military establishment. Each of these sub-organizations, such as the five Soviet military combat services and their component branches, will have its own set of perceptions regarding changes in specific parts of the U.S. force posture. Each of the Soviet military services or their component branches will have its own goals and aspirations, especially with regard to an increased budget and new programs it wants to have authorized and funded. Only in part are these

new programs likely to be designed solely to meet changes in those areas of the U.S. military establishment where the Soviet component focuses its attention.

The nature of the budgeting and programming process within the Soviet military establishment will greatly affect the degree to which a specific change in U.S. force posture, perceived by a sub-part of the Soviet military establishment, will lead to a change in Soviet programs. Some changes in U.S. posture are likely to go unnoticed, or if noticed, to be responded to rather weakly. No single Soviet organization may be sufficiently interested in the changes or in the problem raised by specific changes in U.S. military forces. Or the particular Soviet organization that is interested, because of its assigned or chosen roles and mission, may not be in a good position to push for additional funds and new programs at the particular time when the change in U.S. force posture takes place. Or it may be that other problems dominate the internal decisionmaking process of the Soviet military establishment at that particular moment and absorb all available resources. Or it may be a time of budgetary retrenchment, or a new budgetary ceiling may have been imposed after a period of rapid budgetary increase. In that case, ongoing and partly completed programs will have priority over new programs and will probably exhaust the resources available.

Changes in U.S. force posture can more easily increase resources going into a particular Soviet program than reduce them; there is ratchet effect at work. When a change takes place in U.S. posture or is publicly proposed, the interested sub-part of the Soviet military establishment can use this to make a case for what it will describe as appropriate changes in Soviet military programs. It will undoubtedly suggest increases in its own programs; it is not likely to suggest that its funds be reduced.

Thus thinking about the possible effects upon Soviet military posture caused by specific changes in U.S. posture, in an organizational process model analysis, one would ask these questions. (1) What organizational sub-parts of the Soviet military establishment are most likely to perceive this change? (2) What are their current organizational goals? (3) What opportunities have they to react to the U.S. change (is the Soviet military budget going up, staying stable, or going down)?

These are appropriate questions if the change in U.S. posture envisages a new program or modernization of some part of the U.S. forces. What of U.S. decisions to reduce forces or military expenditures? It is doubtful that there will be any immediate or near-term impact on Soviet military programs. Eventually, as U.S. military programs decline, there may be some reason to believe that the total Soviet military budget will either stabilize or be reduced. There are other uses for these resources, and U.S. restraint can add to the effectiveness of those interest groups and Soviet leaders who will have an interest in arguing for the diversion of such resources for non-military uses.

This general picture of the evolution of the military forces and the interaction process does not mean that there is no interaction, only that it is complex and proceeds through different mechanisms. Studies of the process do suggest that there is an interaction, but that it is slower acting and more complicated than usually alleged. Moreover, it is likely that the interaction differs for the different decision processes. There probably is a good deal of emulation in the area of military R&D and in basic technology. On the other hand, Soviet and U.S. weapons systems and programs seem substantially different from one another and appear to interact much less clearly. But there are also differences from area to area. There appear to be some stable Soviet reaction patterns in the area of tank design, countering changes in U.S. or British tanks. There is undoubtedly a good deal of tactical interaction, either in the deployment of forces or in changes in aspects of forces already in the field to adjust to new information concerning particular technical characteristics of the opposing forces. If the Soviet Union alters its radar frequencies, the United States will alter its countermeasure equipment or practices. A systematic study of the interaction process would have to focus separately upon the many distinct decision processes that deal with technology, weapons R&D, procurement, operations, etc. Each of these areas arrive at decisions in different ways by different processes involving different parts of the complex organizations on both sides. We do not know enough about the Soviet organizations and the relevant Soviet decisionmaking processes to carry through this sort of analysis in any detail with high confidence. Indeed, we do not understand the U.S. processes adequately despite the amount of anecdotal material available. There are few if any systematic studies available [9].

In general, we do not fully understand the nature of the strategic arms competition, and we need a first rate detailed study of the past 25 years of that competition to even get the facts clear. Such a study would not only be useful in setting the record straight as to the general nature of the competition, but a detailed effort to look for a variety of interactions and to characterize them, would be extremely valuable. However we already know enough about the way the Soviet Union is organized, and to some extent the way in which its military R&D is carried out, to make some significant statements about the likely Soviet behavior. Also we are now much better off than we were a number of years ago because of the improved knowledge about decisionmaking in large organizations in general. A number of useful insights are available so that only moderately detailed information concerning organizational structure, career patterns, reward and punishment systems, and budgeting processes might allow us to make very useful inferences about likely Soviet decisionmaking processes.

IV. IMPLICATIONS

What are the implications for arms control of apparent differences in the governmental organizations and in the decisionmaking processes in each of the major competitors? Some views are presented here under three headings:

- —the future of the strategic arms competition and the role of arms control measures;
- —implications for arms control negotiations generally;
- —comments on SALT.

A. The Future of the Strategic Arms Competition and Arms Control Measures

The organizational process model, with its stress upon the largely internal factors that provide a good deal of the momentum for programs in both countries, suggests that arms control measures will limit but not end the strategic arms competition. No doubt the areas of competition and, to some extent, the intensity of the competition can be modified by agreements, tacit understandings, and other measures of arms control. However, it is very difficult to see how the strategic arms competition could be completely stopped. It also suggests that unilateral acts of forebearance or restraint are much less likely to have a significant impact than many of those who advocate such measures appear to suggest. Especially, attempts at tacit influence by means of subtle signals to the opponent seem less promising than often suggested.

Those people who press most for arms control measures make stopping the arms competition appear too easy. They tend to suggest that unilateral acts will help, and that to a large extent we have been racing with ourselves and provoking Soviet programs in response to our own [10]. Moreover, they often tend to be optimistic about the ease with which the negotiations can lead to effective agreements. If we understood much more than we do now about the nature of the strategic arms competition, we would have much better perspective on the difficult problems that lie before us in achieving increased control over the joint evolution of U.S., Soviet, and eventually Chinese strategic forces. An overly optimistic view of what is required to control the competition does not serve the interests of the United States, nor of effective arms control.

The existing factual studies suggest that the stability of the strategic arms competition is not in critical danger; U.S. program choices do not stimulate immediate and larger Soviet responses. But to the extent that there is a complex interaction process, and we were to understand it, we might be able through our own program choices gradually to guide the joint evolution of the force postures in directions preferred by the United States. Among these objectives would be strategic forces which minimize the probability of nuclear accidents, escalation, unauthorized use, etc. The United States would prefer forces subject to centralized, responsible control both in peacetime and after hostilities start, should that occasion arise.

U.S. goals in the strategic arms competition include not only those relating to stability and to safer and more controllable force postures, but also the goal of the United States as an efficient and effective competitor in the process of developing, procuring and operating strategic forces. The attainment of some U.S. political and military goals has to be weighed against an increased risk of intensifying the competition in some cases. We cannot afford to price ourselves out of this competition, nor can we allow our competitors to impose upon us costs that we do not reciprocally impose upon them.

In summary, it will be much more difficult to stop completely the strategic arms competition than most arms control advocates suggest. Detailed studies of the strategic arms competition, and in particular the interaction process, are needed to understand more fully the probable effectiveness of arms control measures. Organization model analysis suggests that the strategic arms competition is more stable than usually believed. To some extent the existence of interaction represents an opportunity, if we more fully understood it, to control, and guide cautiously, the joint evolutions of U.S., Soviet and eventually Chinese strategic forces. But the nature of the interaction process does not suggest that it will be easy to influence the force posture of the other side by unilateral action. In particular, restraint seems less likely to be effective than measures which lure the competitor into using resources as inefficiently as possible in deploying his force. The United States must clarify the priority of the many goals affected by its strategic force programs.

B. Implications for Arms Control Negotiations Generally

What are the major implications of viewing the Soviet government as a complex bureaucracy when addressing problems of arms control negotiations? First, such a view of the nature of the other side in the negotiation debunks the notion that a principal output or result of negotiations is the education of the Soviets and the Soviet leadership in particular. This has often been a theme in justifying negotiations and in discussion of the tactics of arms control negotiations. Repeatedly the notion has been expressed that the Soviets have had intellectual lag in their understanding of the nature of modern strategic warfare. Hence a presumed effect of negotiations has been one of clearing up their minds about these issues. True, the discussion or analysis of one strategic warfare problem in the Soviet Union may have lagged behind that of the United States. However, it is not at all clear that the Soviets have been intellectually backward. Their doctrine with regard to strategic warfare has been different than ours, but many features of Soviet doctrine do not appear at all inferior in the understanding of the issues involved. Whatever one's judgment in this matter, it is very doubtful that negotiations with the United States play a significant role in the education of the Soviet political or military leaders. Moreover, the value of specifically educating the Soviet leadership would appear to be less than usually supposed, if their force posture is heavily influenced by the various bureaucratic interest groups within the Soviet military establishment and the associated industrial ministries.

If the objective of the negotiations is less that of educating the Soviet leadership than concluding an agreement with the Soviet government, an informed view of the Soviet governmental bureaucracy, and of its problems in designing negotiation positions and in dealing with U.S. proposals, is important and useful. The top Soviet leadership may share a concern with U.S. leaders concerning the strategic arms competition. They may be interested in restraining military budgets if they can. But the organizational process model suggests that the evolution of the Soviet strategic force posture is responsive to the organizational interests of major subparts of the military establishment. Current deployments are to a large extent the consequences of major R&D programs begun many years earlier and which have created during the long and expensive R&D a strong momentum toward their completion. They are difficult to cut off.

In any case, in trying to devise U.S. policy and tactics for arms control negotiations, an organizational process model analysis would focus attention on different issues than those of main concern in rational policy model analysis. In the first place, an analyst using an organizational process model would suggest some caution as to the goals to be set for the negotiations. It is doubtful that one could get top Soviet leaders to agree to the removal of weapons and installations already in place, or for which construction is under way, for example, the ABM deployments around Moscow. Moreover, even if the Soviet leaders agreed, those leaders might have some trouble in enforcing the agreement over time. Secondly, the organizational analyst would make an effort to understand the Soviet leaders' problems within their organizational-institutional framework as a basis for planning U.S. policy, specific arms control proposals, and negotiation strategy. The Soviet military establishment generally would be opposed to the arms reduction or freezes that are likely to be the objectives of the negotiations. The PVO and other associated organizations will be especially concerned about the ABM issue. The Strategic Rocket Forces will be concerned about any proposals to put all of the offensive ICBM forces on navy-controlled submarines. It is very important to try to understand these internal and bureaucratic political problems as they are likely to arise in real life, and to avoid stereotypes and pseudo actors, e.g., hawks and doves. The objective of U.S. analysis would be to localize particular interests as sources of resistance in some congruence to existing organizational and institutional features of the Soviet military establishment. The goals that one can reasonably set for the negotiations and the tactics and policies would be considerably influenced by the perceived nature of the organizations and decisionmaking processes within the Soviet government.

C. Comments on SALT History

It may be useful if only in a very speculative but concrete way to apply some of these ideas to an interpretation of the early stages of the SALT I negotiations. Some interesting hypotheses emerge that may suggest explanations of Soviet resistance to specific U.S. proposals for the limitation or control of strategic offensive forces.

To start with, consider the Soviet Rocket Forces (SRF). It is one of five combat services of the Soviet military forces. The SRF appears to have been created in 1960; at that time it controlled all strategic missile forces. When the new service was created, Khrushchev placed great stress upon the exploitation of the new missile technology. Nuclear rocket forces were now the decisive revolutionary weapon. The creation of the SRF also was related to an attempt to economize on other parts of the Soviet forces. At the time, the Strategic Rocket Forces were designated as the most important and primary force among all of the previously existing elements of the Soviet armed forces. While there is some uncertainty as to whether the SRF has maintained this rank in the bureaucratic pecking order, it remains a very high prestige organization. Hence, if its interests are touched in the SALT negotiations, its views would carry considerable weight.

In considering the current and prospective situation of the SRF, one finds it has a number of problems. First, technology is moving in directions that will increase the vulnerability of fixed base missile systems. This does not mean that CEPs will go down as rapidly as sometimes assumed, but the general trend is against fixed base systems. Nor does it mean that there are not counters available, such as hard point defenses, increased hardness, and concepts like shelter based systems. But current fixed based systems are threatened because of trends in guidance technology.

Second, in contrast with all of the other Soviet combat services, the Strategic Rocket Forces' future existence depends upon the continued viability of one military technology. They are purely a missile force. All of the other services have several branches or suborganizations, based upon many different technologies embodied in many weapon systems to carry out their missions.

Third, when the SALT negotiations began, U.S. proposals suggested control of the total numbers of strategic offensive weapons, and that all strategic offensive weaponry be moved to sea. Such proposals would naturally be resisted by the U.S. Air Force, but even more so, they would be resisted by the Soviet Strategic Rocket Forces. The U.S. Air Force has, in addition to the land based strategic missile forces, a long range bomber component, tactical air forces, and many other missions that it carries out. The SRF is a very narrowly based organization. U.S. SALT proposals called, in effect, for its abolition. This is not exactly the case since the SRF includes a medium range missile component as well as ICBMs, but nonetheless the U.S. proposals involved a very substantial reduction in their forces and the loss of the most important mission they have. Moreover, initial U.S. proposals included, because of the problems of verification, the forbidding of land mobile missile systems. Yet this is a direction that the Strategic Rocket Forces may wish to go in order to offset the problems they now have with the fixed base systems.

With this background, perhaps we can understand what appears to be the Soviet resistance to the forbidding of mobile systems and their disinterest in the all-sea-based notions of the United States. Organizational analysis suggests that the design of the early U.S. proposals were dominated by abstract no-

tions of optimally stable force postures, which assumed complete flexibility in the organizational reactions of U.S. and Soviet strategic forces. It suggests the source of what appears to be the reluctance of the Soviets to agree to U.S. proposed limitations upon offensive systems as contrasted with the defensive systems. And it suggests a basis for the depth of the Soviet resistance to some specific features of early U.S. proposals.

This interpretation is clearly relevant to only a part of the history of the SALT negotiations. However, it is interesting that some of the most forthright public resistance to arms control measures have been in the speeches of Marshall Krylov, the head of the Strategic Rocket Forces. It also suggests, if correct, how sensitive prospects for progress in arms control may be to the way in which military forces are organized, and how the roles and missions are divided among the service organizations. If we are to be more effective in the design of U.S. proposals and in U.S. negotiating tactics, we may have to have a much clearer picture of the interests of all of the parties concerned on the Soviet side, and of their probable effectiveness in influencing the decision-making process within the Soviet government.

SOURCE NOTES

1. Graham T. Allison, *Essence of Decision: Explaining the Cuban Missile Crisis*, Boston, Little Brown, 1971.
2. See in particular, G. T. Allison, *ibid.* J. P. Crecine and Gregory Fischer, *Resource Allocation Processes in the U.S. Department of Defense*, Ann Arbor, Institute of Public Policy Studies, University of Michigan, 1971. Richard Neustadt, *Alliance Politics*, New York, Columbia University Press, 1970. T. W. Wolfe, *Policy Making in the Soviet Union*, P-4131, Santa Monica, The Rand Corporation, 1969. T. W. Wolfe, *Soviet Interests in SALT: Political, Economic, Bureaucratic and Strategic Contributions and Impediments to Arms Controls*, P-4702, Santa Monica, The Rand Corporation, 1971. Arthur J. Alexander, *R&D in Soviet Aviation*, R-589-PR, Santa Monica, The Rand Corporation, 1970. This is only a limited list of a growing literature applying an organizationally oriented analysis of governmental behavior.
3. Analysts who employ this conceptual model conceive of national behavior as the more or less purposive choice of a unified rational actor. The point of an explanation for these analysts is to show how the nation or government could have chosen the action in question, given the problem that it faced. Predictions are derived by calculating the rational choice for a nation (given specific objectives) in a given situation.
4. Of course this is not the only area where the rational policy model is dominant, nor is it only advocates of arms control that use it. Those who oppose arms control do so as well.
5. Graham T. Allison, *op. cit.* See also Leon V. Sigal, "The Rational Policy Model and the Formosa Straits Crises," *International Studies Quarterly*, XIV (June 1970).
6. For a somewhat parallel overview and critique of the standard arms race analysis, see Colin S. Gray, "The Arms Race Phenomenon," *World Politics*, XXIV (October 1971).
7. See Jeremy J. Stone, "When and How to Use SALT," *Foreign Affairs*, XLVIII (January 1970), for an example of this sort of analysis. The major difficulty with this sort of a disaggregation of a government is that it produces pseudo actors, not having a clear status as major organizational entities, or key officials in the decisionmaking process.
8. See for example, Richard B. Foster, "Arms Control Prospects for the 1970's," in W. R. Kinter (ed.), *Safeguard: Why the ABM Makes Sense*, New York, Hawthorne Books Incorporated, 1969, based upon SRI studies of the interaction process.
9. An exception is the study by Major Richard G. Head, *Decisionmaking on the A-7 Attack Aircraft Program*, unpublished thesis, Syracuse University, 1970.
10. See for example Herbert York, *Race to Oblivion*, New York, Simon and Schuster, 1970, who espouses this view. The book contains his picture of the forces within the United States that drive U.S. programs forward. He appears to assume that the Soviet bureaucracy behavior is rather different and that restraint on our part will be effective.