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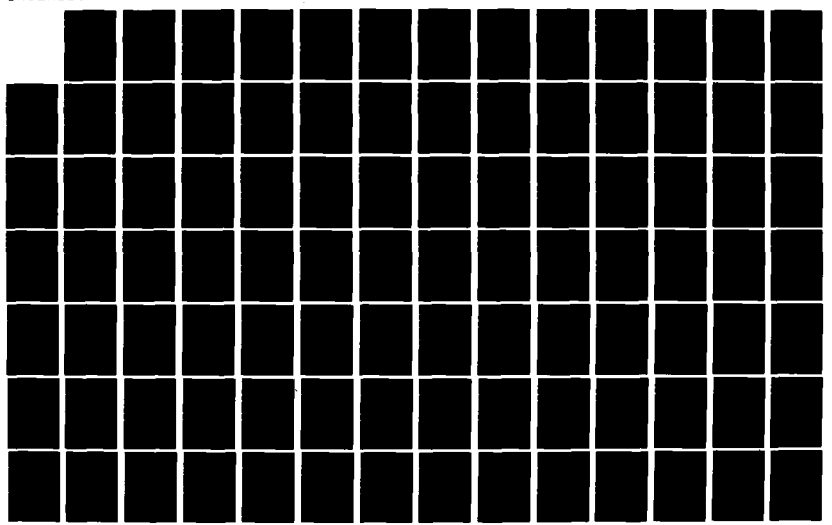

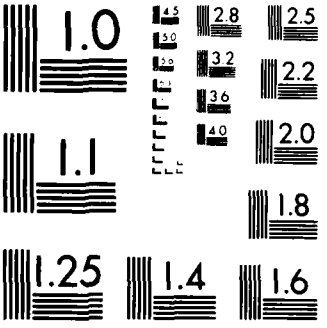

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SOVIET THEATER NUCLEAR FORCES' ISSUES

Norman Friedman
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1 December 1979

Final Report for Period 1 September 1978—30 November 1979

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This study examines the Soviet approach to transition from conventional to theater nuclear war in the context of Soviet political and military style. The factors governing the Soviet approach to nuclear transition are examined in Part 1 of the study. Part 2 explores a wide array of incentives and disincentives for Soviet nuclear transition and suggests ways in which NATO actions can affect the balance of incentives and disincentives facing the Soviet planner. Part 3 integrates and summarizes the conclusions of Parts 1 and 2, and suggests measures for NATO action.

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EXECUTIVE SUMMARY

This study examines the Soviet approach to transition from conventional to theater nuclear war, in the context of Soviet political and military style. The analysis suggests that Soviet transition would be determined by considerations of military expediency in the contest of political objectives that would be far from satisfied by a return to the status quo ante.

In Part I of the study the usual assumption that the Soviets would preempt at transition is set in the context of Soviet political and military theory. The Soviet approach to theater war and nuclear transition is a reflection of the distinctive Soviet style of war and seminal enduring characteristics unique to Russian/Soviet history and society, and the Soviet political system.

While a comprehensive set of factors is examined in the analysis, the Soviet approach to theater war and nuclear transition is informed fundamentally by two essential determinants:

-- Soviet political objectives.

-- Soviet views of the "revolution in military affairs," and the consequences of TNF use.

The recourse to arguments of Soviet military and political style is an attempt to reach conclusions likely to be valid even under the shifting economic and demographic conditions of the 1980s.

Rejection of the political status-quo would animate Soviet behavior in war. It is not implied that the Soviet Union would provoke an undertaking as "adventurous" as war, indeed Soviet military behavior would probably be responsive to perceptions of a severe Western threat. Therefore, it is likely that the Soviet threshold for transition from a political to

a military solution is quite high. However, once that threshold is crossed, the only acceptable objective would be substantial progress in overturning the political status quo. Once Soviet political leaders decide upon a military solution in Europe, Soviet behavior would not correspond to the quickest termination of hostilities, but the quickest termination compatible with political objectives.

Soviet military science attributes potentially decisive military effects to nuclear use. Because TNF are viewed as potentially decisive, Soviet nuclear transition would be likely to entail a preemptive strike against NATO nuclear assets. Soviet transition would anticipate NATO nuclear release, evidence of which would force Soviet preemption. Soviet leaders would regard preemption at transition as absolutely necessary for the retention of military advantage adequate for the accomplishment of political objectives. It is quite possible that Soviet transition would not occur at the outbreak of hostilities. Rather, because of the potentially negative effects of premature nuclear use, Soviet doctrine envisages the possibility of an initial conventional phase.

Discussion of the operational requirements of the Soviet approach to transition reveals demanding criteria, and possible incongruities between doctrinal principles and likely operational realities: Soviet intelligence must be capable of successfully anticipating NATO TNF release; the Soviet chain-of-command must operate quickly enough to catch NATO TNF on the ground lest NATO first-use spoil the Soviet offensive; Soviet political leaders must be quite confident in the reliability of their intelligence operations.

The Soviet approach to transition logically entails four general and potentially exploitable problems:

-- the necessity for Soviet intelligence to anticipate successfully NATO transition intentions.

-- the necessity for the Soviet chain-of-command to act more rapidly than NATO once its nuclear release decision is determined.

-- the inadequacy of Soviet doctrine to address the possibility of a NATO nuclear release at the outset of conflict.

-- the extremely effective preemptive transition required in light of the Soviet doctrine of massing firepower for conventional operations (i.e., massed Warsaw Pact forces would provide high value targets for surviving NATO TNF).

However, it is necessary also to consider a much wider array of the incentives and disincentives for Soviet nuclear transition. Part 2 of the study is a comprehensive approach to this issue and suggests ways in which NATO actions can affect the balance of incentives and disincentives facing the Soviet planner.

A degree of skepticism must accompany any attempt to identify the Soviet approach to TNF employment as a rigid single-variant doctrine. Two factors render somewhat tenuous any specific predetermination of Soviet intentions for TNF use: the inferential nature of available evidence, and the probability that the political circumstances pursuant to the outbreak of conflict would shape the incentives/disincentives for transition. There can be no certainty as to whether or not the Soviets anticipate being compelled to wage war in Europe, nor if they envisage its particular political context.

However, while acknowledging the methodological constraints, it is argued that the Soviet General staff has determined a set of "school solutions" to TNF use. Theater nuclear doctrine has been integrated into general combined arms concepts, and military solutions have been designated for anticipated military problems.

A detailed discussion of the multiple sources of evidence used to analyze Soviet theater doctrine illustrates the difficulty of predetermining Soviet intentions. Five indicators of Soviet theater nuclear doctrine are analyzed: military literature, the Soviet force posture, military exercises, strategic culture, and military rationality. The thrust of this analysis of methodology is to the effect that:

-- Soviet military literature, while of value, may--on occasion--be more misleading than useful because Western readers are far removed from contemporary Soviet debate and strategic culture, and may easily neglect the fine linguistic nuances, codewords, and allusions often used.

-- The Soviet theater force posture is characterized by such potential operational flexibility that its utility as reference for precise identification of any particular doctrinal orientation is limited.

-- The utility of Soviet military exercises is somewhat lilmited because the Soviets exercise a whole range of scenarios, and must recognize the significance of information revealed.

-- An understanding of, and empathy for, Soviet strategic culture is perhaps the most valuable means of determining the Soviet "way of war" and approach to theater nuclear employment.

-- Military common sense, although obviously scenario-dependent, is useful in light of the apolitical Soviet approach to military science.

An examination of Soviet strategic culture permits a prediction of the general type of war the Soviets would be likely to wage. The Soviet Union would prefer to avoid the risk of war with NATO. However, although slow to anger, if the Soviets were to decide upon war, subsequent Soviet behavior would be determined by military expediency. They would seek to take and hold the initiative, and defeat the enemy decisively.

A "clash" of the Soviet and Western nuclear employment doctrines could be disastrous for the latter. The Western concepts of pre- and early-war deterrence bargaining probably are inappropriate because, once the

Soviet Union crossed the nuclear threshold, it would be very unlikely to have any military objective in view short of victory. The sophisticated Western concept of intra-war bargaining would likely be lost upon an opponent whose behavior would be determined by military science and not political statecraft. During actual warfare, Soviet political leaders could acquire an immediate keen interest in Western intra-war deterrence concepts. However, the rigidity of Soviet pre-war planning, and the lack of initiative inspired by the Soviet political system, are factors considered to minimize the probability of such an event.

A detailed analysis of probable Soviet incentives or disincentives to cross the nuclear threshold is presented.

Incentives

-- To solve a military problem.

-- To deny NATO the military benefits of the first-strike initiative.

-- To economize on time.

-- To economize on expenditure of military assets.

-- To avoid destruction by anticipated NATO TNF employment.

-- To respond, minimally, to NATO nuclear escalation.

-- To assume escalation dominance following NATO first use.

-- To implement rigid war plans.

-- To fragment NATO.

Disincentives

-- To avoid licensing NATO use of TNF

-- To minimize the prospect of a very punishing NATO preemptive TNF strike.

-- To avoid the uncertainties and unknowns of theater-nuclear warfare.

-- To economize on the loss of lives and equipment.

-- To avoid possible escalation to homeland-to-homeland nuclear employment.

-- To avoid intra-Warsaw Pact alliance strain.

-- To permit optimum efficient use of non-nuclear forces.

-- To avoid terrain/structures damage that could impede the pace of advance.

-- To preserve Western Europe as a prize or recovery base.

Part 2 concludes that although nothing is certain, NATO should plan according to a principal scenario of Soviet theater doctrine, a "base case." NATO should be prepared to meet, with acceptable results, a theater-wide combined arms assault, if its pre- and intra-war deterrence should fail. NATO's bargaining and escalation concepts are dangerous, because delayed TNF use, or politically symbolic use, could well forfeit the possibility of an acceptable military outcome. In addition, it is argued that a NATO combined arms posture and doctrine designed to confront the Soviet Union with the prospect of defeat would strengthen Soviet disincentives to employ TNF, and provide the optimum deterrent effect.

Part 3 integrates and summarizes the conclusions of the preceding analyses and suggests measures for immediate NATO action. The Soviet approach to transition appears to envisage a severe Western threat that would force Soviet preemption. Soviet political doctrine is judged to establish victory as the Soviet war goal. Once military science guides Soviet decision-making, political statecraft would be subordinated to the prosecution of the war. Four conclusions can be drawn concerning the apparent Soviet "school solution" to nuclear transition: it would be:

-- a preemptive attack on NATO nuclear weapons and C^3.

-- for decisive military purposes.

-- dictated by military circumstances and expediency.

-- unrelated to the crisis--management, political bargaining, and escalation concepts entertained by NATO.

The Soviet approach to nuclear transition, while dominated by military imperatives, could have an unintended and decidedly negative effect upon the cohesion of the NATO alliance. In an effort to avoid a nuclear war within the most urbanized area in the world, European NATO governments

could prefer to "bow-out" of the conflict rather than sustain a defense. A potential solution to this problem would transcend current NATO defense planning assumptions and require a genuinely forward defense (preferably very far forward).

Within the current structure of NATO defense-planning assuptions, seven steps are recommended to reduce the vulnerability of NATO's nuclear assets, and to increase the vulnerability of Soviet theater nuclear assets:

-- render intelligence indicators of a NATO nuclear strike far less ambiguous.

-- force the Soviet Union to increase the proportion of its conventional forces that must be devoted to the protection of theater nuclear weapons.

-- disperse and harden NATO nuclear storage sites to reduce collateral damage associated with Soviet preemption at transition and to reduce the number of Soviet warheads available for non-nuclear targets.

-- reduce the time between unambiguous indications of NATO nuclear use and actual use.

-- move toward longer-range NATO nuclear weapons.

-- allow for the last-minute relocation of NATO nuclear weapons with decoy cover.

-- detect Soviet nuclear preparations in order to permit the timely reallocation of nuclear and non-nuclear assets, and possibly NATO preemptive transition.

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1. SOVIET VS. WESTERN STYLE IN TACTICAL NUCLEAR DOCTRINE: TRANSITION ISSUES

The problem of the transition from conventional to nuclear operations is among the most complex confronted by the Soviet Army as it contemplates its most important operational task, war in Central Europe. It is our contention that the transition reflects a distinctive Soviet style in war, including the Soviet view of the character and purpose of warfare. We begin with the assumption that current Soviet transition doctrine is essentially pre-emptive, and attempt to place such a doctrine in its wider Soviet context, to suggest its origins and the considerations underlying it. Current Soviet doctrine has evolved from quite different positions adopted under Stalin and then Khrushchev under a variety of internal and external impulses. In the next decade we can expect to see a new Soviet leadership and, quite possibly, such new Soviet conditions as a severe domestic labor shortage. Thus to connect the Soviet view of the transition to deeper causes within the Soviet system is also to construct a basis for predictions of future Soviet doctrine--and for estimates of the future shape of the Soviet ground forces.

Any discussion of this type encounters considerable problems of evidence of Soviet views. The Soviet military literature, as represented by the series of Air Force translations and by Soviet internal press articles, reveals what appears to be a wide range of doctrinal positions, from the unthinkability of nuclear war to details of strike planning and even to statements that nuclear war cannot be limited, that it will be a struggle to the death between Western and Soviet societies. Recent Western accounts of Soviet society stress the formalistic character of Soviet political utterances, and the almost total lack, on the part of most Soviet citizens, of

commitment to professed political ideals.[1] The Soviets also produce a wide variety of professional tracts, both in book and in article form. However, a Western reader of books such as Colonel Sidorenko's The Offensive is struck by the amount of superfluous prose on nonessential subjects which it contains. Such Soviet documents, produced initially as military doctoral theses, often appear to a Western observer to be primarily requirements for career advancement in an extremely pseudo-academic Soviet military bureaucracy, rather than vehicles for the promulgation of authoritative and detailed Soviet military doctrine.

There are several possible ways out of this difficulty. One is to assume that, despite their rhetoric, Soviet leaders, particularly those in the non-military bureaucracy, will react rationally, much as Western leaders will. In particular it may be assumed that the Soviet civilian leadership will jealously and rather nervously control the release of nuclear weapons, and that such release will be extremely limited, whatever Soviet officers may imagine.[2] This assumption animates much of Western nuclear doctrine, and forms, at least implicitly, some of the basis of Western escalation theory. An alternative assumption is that the Soviets are so similar culturally and politically to their Czarist forebears that studies of Russian history are an effective guide to future Soviet behavior.[3] Prominent insights from this model include the top-down character of Soviet society, the relative indifference of the Soviet leadership to the destruction of much of its citizenry, and the mixture of avarice and xenophobia which can be used to explain Soviet behavior.

On this model, the primary concern of the rulers of the Soviet Union is the continuation of their own political power, which is linked with the continued expansion of that power. The regime rules, at heart, because it

awes the population: continued military or civil reverses, if they do not arouse the patriotism of the Russian people, are the greatest danger to that awe. Perhaps the next greatest danger is contagion by outside ideas: one way to prevent that contagion is by absorbing (and neutralizing) contiguous areas.[4]

Yet a third model attempts to project Soviet behavior on the basis of Marxist-Leninist political theory, combined with the most fundamental historical experiences of the current Soviet leadership.[5] This model also tries to take into account the "revolution in military affairs," the effect of nuclear weapons and space technology on the character of war, as seen by the Soviets. Important insights from this model include the Soviet concept of a perpetual war between "socialist" and capitalist societies as well as the vision of a kind of Soviet manifest destiny.[6] History suggests that societies so animated have a view of war quite different from that current in the West. Even though most Soviet citizens seem indifferent to the political rhetoric in which they are immersed, that rhetoric provides a framework which probably influences Soviet behavior. Perhaps as importantly, Soviet official ideology provides a non-Western framework in which war outcomes and alternative strategies can be weighed. This non-Western set of values is probably a fundamental element in Soviet thinking; it goes far beyond a distinction between dictatorship and democracy.

This report is based on conclusions drawn from the third model of Soviet behavior, reinforced somewhat by arguments of the second model, and by reported Soviet behavior, both in weapon acquisition and in practice. Hopefully it is possible, by setting this practice in the larger framework of Soviet political theory, to achieve a wider understanding of Soviet tactical nuclear intentions and likely practice. Such projection is valuable because

NATO has decided upon a program for theater nuclear force (TNF) modernization--in effect, the other side of the Soviet transition issue. (However, NATO's purpose in modernizing the TNF is to enhance deterrence by insuring that NATO has a credible capability in the TNF mission area.) With the Soviets now at or beyond nuclear parity both within and beyond the theater, such estimates of Soviet motives seem particularly useful. Moreover, the great contrast between Soviet and Western views on the transition makes the usual implicit mirror-imaging (on both sides) particularly unfortunate.

1.1 The Role of Soviet Doctrine

Soviet declaratory military doctrine is to a large extent politically motivated. There are abundant historical examples (many of them non-Soviet) of war plans which read very well but failed in practice. However, in a world not (yet) at war, Soviet perceptions of the viability of their military machine are, perhaps, more important than its actual performance. Our understanding of Soviet thinking may well be extremely important in our effort to convince the Soviets of the futility of any European offensive. (NATO capabilities to deter nuclear use and, if necessary, control escalation, are important roles for NATO TNF.) Of course the same insights will be valuable in our efforts to defeat that offensive, should it be launched; but that is quite another matter. The subtle defects in Soviet thinking and execution which may well defeat them in battle are unlikely to loom large in their prewar thinking, as in many cases they are so basic to Soviet society as to be ineradicable.

The Soviet doctrine and tactics cited are deduced from Soviet military sources. Their starting point is an implicit top-level political decision to fight which, in theory, permits the Soviet military to carry forward its

concept of a war. One analyst of Soviet behavior refers to a tendency, on the part of Russian and Soviet political leaders, in effect to throw up their hands in some crises and "tell the Army to clean up the mess," often without entirely thinking through the consequences.[7] However, the consequences of nuclear warfare are so well known, even within the well-insulated Soviet political hierarachy, that it is possible that in a prewar or war situation severe limits would be placed on the military. These might conceivably correspond to the control exercised by President Johnson during bombing operations in Vietnam. It must be stressed that Soviet ideology and the standard Soviet world-view do not square with such limitations, and therefore that the account which follows excludes them.

In particular, Western knowledge of Soviet tactics and theater doctrine is largely taken from observed Soviet practice; at the levels of classification available to this writer, it was not clear whether the Soviets have ever included their political leaders in war game exercises, or indeed to what extent Soviet political leaders are concerned with the details of Soviet military plans. However, at least the current generation of Soviet leaders is deeply involved in matters military and has had first-hand experience of leadership during World War II. Brezhnev, for example, spent part of World War II as political commissar of the Black Sea Fleet (where he formed a connection with Admiral Gorshkov). Later, he was responsible for leadership of the Soviet missile program during the postwar period.

It may also be worth remarking that the Politburo exercised very detailed control during the Czech crisis of 1968. One might expect a similar level of control in any future crisis the Soviets considered genuinely local or delicate; the key question then would be the point at which they decided that their "canned" war plans had to be executed.

The Soviets tend, at least in their writings, to go from grand principles, whether of history or of war, to specific applications; they are, for example, very proud of their "science of war." The origin of this tendency is somewhat unclear. Undoubtedly a Soviet officer would say that such formalism can be traced to the "scientific" (deductive) approach to the social sciences introduced by Marx and Engel. However, this scholastic or formalistic approach can also be found in Czarist writings. For example, a comparison between Morskoi Sbornik and contemporary British and U.S. naval journals of the pre-1914 period reveals an almost complete absence of reference to practical issues on the part of the Russians.[8] The fascination with principles may also reflect the Party's emphasis on theoretical doctrine. A Western cynic would of course observe that the Soviet state has never been troubled by contradictions between Party theory and reality; indeed, given the primacy of the Party they seem willing to accept great material sacrifices (e.g., in agriculture) rather than deviate from their principles. Contradictions between principle and reality may show themselves in combat if we are wise enough to behave unpredictably; some observers of Soviet exercises suggest that in those exercises the forces representing NATO often operate in a particularly tame manner.[9]

The current paper attempts to develop a Soviet-style perception of the nuclear transition in Europe by synthesizing basic Soviet ideological principles, guided by what we know of the development of Soviet hardware and practice. In some cases Soviet doctrine, especially when filtered through the exigencies of the Soviet productive system, may seem unrealistic to Westerners. However, this is not to say that the Soviets will do foolish things just because their logic tells them to, but rather that they have, over time, constructed formal principles with which they feel comfortable.

Of course there is a considerable degree of Russianism behind and among the political and military theory.

Because of their formalistic bent, the Soviets tend to emphasize classic military themes, and these are sometimes picked up in the Western literature almost as if they were Soviet inventions: examples of particular importance are the value of cover and deception, and, similarly, of surprise; the importance of war aims; the importance of concentration on the (military) objective; the need to define war aims concretely; the preeminence of the offense; the preeminence of tactics of fire and maneuver, the area of maneuver immensely expanded due to the advent of weapons of mass destruction and long-range means of attack. These themes are not new, nor are they Soviet inventions. They are credited to the Soviets because study of the "principles of war" has never had an important place in the essentially pragmatic British and U.S. military literature. Moreover, they are absent from the Western analytic literature because the latter is, most often, not concerned with actual military tactics, but rather with questions such as the evaluation of alternative weapon systems. As such, it is by no means comparable with the content of Military Thought and similar journals. The extension of this particular distinction to national modes of combat is misleading--at best.

Indeed, it is very striking that the Soviets do not appear to possess an equivalent to the Western strategic literature. That is, they cover the two extremes of the military spectrum, detailed tactics and national doctrine, but not the means of connecting the two. In a sense the current paper, like other recent studies, is an attempt to identify this missing Soviet doctrine.[10] One reason for this gap is ideological: if the Soviets maintain that their war plans are essentially defensive in character, then

it may be very difficult for them to admit to planning for the looting of the territory they seize.

One difference between Western and Soviet thinkers which is very important is that the latter tend to treat "weapons of mass destruction" as points along a continuum which includes conventional weapons and therefore to apply to them classical tactical considerations. Their great problem, then, is how to react to a Western doctrine which envisages massive discontinuities between nuclear and conventional use, and which does not provide for any preconsidered reaction to chemical warfare--which the Soviets class as one more "weapon of mass destruction." The Western position is, if we may say it, rationally irrational: We espouse a combination of controlled escalation with the option of deliberately courting losing control in a particularly destructive manner. Soviet military theory does not appear to envisage this sort of Western reaction. In particular, the Soviets appear to believe in a rather rational form of intrawar deterrence in which <u>they</u> hold the initiative. That is, they appear to expect to be able either to deter a Western nuclear strike or else to be able to preempt any Western decision to escalate. What they do not appear to envisage is the sort of escalation bargaining common in the Western strategic literature.

The application of formal theories is filtered through a wide range of specifically Soviet (or Russian) military traditions and military realities, perhaps most notably the tradition of a mass-conscript army effective in only a very limited range of scenarios, and far more effective in a mass offensive than in anything else. Perhaps the origin of this tradition is the fact that the Soviet and Czarist states were both very highly centralized, with an abhorrence for any extended initiative at lower levels. In the Czarist army this political consideration was strongly reinforced by

the very low educational level of a peasant army. Even now, the Soviet Army reportedly suffers from severe deficiencies in such basic skills as map-reading and driving. Labor shortages in the economy as a whole make it difficult for the Soviets to keep their conscripts in service for very long periods, or to achieve a substantial re-enlistment rate; consequently, training tends to be extremely specialized.[11] The lack of flexibility inherent in Soviet military personnel is one reason for the kind of rigidly pre-planned tactics favored historically by the Czarist and Soviet armies. For example, a lack of initiative at low levels is not a Soviet, but rather a classic Russian, problem, and it is well recognized as such by the Soviet Army.[12] This kind of tactical or even personnel problem may have important large-scale consequences; for example, the Soviets may find it difficult to engage in much less than a full-scale "canned" offensive battle in Europe, simply because of problems of inflexible troop control and staff work. Of course, this may work to NATO's advantage. However, such inflexibility may seem less unfortunate to the Soviets than to us in view of Soviet political doctrine concerning the character of a European war.

Standard descriptions of Soviet tactics stress the preplanned character of the first-echelon operations, including even the menu of objectives for the first echelon reserve. Such preplanning reduces the need for detailed command and control arrangements and, therefore, the load on a highly centralized command structure. Indeed, one of the most striking characteristics of Soviet command and control practice is the absence of "horizontal" links between units at the same level; information must travel up to a higher-level headquarters, and orders back down.[13]

The lack of individual initiative and, more importantly, of flexibility, may well have been demonstrated by Soviet operations in Hungary in 1956 and

in Czechoslovakia in 1968. Both must have been scenarios not included in standard Soviet planning. In both cases, it was reported that even administrative movements proved remarkably difficult. One is tempted to suggest that such difficulty was traceable to the need for rapid planning in a non-standard situation, with political control exercised in a continuous and detailed manner. To a Soviet analyst, the lesson of both operations may well have been that they would have proven exceptionally costly in the face of serious armed opposition.[14] It would seem to follow that carefully limited combat is not really an option open to the Soviet army; that it cannot hope for much success using plans outside its standardized repertoire. As long as it is basic Soviet doctrine that war in Europe cannot be limited, this repertoire is unlikely to include carefully controlled responses to containable crises involving Western forces.

This type of consideration should be of particular interest, given that the range of scenarios usually found most plausible in the West involve incidents from which wars proceed by miscalculation. If, in fact, the Soviets perceive that they risk major embarrassment--which can have the most severe internal political consequences--if they attempt to execute anything but their canned war plans, then the danger of major (conventional) war arising out of some such scenario increases very greatly.[15]

1.2 The Soviet Political System

Perhaps the most noteworthy feature of the Soviet political system is its very high degree of centralization. The Soviets, like the Czarists before them, live under a system of absolutism quite alien to Westerners. The ruler maintains his position by virtue of his power of life and death over the masses, not (as in the West) by means of an implicit social contract in which his ability to provide essential services (above all else, physical

security) legitimizes his authority. This abstract political point carries over, in practice, to the extreme discouragement of initiative among the population, indeed to contempt for the masses. In state organizations, it has always encouraged a bureaucracy ready to fawn on the rulers and at the same time to treat the ruled with disdain. An alternate expression would be that, from Czarist times, status in Russian society has attached almost exclusively to servants of the ruler--a point surely still true.

At one end of the spectrum of government, the peculiar position of the ruler in Soviet society permits no doctrine of automatic succession. By extension, it is not permissible for the ruler's free choice of policies to be hedged about, or indeed to be discussed publicly. Thus, for example, the Soviet military debates, from which we draw much of our vision of Soviet doctrine, are quite limited in their permissible range--as are other debates in Soviet society.[16] In particular, they cannot touch on the precise limits of the Politburo's control over military affairs. In theory the Politburo merely replaces the Czar--who always styled himself the "Autocrat of all the Russias" and who is said to have prided himself on the extent to which he was independent even of his advisors.

At the other end of the same spectrum, Czarist and Soviet views coincide: individuals always require detailed supervision; indeed the natural consequence of a lack of detailed control is chaos. Recent writers on the Soviet Union suggest that this attitude pervades the population as well as the bureaucracy.[17] Indeed, it is sometimes reported that many Soviet citizens accept an authoritarian government precisely because they fear the anarchy they see as the only likely alternative.

However, another side of such acceptance is widespread apathy. The average Soviet citizen will, apparently, do as he is told--but no more.

The best evidence of such behavior is the vast effort the Soviet state feels compelled to exert to arouse popular enthusiasm. In the military, apathy probably translates to relatively low morale, as witness the endless discussions of morale-building competitions and of "hero units" which overfulfill their performance norms--discussions largely absent from Western military publications. Once again, this is a matter of leadership from above only.

Finally, the Soviet system tightly controls information, with the important consequence that the Soviet Union is, in effect, a rumor mill. This has important military consequences, in that some rumors can be quite destructive. For example, widespread fears within the Soviet Navy concerning the safety of submarine nuclear powerplants are credited for the quick abandonment of a Soviet NOVEMBER class submarine which experienced a small (non-reactor) fire in 1970. The destructive power of rumor in a lengthy and indecisive European war would surely be a major Soviet concern, particularly if the systems and tactics Soviet troops relied upon did not work quite as advertised. "Surprises" concerning the long-term (past one week, say) effects of radiation exposure almost certainly fall into this category, given Soviet official attempts to avoid revealing their character.

1.3 The General Staff

The Russian emphasis on central control has important military consequences. For example, it translates into what, to Westerners, seem excessively large staffs often concerned with relatively petty details of operations. Soviet accounts of World War II seem to emphasize the role of the General Staff far more than would be the case in the West. Perhaps as indicative has been the Soviet reaction to the promise of automation of administrative functions. Authoritative Soviet writers first saw such automation

(e.g., in producing pre-formatted operational orders) as a major advance because of its potential for reducing their bloated staffs and thus permitting much easier movement (for survivability) of those staffs.[18] Recent Soviet accounts of the "revolution in military affairs" stress the growing operational role of the General Staff, due to a combination of faster-moving army formations operating over larger areas in coordinated fashion; and to modern communications. Computers are also essential to such a development, in that the central commander must draw on more and more data if he is to make intelligent decisions about a complex battle.

Indeed, the Soviets sometimes consider "cybernetics" the basis of a new "Revolution in Military Affairs" which permits them to implement ever more mathematical theories of warfare--which have been studied quite thoroughly in the West.[19] It is well to remark here on the General Staff system which produces (or is the product of) so formalistic an approach. The peculiarly academic Soviet system encourages General Staff officers to write crisply mathematical decision-making, and even perhaps to deceive themselves as to the extent to which such calculations would determine important decisions.[20]

These developments are not entirely different from those in Western armies. However, the Soviets place great emphasis on "collective," or highly coordinated, operations as a force multiplier, with much of the firepower (at least at first) delivered from considerable distances (e.g., by FROGs or SCUDs). Such long-range fire allows for greater flexibility in the selection of its point of aim, given an initial artillery and rocket disposition--and given detailed control of the battle by a high-echelon headquarters. Long-range fire of this type is particularly useful in a breakthrough operation, in which multiple probing attacks are launched, and the successful

ones reinforced by long-range fire. In effect the relatively long range designed into Soviet support rockets permits the Soviet army to achieve a high degree of local superiority in initial probing actions.[21] However, centralization carries with it considerable risks. The chain of command enforces delays in firing and thus may either retard operations or result in friendly casualties. Thus the concentration of very long-range firepower tends to favor preplanned ("canned") tactics, or, at best, tactics with very limited sets of options. Moreover, it is not clear that these weapons would be at all useful in the fluid phase following breakthrough (or following a relatively static battle)--which suggests part of the rationale for the SP guns and for the new Soviet equivalent of our A-10.

1.4 Traditional Elements of Soviet Military Style

The two traditional components of Soviet (and, for that matter, Czarist) military power were massed manpower and artillery firepower. The former was a consequence of the sheer size of the most populous nation in Europe. As a factor in Soviet calculations, it has waxed and waned in the past half-century. For example, World War II severely depleted the ranks of military-age youths from about 1960 on. This depletion (a fall in the 18 to 21 year old bracket from 6,915,000 in 1959 to a low of 3,164,000 in 1964) may have been an important factor in the rise of Khrushchev's nuclear-missile doctrine.[22] The current decline in numbers of Great Russians and the rise of Asiatics in the Soviet population may be leading to a dilution of Army ranks and even to some uncertainty regarding Army political reliability.

The origins of the superiority of Soviet artillery are more obscure, but that technical superiority has been well established at least since World War I. The political clout of Soviet artillery men was undoubtedly

an important factor in the wide proliferation of FROGs in Soviet front line forces. Historically, the Soviet Ground Forces have preferred organic artillery to direct air support.

Another factor in Soviet war-making is the character of the Soviet production machine, which is relatively inflexible, but which is well adapted to producing the massed armor and rockets of the Soviet Ground Forces. It appears somewhat less well adapted to sophisticated electronics; the rapid production of nuclear warheads may also present some problems. Traditionally, therefore, the Soviets have been quite willing to expend large numbers of tanks, troops, and unsophisticated aircraft, but they have taken pains to conserve larger and more sophisticated aircraft (and, for that matter, surface ships). Nuclear weapons may fall into an intermediate category of valuable assets, neither to be wasted nor left under-used in a large war. Soviet statements on the degree of materiel wastage to be expected in a nuclear war correspond well with the extent to which their production machine has enabled them to build up a stockpile of conventional weapons, particularly tanks.

These factors add up to reliance on mass, on weight, to a lesser degree on momentum. A factor perhaps less obvious is the relatively unsteerable character of a very massive army in motion. Before 1914 it was common to refer to the "Russian steamroller," one of whose salient characteristics was its unstoppability--by either Hun or Czar--once it had been set in motion. In current Soviet military writing those traditional considerations have been translated into a strong belief in the primacy of the offensive, particularly when it is executed at the very favorable force ratios guaranteed by current Soviet echelon tactics.[23]

Soviet military doctrine shows a pervasive conservatism, a need to hedge against failure. This may be useful to NATO if we can exploit "uncertainty."

For example, although the Soviets plan a quick campaign (and indeed at least in the past have often preferred to buy firepower rather than unit combat endurance) they have also shown (by Western standards) extraordinary interest in their own long-term mobilization potential and in stockpiling and reserve organization.[24] Soviet military conservatism also shows itself in the requirement for very great superiority at the point of battle; nuclear weapons, with their great destructive potential, are extremely attractive means of securing such local superiority in a particularly flexible way.

1.5 Soviet Political Objectives

Perhaps the most fundamental difference between Soviet and NATO positions on tactical nuclear warfare concerns the political goals of that warfare; only slightly less fundamental is the difference concerning the political consequences of any nuclear use. These two contrasts explain a large part of Soviet transition doctrine.

Fundamentally the Soviets are expansionists: Soviet political doctrine envisages the ultimate triumph of "socialism," i.e., of the Soviet system, worldwide. In theory the impersonal forces of history are to accomplish this triumph; the capitalist world is to collapse under the weight of its own internal contradictions.[25] In this view, the function of the Soviet armed forces is to defeat any last-gasp attempt by a dying capitalism to destroy the center of the ongoing world revolution, the Soviet Union. Note that their function is not to provoke that war: the forces of history will do the trick, unless the capitalists choose to resist. Otherwise, it would be an unnecessary risk for the Soviet Union to fight. The Soviet doctrine of encouraging "wars of national liberation" is an extension of the concept: the role of socialist military forces is, in general, to protect "progressive

forces" from violent counters by the capitalist world. Violence on the part of the progressives is, of course, no more than a helpful push towards their historically inevitable triumph and, if Soviet ideology is to be believed, is no more nor less than a reduction of net human suffering prior to the advent of the socialist paradise. It follows that to a Soviet thinker "deterrence" keeps the capitalists from attacking the socialist homeland as they might (or, really, should) otherwise want to do.

The postwar evolution of Soviet doctrine is instructive. Stalin apparently believed that a war with the West was inevitable, although not, perhaps, imminent: for example, he was willing to demobilize most of his army in 1945, although it appears that he maintained a high pitch of military production. Perhaps Khrushchev's greatest contribution to Soviet ideology was the idea that a strong Soviet Union could permanently deter the West, so that war was no longer inevitable, although it was by no means to be excluded from the range of possibilities. Khrushchev introduced the concept of the "war of national liberation" supported by the Soviet Union; ever since his time, the Soviets have maintained their right to shield revolutionaries from Western wrath without risking general war. In this context their definition of peaceful coexistence is the continuation of the inevitable struggle by other than warlike means: they think of war as only one of a variety of means of conflict.

These theoretical factors in Soviet behavior have remained stable for quite some time, but they should not be considered immutable, particularly given the probability of a major shift in Soviet leadership within the next five years. The notes which follow outline some possible excursions from current Soviet polity, which may in turn require major revision to Soviet theories of the probability of war with the West, including the risks thereof.

Although any shift in Soviet doctrine would be cloaked in ideological terms, factors more easily recognized by Western observers would be present in the background.

What is significant to the argument of this paper is that present Soviet policy is largely--in theory, it should be emphasized--reactive. The Soviet Union keeps up a steady level of pressure against the West, but at the same time it expects the West to succumb to its own internal problems. War is expected to occur, if at all, due to Western initiatives--which the Soviet Union can, of course, detect and preempt. If, however, the Soviet Union comes to take a more overtly activist position-- due perhaps to a perception that the "correlation of forces" has tilted decisively in its favor--then the basic thinking behind Soviet military doctrine may also shift decisively. For example, a Soviet leadership truly convinced that the Western European democracies are ripe for the taking and unwilling to defend themselves may become interested in extremely limited military operations using only elite forces. This may have been in the forefront of the Soviet thinking prior to their invasion of Afghanistan. This type of concept is by no means excluded by even the present Soviet concept of the world.

In recent years Soviet writers have increasingly referred to a military role in the Third World, although in practice the Soviet Union has preferred to deploy its hardware operated by such allies as Cubans. However, one of the major arguments for an oceanic role for the Soviet fleet advanced by Admiral Gorshkov was the need to further Soviet "state interests" overseas. The apparently imminent construction of a Soviet aircraft carrier (not the Kiev) makes such a shift in policy towards greater aggressiveness appear more probable. Possibly it has been occasioned by a Soviet perception that

with strategic parity the West will now be deterred from intervention in Third World conflicts--such as the war in Angola.

It is also possible that the current Soviet counter-insurgency operation in Afghanistan will lead to a shift in Soviet doctrine to permit attacks on guerrilla sanctuaries, e.g., in Pakistan. No such shift is yet apparent, but Western accounts of earlier guerrilla wars emphasize the importance of striking at just such sanctuaries, of cutting off foreign sources of supply. To make such attacks (at least openly) at present would probably require some further development of Soviet policy towards what we in the West would see as greater aggressiveness--which might of course have indirect consequences for NATO.

In particular, there is a vast psychological gulf separating a government which convinces itself that a war has been forced upon it from one which knows it has the initiative. The latter is, for example, far easier to deter, to frighten off. The former is probably far more prone to adopt a preemptive strategy, to tell itself at every juncture that it is "acting first in the last resort." Thus it is possible that, should the Soviets begin active operations abroad with their own troops in the next decade, their perception of the probable opening scenario of a European war may begin to shift. They may begin to see an opportune war as the best way of consolidating "world socialism."

There are two other important factors to keep in mind. One is the current stagnation of the Soviet economy (due in part to resource exhaustion in the European U.S.S.R., in part to demography) which may, by the mid-1980s, give a new Soviet leadership the feeling that military and other trends are beginning to go the wrong way. It may not take too much to convince such a ruling group that (i) the West is merely attacking by non-military (e.g.,

economic) means and (ii) the West is preparing to take military advantage of its growing relative strength.

The other factor is China. It seems unlikely that the Soviet Union and China will reach any sort of rapprochement. If a de facto PRC-NATO linkage should develop, it is conceivable that the Soviets, like the Germans of 1914, will find it impossible to write a war plan without taking both Eastern and Western fronts simultaneously into account.

China (PRC) presents a Soviet ideologue with particular problems because it cannot be dismissed as merely another capitalist state. Perhaps more significantly, it may represent to some Soviet citizens a Marxist alternative, the mere existence of which calls into question the legitimacy of the Soviet system. It seems conceivable that, over the next two decades, Soviet policy will come to view a preemptive war on the PRC as a valid expression of Soviet state interests.

The significance of these projections, for the issue of theater nuclear war in Europe, is that an evolving Soviet official ideology may, over the next decade, shift quite radically. In that case some of the conclusions drawn below concerning the tactical concomitants of Soviet ideological style require major modification.

1.6 Soviet Military Consequences

Soviet political doctrine has direct military consequences. The objective in war is the destruction of the (capitalist) enemy and the seizure of his territory--on the model of the central Soviet military experience, the Great Patriotic War of 1941-1945. Since the status quo ante is (by definition) unsatisfactory, it is by no means sufficient merely to rebuff a Western attack: the offensive, and the seizure of territory, are predominant.

Soviet military literature is filled with discussions of the problems of the breakthrough and its exploitation in the subsequent advance. Although nuclear weapons can greatly assist in the destruction of enemy forces, they also tend to create their own obstacles, e.g., fallout and radio-active zones. Similarly, considerations of military economy make it difficult to use nuclear weapons in direct support of friendly troops. From a Soviet point of view, therefore, "collateral damage" (to be avoided) means blockage of axes of advance as well as the destruction of friendly frontline troops--who cannot be very well shielded, at least after the outbreak of war, simply because they have no time to dig in.

Just how much damage the Soviets willingly would inflict on Western Europe should depend in part on their war aims. If they wish to secure the Soviet Union by eliminating the threat of Capitalist attack, then the destruction of the West will suffice, with the occupation of Western Europe far more efficient than its incineration (the opposite would presumably hold for North America). If on the other hand they either (i) are truly dedicated to world revolution or, more likely (ii) cannot hope completely to destroy North America (and the PRC) at this stage, then European industry is a worthwhile prize in its own right.

There has also been speculation that the Soviets see in Europe (and, probably, Japan) the assets required for their postwar recovery, given U.S. determination to destroy Soviet industry in a strategic exchange. It is by no means clear whether this is Soviet doctrine, or whether it is a natural concomitant of Soviet planning undertaken for quite different ends.[26]

It should be emphasized, however, that the Soviets generally write about the destruction of <u>military</u> and military-related targets in war, <u>not</u> the intentional destruction of population as a means of securing psychological

or political ends. If indeed they believe in the possibility of protracted warfare, then any use of (relatively scarce) nuclear weapons on other than militarily relevant targets would go directly against the kind of no-nonsense style espoused by Soviet military writers.

This does not mean that European populations would be spared. The Soviets count among military objectives military industries and such facilities as ports. Such thinking is consistent with their expectation that even a nuclear war may not end very quickly. It thus comports well with Soviet interes' in war survival, the preservation of Soviet military industry under attack, and the maintenance of large reserves of manpower and materiel.

1.7 NATO Concepts of Nuclear Use

NATO, at least as presently constituted, is in a very different position. It is not very much interested in leaving open axes of advance towards the East, but rather sees the avoidance of collateral damage as a carrot to be dangled before the East Europeans. In the West, NATO wishes to avoid damage to its own territory. Indeed, the major preoccupation of NATO Europeans seems to be the avoidance of a tactical nuclear war on the Continent at almost any political cost (except perhaps the cost of rearming). European statements on the potential consequences of U.S. rejection of SALT II and reactions to the Brezhnev troop/tank withdrawal offer seem to be strong evidence in this direction. It follows that, in the West, evidence of serious warfighting preparation is generally greeted with horror.[27]

Thus, for example, NATO could (in peactime) build lines of bunkers to permit nuclear close support of its troops as they fell back, but such

a project would have the gravest political consequences and therefore seems most improbable of execution.[28]

What is truly remarkable about this view is that at the same time nuclear weapons are accorded an aura of omnipotence: they can, somehow, substitute for investment in conventional armaments (even though they cannot do so). In particular many Westerners (mostly Americans) seem to assume that their use, on a carefully controlled scale, can (and will) bring about the prompt end to hostilities which NATO seeks. Thus NATO both believes in the efficacy of tactical nuclear weapons and seeks to avoid their use early enough in a war to achieve tactical results;[29] reliance is, instead, placed on their psychological impact, in the belief that any use of nuclear weapons automatically involves the spectre of world destruction.

In large part, this NATO doctrine harks back to a time of Western tactical and strategic nuclear superiority, when indeed the use of a few weapons was a signal that an overwhelming arsenal was about to be unleashed on an advancing Soviet army--which could not reply in kind, at least not effectively.[30]

1.8 The Evolution of Soviet Nuclear Tactics

The Soviet view of the role of nuclear weapons in a European war has undergone considerable evolution since the introduction of these weapons in the early 1950s. Throughout the last quarter-century, the one constant has been the conviction that nuclear weapons were so destructive that their use might well prove decisive. Soviet official discussions of nuclear warfare of the late 1950s and early 1960s stressed the importance of preemptive strikes and the greatly increased potential for surprise.[31] In large part such statements were a reaction against Stalin's doctrine of the preeminence

of such "permanently operating factors" as civilian morale and the industrial base. His claim in turn was intended to overcome criticism of his failure to foresee the German surprise attack of 1941; if indeed nuclear weapons could be decisive, a future Barbarossa might well prove fatal. With Stalin's death, surprise (particularly with nuclear weapons) could once more be elevated as a principle of war. Evolution since the mid-1950s has been in the balance between nuclear and non-nuclear operations in the standard Soviet scenario of a European war; this balance has been shaped by, among other things, a Soviet transition from relative nuclear poverty to relative plenty, from extreme strategic inferiority (U.S. escalation dominance at the high end of the escalation ladder) to rough parity. In the large, the Soviets have gone from a posture of (perceived) inferiority, in which their Army in Eastern Europe was essentially a defensive formation against a perceived (if nonexistent) Western threat, to an offensive posture.[32]

Assuming a Soviet perception that a future war would be begun by NATO, most Soviet commanders of the late 1950s and early 1960s believed that the war would open with a surprise nuclear/missile attack, a perception undoubtedly reinforced by U.S. and NATO emphasis on tactical and strategic nuclear strike systems, at the expense of conventional ground forces. Although the Soviets were investing very heavily in air defense, in the early 1960s they considered their systems quite inadequate; even the PVO, in this period, argued in favor of destroying enemy (NATO) nuclear weapons on the ground, preemptively. Soviet calculations of this period show, for example, that tactical air defenses would probably be overwhelmed unless Soviet strike forces were able to exact considerable attrition on the ground.

Soviet doctrine (at least as observed in exercises) was to begin the war with nuclear strikes, in the hope of (i) redressing the balance of forces

as quickly as possible, using the most economical means of attack and (ii) destroying NATO nuclear strike assets as rapidly as possible. Soviet planners assumed that, given NATO statements that tactical nuclear weapons would act as "equalizers" against the mass of Soviet conventional units, NATO would fight with nuclear weapons from the first (NATO credible deterrence).

There was another consideration. As n the West, the primary Soviet defensive measure against nuclear attack was to spread out their formations. This in turn required a great dilution in offensive firepower per unit frontage. Given traditional Soviet measures of firepower density required for successful breakthroughs, Soviet formations of the 1950s and 1960s could not achieve such successes using conventional weapons: nuclear strikes at the outbreak of war were not only desirable but necessary.[33] Only much more recently has Soviet conventional modernization made a Soviet conventional breakthrough practical, given Soviet force requirements.

This type of argument appears still to motivate Soviet tacticians; the chief new development is probably the perception, relatively optimistic from a Soviet point of view, that the war may well not open with a crushing nuclear attack--Soviet strategic weapons will deter that.

NATO nuclear weapons and systems remain the first target of a Soviet strike. For example, the stated primary mission of the Soviet paratroop force is the seizure of enemy "nuclear means." Such a priority suggests that in Soviet eyes, even though a major war may be won without recourse to nuclear weapons, those weapons represent so important a threat that they must be neutralized at the outset. Thus the Soviets, unlike NATO, do not choose to rely on deterrence to prevent NATO nuclear use;[34] as in the war as a whole, they tend to rely on concrete military results rather than psychological effects. Presumably the initial conventional phase of the war will

be used by the Soviets to move their own nuclear weapons into position, profiting from early attrition of NATO strike assets to reduce their vulnerability.

It is important to note, moreover, that the Soviet military literature of the 1950s did not see nuclear weapons as "absolute." They might be decisive, they might so disable the Soviet military as to cause its defeat, but the Soviets remained interested in post-strike operations, in what used to be called "broken-backed" war. This stance typifies a relatively phlegmatic Soviet approach to questions of nuclear warfare: damage is to be avoided, but war does not end history. Given the Soviet view of East-West relations and their future, to shrink from the possibility of nuclear war (at least to do so consciously) would have been to give the West an invaluable means of coercion during the period of Soviet numerical inferiority. Moreover, given the destruction of World War II and the postwar emergence of the Soviet Union as one of the two superpowers, it would be difficult for a Soviet leader not to look past the destruction of a new war towards a viable (if perhaps quite unpleasant) future.[35]

Given the strength of the Soviet mechanized units deployed even soon after World War II, the perceived Soviet inferiority must have been due to a combination of Western tactical airpower and Western nuclear weapons, both tactical and strategic. This perception is only an example of a far more profound Soviet feeling of technological inferiority to the West. Indeed, it sometimes appears that the Soviets feel willing to publish extensively only on those classes of weapons they feel are now equal or superior to corresponding Western equipment. On this basis, one might say that the Soviets felt confident at least of equality in armored vehicles by the late 1940s, and of aircraft by the mid-1960s. However, it appears that the

pervasive sense of inferiority remains. Historically, the Soviet electronics industry has been unable to match the flood of hardware produced, for example, by the tank factories. This situation applies far less strongly now than in the late 1950s and early 1960s, but it is well to keep in mind as a basic influence on Soviet thinking. For example, to the Soviets the use of tactical missiles was a way of avoiding, on the one hand, the expense of tactical aircraft production (e.g., the cost of crew training and support electronics) and on the other a means of end-running Western advances in tactical air defense.[36]

Thus, Khrushchev himself ordained an emphasis on nuclear-missile weapons at the expense of more conventional ones. For example, he stopped a massive Soviet attack submarine program, declaring that he was uninterested in any submarines save those equipped with long range (strategic) nuclear missiles. The only bombers deemed important were those equipped with nuclear armed standoff missiles (primarily BEARs with KANGAROO);[37] with the success of the Soviet ICBM program and the formation of the SRF, even this line of developent was terminated. For example, the next-generation heavy bomber, BOUNDER, flew in prototype form only.[38] The PVO was made to rely primarily on surface-to-air missiles and production of long-range fighters suffered [illegible]. The emphasis on missiles shows in the characterization of PVO interceptors as "airborne missile stations."[39]

The tactical air forces did receive relatively small numbers of a new fighter (BREWER, Yak-28) to replace the aging IL-28 BEAGLE, but the [illegible] of production suggested sharply falling interest in such weapons.[40]

In the ground forces, this was the era of the introduction, on a large scale, of short-range tactical nuclear rockets (FROG); the Soviets also developed a long-range rocket gun roughly comparable to the U.S. atomic

"cannon." At the same time, about 1960, tank production fell steeply, although not so much as did day fighter and light bomber production.[41] The BMP, intended to exploit the after-effects of large nuclear strikes, was conceived at this time.

It appears in retrospect that the decisions to cut conventional tactical weapon production were among the reasons the 1956-1960 Five Year Plan was cut short early in 1959. These cuts were not really restored until about 1974. If it is assumed that the unique Seven Year Plan of 1959-65 reflected Khrushchev's ideas, and that there was too little time after his demise in 1964 to alter the next (1966-70) Plan very substantially, the factory expansions for a renewed tactical emphasis must have been begun under the latter plan for serious implementation only in the next (1971-1975) Plan. Given known Soviet industrial inertia, this kind of chronology seems both logical and accurate; it certainly explains the ten-year lag between the fall of Khrushchev and the obvious fall of his ideas. The prototypes of the new generation of tactical aircraft, for example, were flying, in a few cases, as early as 1966 (MiG-23, -25; the FENCER and BACKFIRE came in under the next plan) but large-scale production did not begin for some time.

Quite probably one factor in the downfall of Khrushchev's nuclear-first concept was the perception that in an all-out exchange Soviet forces (and the Soviet Union) might well suffer severe damage which could be avoided were the war to begin with a conventional phase in which NATO nuclear assets (including strategic ones such as SSBNs) were destroyed.[42] Such a conventional-first strategy does not correspond to the current Western one, in which a major goal is the avoidance of any escalation to nuclear weapons. Rather, it begins with the assumption that sooner or later the war will

turn nuclear, but adds the possibility that the conventional phase can be used to enhance the later nuclear one. There may not be a nuclear phase at all, but that will only be because enemy (NATO) nuclear assets have been so badly degraded in the conventional phase that they will no longer present a threat.

Thus, for example, Soviet conventional-phase tactics differ starkly from Western ones in that the Soviets emphasize the destruction of NATO nuclear assets over the destruction of NATO conventional forces:[43] the Soviets fight from the first in the expectation that the war will go nuclear, and also in the expectation that nuclear weapons will be employed in classic military, rather than political, roles.

The growth of Soviet non-nuclear forces thus dates from Khrushchev's downfall. For example, large-scale production of the MiG-25 (FOXBAT) was apparently in part a reaction to the previous heavily missile orientation of the PVO. Tank production has risen impressively, and some of the tank design innovations called for as early as 1960 are now entering service. Note however, that this phenomenon differs sharply from Western swings away from nuclear emphasis in that it represents a growth in conventional-weapon production without any compensating reduction in nuclear weapon production; indeed, for example, the number of FROGs per unit has risen in recent years. This procurement history is probably the best indicator of Soviet interest in a combination of nuclear and non-nuclear operations. There is every indication that the Soviets have progressed from an era of relative tactical nuclear scarcity to one of tactical nuclear plenty at the same time that they have maintained, and indeed increased markedly, the manpower and materiel required for large-scale conventional operations. Similarly, where a few years ago it was often said that the Soviet army lacked combat endurance,

this deficiency too, appears to be en route to correction--which suggests a Soviet willingness to fight an extended conventional battle, and not merely to rely on nuclear weapons to destroy an opponent.

With the acceptance of a conventional initial phase, the Soviets extended their preemptive view of the outbreak of war to a preemptive view of the nuclear transition. There is no consideration of escalation and counter-escalation. Rather, the initiative to escalate to nuclear weapons can be left to the enemy in the belief that Soviet intelligence and the Soviet chain of command will be more than adequate to preempt, to nullify the enemy's plan by timely tactical offensive action. This is, perhaps, the key to Soviet perceptions. In fact, given the stakes in a European war, it may well be inconceivable to a Soviet ideologue that, whatever Westerners may say, they will strive for any outcome other than victory.[44] Hence it is similarly inconceivable that escalation will be used simply for intrawar deterrence. Rather, escalation, particularly the nuclear transition, is a means of preserving a winning military advantage in a war fought under more destructive conditions. Intra-war deterrence <u>does</u> exist in Soviet eyes in that Soviet nuclear war-fighting competence may cause NATO to forgo and avoid any use of tactical nuclear weapons. However, standard Soviet practice is to announce that a war may well go to the tactical nuclear level, and accordingly to emphasize the destruction of NATO tactical nuclear assets in the opening, conventional phase--indeed, to emphasize such targets over more conventional ones. Such an emphasis is logical in view of the Soviet (and, indeed, NATO) perception that tactical nuclear weapons are so destructive that they may actually be able to negate the value of traditional Soviet mass tactics.

Soviet belief in the viability of preemption may well be linked to their efforts to develop what they call "radio-electronic combat," in which they link traditional EW mechanisms such as listening posts and jammers to weapons tasked with the physical destruction of hostile radios. A major role of such forces is the detection of nuclear release radio traffic; successful radio-electronic combat might be able to forestall or even prevent a nuclear release.

One of the great theoretical advantages of a preemptive approach to the nuclear transition is that it does not place the burden of nuclear initiation on the decision-maker: he feels he is merely accepting a role forced upon him by his more trigger-happy enemy; he might as well fire, since that will only be to his advantage. Although from an objective point of view preemption is much like a first strike, from a psychological point of view it is far easier. One operation is a gambler's move, and can be deterred by the prospect of failure. In the other, there is no real choice: the weapons must be used even if it is clear that their use will be partly or largely futile. Matters will be only worse if they are not used.[45]

There are large risks inherent in the preemptive approach; Soviet intelligence may be unsuccessful or (as in 1941) the Soviet political leadership may be unable to recognize the coming attack for what it is. In that case NATO may actually be able to strike first and so to spoil the Soviet offensive. The only insurance against such an eventuality is very large military resources backed by great defensive depth. The Soviets, moreover, presumably read a Western strategic literature which suggests that no matter how hard the initial NATO blow, it will not fall on the Soviet Union proper.[46] The SRF can deter that sort of escalation, at least at first, and Soviet passive and active defenses should (at worst) soften the blow very considerably. In

this reading, Soviet hardening (e.g., of SRF missiles) is not so much to assure any sort of stability as to hedge against the failure of the preemptive mechanism. In so hedging, they are caught doctrinally between their suspicion that he who fires first (even if he is not Soviet!) wins the tactical nuclear battle, and their hope that they can minimize damage to the Soviet Union by a combination of a conventional opening phase and a preemptive nuclear strike.

1.9 The Evolution of Soviet Nuclear Forces

Immediately after World War II, it was impermissible for Soviet officers to entertain the idea that the destructive potential of nuclear weapons might permit decisive surprise operations against the Soviet Union. A principal reason was that, had the Germans had such weapons, Stalin's errors of 1941 would then have been fatal; however, by definition, Stalin was incapable of error. Hence there was no serious discussion of nuclear tactics, although of course Stalin did press forward with the development of nuclear weapons. Nor was much attention given the role of surprise attacks; what mattered was the set of "permanently operating factors." Stalin did press the development of a wide spectrum of exotic weapons which would provide much of the basis for Khrushchev's "revolution in military affairs" a decade later: ballistic and cruise missiles, heavy bombers, SAMs, jet fighters.

Indeed, he emphasized this new development program. For example, Brezhnev was deeply involved in early Soviet missile development, as was Ustinov. The development of naval missiles was considered so important that Beria's son was placed in charge of it. The Soviet nuclear program was run by the NKVD and the Tu-4 bomber and the MiG-15 were both evidently crash programs. Apparently Soviet radar production, employing Western prototypes obtained under lend-lease, was also pressed forward very hard. One is left, however,

with the impression that Stalin had no clear picture of the new kind of warfare these weapons symbolized. Moreover, he seems to have prohibited extensive discussion of their implications.[47]

At the same time, production of some wartime equipment, perhaps most notably tanks and tactical aircraft, continued; some tank production figures suggest that the Soviets went from three shifts to one. Production of wartime types of tactical aircraft, such as the IL-10 Sturmovik, for close air support appears to have continued through 1948; when Soviet factories converted to jet fighters and light bombers, such production continued under license in the satellites.[48] Tactically, the Soviets continued to develop tank-heavy formations, which had been successful in conventional operations during World War II. In fact they began to describe the mechanized army as their primary offensive arm and at least some Soviet writers began to think of tank technology as a way to end-run Western technical superiority. Tanks were referred to very largely as troop-support weapons rather than as a means of neutralizing Western armored formations.

Tanks were attractive not merely as a means of achieving breakthrough, but also as a means to awe the populations of the East European buffer states. In 1945 the Soviets already had them in large numbers and hence did not have to devote large human resources to new tank construction. In effect, a tank force was capital- rather than labor-intensive in its use of troops. A force more balanced towards infantry, however, would require the services of large numbers of men urgently required for postwar reconstruction.

Rockets were treated as long-range artillery, as a means of assaulting enemy military assets at long range; probably they were particularly attractive as a means of end-running Western superiority in fighter-interceptors and in air defense radars. In any case, until well into the 1950s, the

state of Soviet nuclear development did not permit the mating of bomb and rocket; the first Soviet rockets, improved V-2s, had HE warheads little larger than those of the original. In fact, Soviet willingness to invest in such weapons suggests rather a faith that ultimately the nuclear-rocket combination would succeed, as it certainly had by about 1957. There was at this time no perception (at least officially) that the great destructive potential of nuclear weapons might materially alter the character, e.g., the duration of a war, as there was in the West at this time. Similarly, Stalin's SAM program produced the SA-1, designed to defeat World War II-style saturation raids rather than the much smaller (but deadlier) attacks characteristic of nuclear warfare.

The official Soviet characterization of this period (1945-53) is that it was a first stage in a "revolution in military affairs" dominated by advances in aircraft and electronic technology and by the mechanization of the army. Radio relay communications became far more prevalent in the ground forces; they would of course be essential in the dispersed tactics suitable to the nuclear battlefield. The second stage, 1954-59, is characterized by the Soviets as one of missile development as well as the stockpiling of nuclear weapons. The ground forces received tactical ballistic missiles.[49] It seems significant that the end of the "second period" coincides with Khrushchev's decision to suspend the 1956-60 Five Year Plan in favor of a new Seven Year Plan for 1959-65. The very deep cuts in non-nuclear missile weapon production occurred during this latter plan.

With Stalin's death nuclear tactics could be discussed. To some extent the Soviet reaction paralleled Western reactions some years earlier: the great destructive power of nuclear weapons would solve many tactical and strategic problems by permitting vast destructive power to be focused over

a short period. Khrushchev epitomized the Soviet "new look": he had interest only in "rocket-nuclear" weapons, i.e., weapons delivering maximum destruction at minimum cost in personnel. This was not merely an interest in weapons of mass destruction; Khrushchev also, for example, preferred SAMs to fighter-interceptors in the PVO, and in fact reduced the number of pilots in that organization. At his most extreme point, in 1960, Khrushchev claimed that long-range rockets would replace both Soviet high-technology services, the Air Force and the Navy. At the same time he proposed a one-third reduction in military personnel, which met strong opposition, and was partly reversed at the time of the Berlin crisis a year later.

It is sometimes suggested that one of Khrushchev's primary motives was to offset the demographic squeeze caused by the very large Soviet population losses of the 1930s (purges). For example, children not born in 1935-1940 would show up as gaps in the draft-age cohorts of 1953-1958. Another motive was almost certainly a desire to use technology to end-run some kinds of Western superiority.[50] For example, it must have seemed that the widespread use of missiles might well counter Western air superiority; it would also avoid any requirement for very large numbers of Soviet attack pilots. Large dislocations were required to make this "revolution in military affairs" work: Khrushchev abolished the separate Ground Forces organization and cut the size of the active Army--perhaps in part because he would have faced severe labor shortages had he not done so. His substitute for mass was nuclear warfare. Khrushchev's image of war in Europe appears to have included massive nuclear attacks which would destroy the main defending NATO armies; armored forces, including troops in fast armored personnel carriers, would sweep through the destroyed regions to exploit the initial strikes and then to seize and occupy the main Soviet objective, Western Europe. The Soviet

BMP APC was almost certainly designed at this time; although it first appeared in public in 1967, it probably existed in prototype form some years earlier, and the concept may well date from 1960 or earlier. Nuclear weapons seemed to imply very short wars in which it would be necessary at the outset to destroy an enemy's military potential, both within and beyond the main theater of operations; typically, then, strategic strikes would accompany the tactical ones. It is not clear to what extent Khrushchev believed that such attacks would invite nuclear retaliation. However, given the basic Soviet assumption that war would come in response to a Western attack, it seems unlikely that Western retaliatory forces would be taken into account as a deterrent. Rather, their effects would have to be allowed for in a war plan which would have posited a Western-initiated world war.

A major effect of Khrushchev's realignment of Soviet military forces was a sharp reduction in the production rates of tactical, non-nuclear, systems: ground-attack aircraft, artillery tubes, tanks. Army formations were reduced and some of the Army's prestige passed to Long Range (bomber) Aviation and then to the Strategic Rocket Forces. It seems possible that Army resentment of this kind of shift was partly responsible for Khrushchev's downfall. Quite possibly his failure to deter the United States at the time of the Cuban crisis of 1962 was taken as proof of the bankruptcy of a nuclear-only strategy at a time when the Soviet Union was inferior in total nuclear resources, and so could not claim escalation dominance.

In any case, soon after Khrushchev's fall production of tanks began to increase and the Army began to expand. The Group of Soviet Forces in Germany was modernized, using new conventional as well as nuclear weapons. At the same time a major expansion in the Strategic Rocket Forces presented the possibility that in the foreseeable future the Soviet Union would enjoy

first nuclear parity and then its own measure of escalation dominance at the high end of the escalation ladder. In Soviet eyes such dominance would serve as a deterrent to prevent NATO from escalating out of a losing battle in the European theater--a battle the Soviets had always been able to provide enough mass to have a chance of winning.

It followed that the Soviet Army could envisage at least initial operations using conventional weapons only. Given its massive resources and efforts to close the technological gaps favoring the West, the Soviet Army might well prefer to fight conventionally throughout a European war. However, it had to take into account the declared NATO strategy of escalation to a nuclear exchange as a means of solving the apparently intractable problems of conventional warfare. Such escalation could be decisive only if Soviet tactics did not fully integrate nuclear and conventional capabilities at the lowest levels. From a Soviet perspective, integration of this type was entirely natural, given a non-political attitude towards the whole range of weapons and weapon effects.

1.10 The Spectrum of Conflict

It is important to keep in mind that from a Soviet point of view armed conflict is only one part of a broad spectrum of means of conflict in what they perceive as a fundamentally adversary relationship with the West. As a counterpart, the Soviet evaluation of the net balance (the "correlation of forces," in their terms) between East and West includes such factors as civilian morale and solidarity, and economic strength. This type of consideration is important, for example, in evaluating Soviet public statements on the consequences of nuclear warfare in Europe; if the Soviet Army expects to have to fight its way across the continent, its task will be greatly

simplified if it can count on, for example, a strong peace movement in the West. The recent campaign against the neutron bomb is an instructive example. The Soviet decision made years ago to deploy long-range weapons such as the SS-20 may well be another, quite relevant to the transition issue, as a major early Soviet objective could be the fragmentation of NATO.[51]

The Soviet view of politics and war as elements on the same continuum implies that the attack they counter by armed force may well be a political one not even recognized as aggressive outside the Soviet Union. In this sense ideology is far less effective as a gauge of Soviet reactions than is Russian history: The Czarists always felt that exposure of their people to outside ideas was at best dangerous. Expansion was a way of eliminating or controlling those dangerous foreigners. By extension, the existence of alternative societies in the West may seem dangerous to Soviet leaders, especially in times of trouble at home. One point of interest is that the widespread Soviet fear of instability within the Soviet Union has never, apparently, been permitted to interfere with the expectation of world "socialist" victory on a voluntary basis. However, in Soviet eyes there is always a degree of pressure from the West; that pressure may well become intolerable due to internal Soviet conditions. At that point the Soviets will, in their minds, be fully justified in striking (back), i.e., of "going first in the last resort." We will see the result as a purely aggressive attack, but such a perception on our part may lead us to misjudge the tactics and the strategy of the attack, let alone what it would take to deter it.

An invasion mounted for pure gain is far easier to deter than is one mounted (in theory) for the (preemptive) "defense of the motherland." That is, an aggressor motivated simply to seize territory makes at least an implicit calculation of probable gain vs. loss; for him war is a kind of business

or gambling proposition with a well-defined and rather limited aim. However, a Soviet-style attacker, motivated by fear of attack, has everything to lose if he does not attack first, since he believes that unless he disrupts his enemies' strike, they will seek nothing short of his total overthrow. This role is sufficiently deeply ingrained in Soviet political mythology that it is difficult to see how any Western statement or action short of preemptive surrender can alter it. On the other hand, the Soviets are well aware that war is at best a very risky undertaking, and so will probably prefer to let the engine of history chug onwards, particularly if they feel that they are successfully deterring us from military action. In any case, most of the Western assaults envisaged are non-military ones which are rather long-term in their effects. It probably follows that Western prewar deterrence is best described in terms of uncertainty in Soviet minds concerning the outcome of a military solution to a non-military problem. However, once war broke out, the Soviets probably would tend to integrate the observed circumstances into their own favorite scenario of the ultimate capitalist gamble. Indeed, their own use of military force would, in their minds, be extremely difficult to limit. Intrawar deterrence would be relatively ineffective, therefore.

These political points may seem out of place in a discussion of the military problems of the transition from conventional to nuclear war in Europe, but it is well to note that, at least in their writings, the Soviets have been most attentive to Clausewitz' dictum that "war is a continuation of policy by other means." In fact, their peacetime policy often seems to be a continuation of war by other means. These concepts are alien to a United States which draws a sharp distinction between periods of war and periods of peace. Soviet appreciation of that difference may shape their view of the appropriate transition strategy.

However, it appears that once a war has begun, the Soviets tend to avoid attempts to use military operations as political signals:[52] they have a large professional military establishment apparently trained in classic style, and an unwillingness to deviate from that style may reflect either the Party's monopoly on political action or else the military officer's skepticism concerning what Western academic strategists sometimes proudly refer to as "counter-intuitive" theories. Soviet military writing emphasizes classical concepts: mass, surprise, maneuver, the destruction of the enemy army as the goal in war. One might go further and say that if the goal amounts to unconditional victory, political messages have very little utility. An enemy surrenders when he feels he has been beaten or when he is unable to continue the fight. If he knows that his surrender is the goal, then escalation risk may have surprisingly little meaning. This has obvious implications for the concepts of a "selective release" phase and a "general nuclear release phase" of a war.

It follows that military forces are to be used in an economical manner: there are many industrial and directly military targets which must be destroyed, and weapons, especially nuclear weapons, are not plentiful. The Soviets surely accept the possibility that their enemy may surrender before he absolutely must, but they cannot expect to rely on such a possibility. Soviet experience in World War II is very relevant here: at least after the Battle of Kursk in 1943, the Germans knew that the Soviets would not accept any negotiated settlement. Although there was some attempt to negotiate with the Western allies, the Germans appear not to have considered any settlement with the Soviets--whom they, after all, regarded as barbarians.[53] Indeed, Germany did not surrender until she had virtually been occupied, and her armies broken. This perception, in fact, motivated the

Soviets to make very large sacrifices in the Battle of Berlin. At the same time the Soviets observed the failure of U.S. strategic bombing: German civilian morale never did break, at least as catastrophically as prewar prophets of strategic air power had predicted. Quite possibly Soviet contacts with Japanese diplomats in the summer of 1945 made it evident that Japan, too, was not a good advertisement for Douhet. It is probably relevant to observe here that Soviet advocates of victory through strategic air power à la Douhet had a very weak bureaucratic base after 1945.[54]

1.11 Scenario Dependence

All of this is not to say that the Soviet Union is constantly poised to strike at Western Europe on some preplanned day. Rather, it is to say that the Soviets themselves have the idea that any war which breaks out may be either (i) the opening of a NATO attempt to extinguish its mortal adversary or (ii) a golden opportunity to assist the tortuous processes of history.[55] In either case there must be a strong feeling that any outcome which does not show considerable movement in the right direction will be a failure. A really committed Russian would go much further and say that it would be a betrayal of all who had died, since the same war would surely come again later, as the fundamental issue had not been resolved.

It would seem to follow that, given an outbreak of hostilities in Europe, the Soviet reaction would be, not to seek the quickest end but rather to seek a quick favorable end. It is often suggested that, in Soviet eyes, time is generally on the side of the enemy, which may explain their interest in a very rapid European victory. A stalemate carries the threat of a gradual disintegration of the Soviet position in the satellites and perhaps even, as in 1917, at home. Hence from a realistic Soviet political point of view,

it may well be better to shed a great deal of Soviet blood to gain a quick decision rather than to chance internal political trouble. Moreover, classical military wisdom has been very much on the side of the short, sharp, offensive as opposed to gradual escalation. Thus, it has been argued that the sharp (but short) campaign entails far fewer total casualties to achieve the same end. Soviet writers tend to emphasize the high rates of advance made possible by modern mechanized equipment. The role of massive firepower is to permit the attainment of such rates. Current Soviet interest in an attack out of a large exercise combines the quick thrust concept with the ideal of tactical surprise which many Soviet military writers extol.

Soviet political theory can transform almost any European war into the capitalists' attempt to sweep away the Revolution, and so into the favored Soviet scenario. However, such a transformation may well so lack reality as to be distasteful to Soviet political leaders. The key question, then, in contemplating a range of more or less violent European war scenarios (such as wars preciptated by East German risings) is at which point the politicians will throw up their hands and tell the Army to clean up the mess. The Czech experience shows that the Soviets are capable of limited operations, but the (technical) clumsiness[56] with which it was carried out suggests strongly that so limited an operation was not included among standard Soviet scenarios.

Similarly, Soviet political theory cannot exclude a NATO nuclear "bolt from the blue"; indeed the relatively soft character of NATO nuclear systems makes such an option quite credible. Probably the key here is that the Soviets simply do not believe that true "surprise attacks" on so large a scale ever happen in reality; surprise is bought only by tactical deception, and if an attack is going to be extremely large only the victim is to blame

for his lack of warning. Long established Soviet (and Czarist) experience in espionage is probably a factor here. Recent analyses suggest that, for example, Stalin had copious intelligence of some impending German attack, although the Germans did succeed in obscuring their precise timing. It may be relevant to note here that the Soviets seem more willing than we to use intelligence assets (e.g., radio D/F) for direct operational purposes. For example, assessments of Soviet capabilities to track U.S. warships (for ultimate attack) generally include the operations of agents in U.S. and friendly ports reporting ship departures. Moreover, space, passive hardening, and numbers are the best possible Soviet insurance policies against the possiblity of intelligence failure. Given warning, standard Soviet doctrine would be preemptive.

An historical analogy may be useful here. Most senior analysts, either remembering or mindful of the events of the 1930s, see the Soviets as the modern successors of the Axis aggressors of that time. The lament rings in their ears: if only the democracies had stood firm, they would have averted war, they would have deterred their enemies. Perhaps, however, 1914 provides a better parallel: two opposed alliances, each nervous of the other's intentions, each fearing the consequences of any act of weakness, each possessing relatively inflexible military instruments with, quite possibly, inadequate means of detailed control. As in 1914, too, it seems that the militarily stronger of the two has (i) more offensive plans, (ii) less net combat endurance, and (iii) is by far the more nervous. Nor do the Soviets possess that range of institutional skeptics who, on the day, might tell their latter-day Czar that perhaps all was not quite as it seemed.

Deterrence was of course still possible even in 1914 terms, but it required the ability to convince the Kaiser that his forces would certainly

lose, while at the same time, it was necessary to cajole him out of the belief that he had been cornered. We might conceivably try for the latter with the Soviets, but we seem woefully short on the former requisite.[57] What is most sobering about the 1914 analogy is the strong possibility that deterrence will prove entirely ineffective, that some (almost random) action by a minor ally (in the Middle East?) will ignite the explosives.

1.12 Soviet Objectives and Nuclear Use

It seems likely that the Soviets feel most secure with a land-force equivalent of the U.S. SIOP: one (or at most a few) basic detailed operational schemes for a sucessful European blitzkrieg. Such plans must of necessity include provision for possible nuclear use once a generalized release has been given; their character would tend to minimize latitude for ad hoc political-military decision-making in wartime.[58]

This approach is alien to U.S. military (army) strategists because it is best suited to an offensive strategy, the aims of which are (at most) only loosely related to the scenario at hand. However, it is the classic form for European warfare, e.g., in 1914 and 1940. Moreover, Soviet practice so emphasizes preplanning and "canning" that it would be natural for the Soviets to have planned in detail what must, after all, be one of their most important potential wartime tasks. From a Western point of view extensive Soviet preplanning may actually be advantageous if NATO can build up a superiority in flexibility supported by effective (and survivable) C^3 and by easily redeployable firepower and maneuver forces. From a Soviet point of view, preplanning is insurance against failures of C^3 and against the accidents of the battlefield: a good plan, rapidly executed, should unfold before an enemy can react. Western tacticians consider this as an

indication of Soviet inflexibility. But ultimately, the basis for Soviet preplanning is that a Soviet Army operation in Central Europe, although perhaps undertaken at some particular moment for transitory reasons, in fact would have objectives only very loosely connected to those immediate reasons.

More objectives can be inferred from Soviet political doctrine, from the fact that on the deepest level the Soviet Union is committed to a change in the status quo. In that light, military emergencies become opportunities rather than potential disasters. The role of military forces is to exploit such opportunities rather than to terminate an (accidental) outbreak of fighting. Clearly Soviet doctrine does not envisage the outbreak of a general European war at the slightest nudge. On the other hand, it does not consider the avoidance of war a positive good in and of itself. An offensive war which either disables a major opponent or else gains considerable resources for the Socialist camp may be evaluated as a very positive step, even given considerable human and material costs to the Soviet side. Indeed, the primary deterrent to such an offensive is that it presents risks which (in theory) the "dead hand" of history does not. Given this image of the potential role of warfare in the development of the World Revolution, it would be surprising if the Soviets believed that NATO harbored no offensive concepts of its own. In that case the potential for fighting a truly limited war in Central Europe would seem rather dim.

In realistic military fashion the Soviets believe strongly that a preemptive attack is the best defense. This doctrine currently holds both for war initiation and for escalation within a war, always with the understanding that escalation is undertaken for purely military reasons rather than as a political ploy. One great advantage of a preemptive strategy

is that it undercuts many of the problems of escalation so significant in Western doctrinal literature. Once the enemy has decided to escalate, there is no point in holding back, only in using resources as effectively as possible. A nuclear strike plan takes so long to formulate that it is unlikely to be altered by late intelligence; the Soviets, therefore, can hope that if their chain of command operates quickly enough preemption will succeed and will catch NATO nuclear weapons on the ground. Even should preemption fail, the results will be no worse militarily than they would have been had the strike not been launched.[59]

Note that because the Soviets believe that nuclear weapons can be decisive, they regard nuclear weapons (as well as C^3) as the prime targets of their own nuclear offensive. It follows by mirror-imaging that they expect their own nuclear weapons to be primary NATO targets. Hence the preemptive Soviet strike must employ all or nearly all of the nuclear weapons in forward positions: weapons not fired will merely be wasted when the NATO strike destroys them. Hence there will be very strong pressures on Soviet commanders to expend their weapons promptly, quite soon after the approval of the preemptive strike. Thus the significance of PALs in Soviet hands is likely to be that they permit last-minute cancellation of the strike, rather than that they guard against unauthorized use. For example, it is our belief that a European war would probably begin with a conventional phase because (i) Soviet calculations suggest that a nuclear first-strike might well prove unprofitable militarily, given the probable NATO military response; and (ii) the Soviets believe that they can always choose later to preempt any NATO decision in favor of nuclear attack. The Soviet conventional buildup has given them the opportunity to fight an effective and prolonged conventional battle, during which nuclear targets may be acquired (if not destroyed

conventionally) and units maneuvered into positions from which they can exploit the effects of nuclear fire; such reductions in NATO nuclear firepower improve the potential nuclear balance. Whether similar attitudes prevail concerning long-range nuclear attack may be another matter, depending on Soviet perceptions of the fire-break (if there is one) between tactical and strategic systems. It must, however, be emphasized that once the Soviets see as their ultimate aim the total defeat of their adversaries, they cannot be expected to exclude from their calculations any level of escalation, but rather must look at escalation control as a means of controlling the cost of that victory.

1.13 The West and the Status Quo

The Western states, on the other hand, are pledged to preserve the status quo. In the large, this means that their war goals are defensive and that they do not, at least openly, contemplate any march to the East in a war with the Soviets in Central Europe. The psychology of the status quo extends to the hope that the Soviets are fundamentally committed to a similar goal. In order to reinforce such (presumptive) Soviet views, Western strategists will disavow as a (European) war aim any intention to dismember or neutralize the Soviet Union as a guarantee against future aggression. If the (NATO) war aim is defensive, it is also to limit damage to Western countries and also to limit any immediate loss of territory. The result is a combination of the current "forward defense" doctrine and an unwillingness to contemplate large-scale use of highly destructive weapons throughout Western Europe. After all, if the war is not expected to resolve anything, then the chief consideration in its execution is to minimize its cost.

By extension, the Western powers seek to avoid war and therefore place great reliance on deterrent strategies; indeed, they conceive of war, and particularly of full-scale war, as the failure of deterrence. It follows that much of military strategy must be designed to threaten further escalation rather than to achieve specific military goals associated with some overall war-fighting goal: attacks become political statements quite as much as attacks per se. In such an atmosphere the step from conventional to nuclear weapons no matter how small is an opportunity to define a firebreak and so either end a war or else limit its scope. This kind of strategy presumes Western escalation dominance, so that even low levels of escalation give pause to the enemy, because they presage far worse to come.

One irony of Western strategy is that, precisely because the tactical use of nuclear weapons is considered an important element of escalation (and indeed a means of ending a war), a large fraction of NATO tactical air assets is devoted to the nuclear mission. Because these aircraft would probably be severely attrited were they to be used conventionally early in the war, they would probably be withheld--thereby helping to reduce NATO's chances for conventional success. Indeed, clearance to redeploy QRA aircraft for tactical (conventional) missions might well take too long for these same aircraft to have the necessary shock effect. In addition, NATO is likely to suffer from the conflict between deep strike (e.g., airfield attack) and FEBA (anti-armor) requirements.

However, given their own emphasis on the nuclear transition, the Soviets are likely to reserve their own nuclear-capable aircraft and indeed to employ substantial numbers of troops to protect nuclear-capable rockets such as FROGs, during a conventional phase. In this sense the very different doctrinal concerns of NATO and the Soviets will produce roughly similar

consequences, as far as effective orders of battle in the conventional phase go. However, NATO may well suffer badly in the early part of a conventional phase because of the considerable potential of the QRA aircraft (in the non-nuclear mode) for slowing or stopping a Soviet armored breakthrough.[60]

The Soviet view of war tends to be far more matter-of-fact: all weapons lie along a continuum, with nuclear weapons characterized by their compactness in relation to their destructive power. Probably the chief Soviet concession to Western political views concerning nuclear weapons is the belief that once their use is initiated by either side, the other will feel free to use them as well. However, the Soviets are far more impressed by the military consequences of such great destructive power wielded by such compact weapons. From a Soviet point of view, moreover, the important distinction is between weapons used on the battlefield and weapons which may strike the Soviet Union proper; it is entirely possible that the Soviets try to separate theater from what they regard as strategic warfare. One political reason such a separation is easier for them than it is for us is the difference in character between the Warsaw Pact and NATO: a West German leader actually can decide that he does not want friendly nuclear weapons exploded in his cities, whereas a Pole almost certainly has no such luxury. However, this distinction loses some of its force in view of the fact that Poland abuts the Soviet Union, whereas there is a physical break between Europe and CONUS. It may follow that the Soviets are more interested in the contrast between nuclear attack on non-nuclear NATO states, and nuclear attack on Britain and France, which may independently choose to counterattack.

Finally, given the immense Soviet investment in conventional ground forces, it must be evident that if there were no nuclear weapons (and no NATO mobilization) the Soviet general purpose forces would have an excellent

chance of defeating NATO--albeit at a high cost. From NATO's point of view the purpose of its strategy is to increase that cost to an unacceptable point; however, given the Soviet view of the dynamics of the situation, it is difficult to say what an unacceptable cost would be. Indeed, from the 1940s on, the central problem of the Soviet Army in Europe has been the offensive West, generally (at least in theory) in response to an initial NATO attack--or, more importantly, in response to the probability of such an attack. Given the massive conventional forces which the Soviet Union has maintained since World War II, the complication introduced by nuclear weapons is that (i) they may destroy enough of the Soviet conventional force to serve NATO as an equalizer and (ii) by tearing up Soviet defensive forces they may permit a numerically inferior (but technologically superior) NATO to succeed in attacking the Soviet Union itself. Moreover, because of the great destructive potential of nuclear weapons, they can make even the shortest war extremely costly: the ability to win, no matter how rapidly, on the ground in the West may not be enough to protect the Soviet Union from massive damage at home. This is a universal perception; the Soviets differ from Westerners in their belief that, since wars may happen regardless of their desires, what matters is the ability to fight them and win while minimizing the cost: history does not end when "deterrence fails." Damage limitation is better done by the destruction of enemy nuclear forces than by some abstract structure of mutual restraint resting upon parallel threat perceptions, especially given NATO's proclaimed willingness to meet a Soviet conventional breakthrough with nuclear weapons.

I.14 Soviet Tactical Considerations

The primary problem in a Soviet preemptive nuclear transition is C^3: the transition becomes a race between the Soviet and NATO chains of command. Such competition must be affected by the current strong Soviet emphasis on "radio-electronic warfare," an extension of EW to include emphasis on the physical destruction of NATO communications and radar systems. Soviet military literature shows an appreciation of the value of counter-C^3 warfare,[61] which is only natural in a top-down society such as that of the Soviet Union; analogous Soviet concerns in strategic warfare show, for example, in the very elaborate measures taken to protect the Soviet leadership and its C^3.

Because the transition decision is a very critical one, the characteristic time involved is not the time between the command to fire and the act of firing, but rather is a complicated function of the entire C^3 network and of its intelligence assets. Denial of hard intelligence concerning a NATO nuclear decision might, then, be an important operational factor in spoiling any Soviet attempt at preemption; clearly hardening of both NATO weapons and of their C^3 is another.

An important tactical problem in a Soviet transition from conventional to tactical nuclear operations is that in the tactical nuclear mode the Soviets must be able to absorb NATO tactical nuclear fire, should some NATO theater nuclear weapons (e.g., those on SSBNs) survive the initial Soviet strike. Just before the Soviet strike, Soviet forces might be expected to disengage (to reduce their own casualties) and then to disperse into smaller battle groups; it might be expected, too, that Soviet development of self-propelled artillery with nuclear shells would be an effort to provide such battle groups with sufficient self-contained firepower to win "meeting engagements" with NATO formations which might survive the initial Soviet strike--a

strike which would have to concentrate on NATO nuclear weapons, given the need to maintain some reserve of Soviet weapons (and so to conserve nuclear weapons). Such dispersal, however, would ill accord with the traditional Soviet doctrine of mass, and at the same time it would impose great burdens on the initiative of low-ranking officers. Soviet practice now appears to have reverted to mass tactics--which in turn place a very high premium on the neutralization of NATO tactical nuclear reserves.

If indeed the Soviets find tactical dispersal impractical, then their requirement for viable mass operations in a nuclear environment stiffens the already severe requirements on their nuclear delivery systems as well as on their strike planners and their reconnaissance assets. The single great preemptive strike must so reduce NATO theater forces that they are unable to take advantage of the massed target that Soviet ground forces will present after the strike. This requirement extends to NATO theater-capable forces outside the immediate theater of operations: Poseidon submarines assigned to SHAPE, carriers in the Mediterranean and in the Atlantic, perhaps even CONUS-based bombers and missiles. Such a perception on the part of Soviet planners may lead, in future, back to a modest linkage between the Soviet theater transition and Soviet strikes on CONUS targets, in which case the survivability of U.S. strategic assets in CONUS may become a pressing concern even in a purely European war.[62]

Given NATO's declaratory doctrine, the Soviets ought to have to absorb tactical nuclear fire even in their conventional mode, but in fact the elaborate NATO nuclear release procedure practically guarantees considerable warning time, and therefore the Soviets can afford their doctrine of transition through preemption. The elaborateness of the NATO procedure is itself a direct consequence of the NATO view of nuclear warfare, a largely

political one. At least at present, NATO is very largely self-deterring. The rationale of the NATO posture is, in theory, that it deters through uncertainty. That would be effective if the Soviets thought of themselves as aggressors, i.e., if they balanced the gains to be had in the seizure of territory against possible costs. However, the Soviet point of view is that their attack is, in general, preemptive, that they will fight because not fighting will only make matters worse.[63] In such circumstances the primary deterrent should be that there is a good chance that the attack will fail; such a deterrent has the advantage of providing considerable benefit even if it "fails," whereas, more commonly accepted Western formulations of deterrence do not. One problem the Soviets have not faced is the possibility (albeit remote) that NATO governments, given advance warning of a Soviet attack, may decide to release nuclear weapons at the outset and so avoid preemption. Nor does Soviet doctrine appear to allow for the possibility that future PALs may permit the wide distribution of nuclear "wooden rounds" in NATO formations at the beginning of a war.

Even given Soviet assumptions, preemption in itself carries very stringent requirements for speed of attack coupled with a high standard of reconnaissance, to ensure the maximum level of destruction of the opposing NATO weapons. At present the great bulk of NATO tactical nuclear weapons are held on land and are, therefore, vulnerable to a Soviet first strike. However, such vulnerability need not continue to be the rule. Even the assignment of submarines and CONUS-based bombers to NATO (without, for example, changing the distribution of land-based weapons) would have a considerable effect on current Soviet expectations concerning the success of their nuclear offensive in Europe. As for urgency, if it is Soviet doctrine to direct nuclear fire first against NATO nuclear-capable units, surely it is the

Soviet expectation that NATO targeting would have a similar rationale. It follows that once the release decision has been made, there must be intense pressure for the use of available weapons, as the (assumed) corresponding NATO strike may well destroy many unused weapons. Given problems of pre-strike reconnaissance, the urgency of the Soviet nuclear strike may result in the waste, from a military point of view, of some fraction of the strike. The contrast with NATO practice is quite marked: a NATO commander would, in theory, have to justify the release of weapons on a one-by-one basis; the Soviet commander would have to explain why he did not expend some of his weapons. The primary direct damage-limiting measure on a nuclear battlefield is dispersion of troops and equipment, which conflicts directly with the requirement to concentrate firepower for effect in a conventional engagement. To some minor extent the unusually long reach of Soviet artillery is a means of compromise. It is also quite possible that the Soviets see in CBW a means of achieving near-nuclear effects without nuclear weapons, especially as they are generally credited with a considerable edge in CBW. Both nuclear and CBW weapons are classed as "weapons of mass destruction," and the same units perform nuclear and CBW decontamination.

The conventional-nuclear transition imposes particularly severe stresses on the Soviet command and control system. It is necessary, first, to react rapidly to information that NATO plans a nuclear strike, i.e., to exploit NATO's own command and control problems. The reaction must include both a plan to fight which must be efficient in view of the value of each nuclear weapon and a plan for redeployment of Soviet forces to minimize inadvertent damage to those forces; for example, it is necessary to disengage from NATO forces about to be targeted. At the same time, mobile exploitation forces must be assembled so as to take advantage of the forthcoming nuclear

strike and secrecy must be preserved in order to prevent NATO from mounting its own preemptive spoiling attack. Soviet forces are subject to extremely centralized control. This entails considerable traffic up and down a lengthy chain of command; for example, units must be located so as to avoid unintended self-damage. The load of decisions on one high-level headquarters, responsible for the success of the offensive, must be immense. One would suspect that, even with their prized cybernetics, the General Staff officers concerned will find their own release and strike planning far slower than necessary for the preemptive role. In theory this slowness should be exploitable by individual Western commanders.

It now appears that, for a time in the mid-1970s, Soviet doctrine envisaged dispersal of Soviet forces for improved survival on a nuclear battlefield. Tactical concentration would still bring results prior to the nuclear strike, but after that it would be essential to break down the massed forces both for survivability and for rapid exploitation of nuclear damage. The development of Soviet SP guns is presumably a reflection of this doctrinal development: the SP gun, particularly if it fires a nuclear round, promises a small armored striking force considerable firepower, e.g., in a post-strike meeting engagement.

For a time, Soviet doctrine therefore envisaged fragmentation of Soviet forces into widely dispersed smaller units for exploitation of the nuclear strike; the SP guns presumably belong to this type of doctrine. However, such fragmentation imposes severe requirements for command initiative at very low levels. It is to be expected that overall communications will suffer badly in a post-nuclear environment, so that the fragmented units will really be very much on their own for extended periods. Despite considerable Soviet efforts to develop initiative in junior officers, this prospect

cannot have been particularly attractive, and it appears to have inspired a reversion to mass tactics even after the transition. Such tactics have important consequences for the character of the transition strike itself.

The Soviets probably argued that, although there are a great many nuclear warheads available in Europe, conventional operations would continue at high intensity even after widespread nuclear use. Formations designed to fight on a mixed nuclear and conventional battleground would have to be capable of surviving exposure to radiation present after nuclear weapons had burst, and they would have to be relatively small, since no land unit would be able to survive a direct nuclear hit. On the other hand, a small unit might well be overwhelmed by any concentration of conventional force it might encounter, and it must have seemed unlikely that the Soviets would be able to achieve such effective post-strike C^3 as to be able to fire long-range nuclear weapons in support of each unit they field. The same C^3 problems might well preclude reliance on Frontal Aviation assets, although the new attack helicopters and the Soviet A-10 equivalent may augur otherwise.[64] Hence their effort at greatly increasing unit firepower, e.g., by the provision of self-propelled artillery on a large scale. Given the Soviet view that the main characteristic of nuclear weapons is their economy (destructive power per unit weight) it seems likely that they would consider nuclear shells for those SP guns the ideal means of assuring their survival after the transition.

Similarly, almost certainly a Soviet officer will prefer an improvement in organic (artillery, or perhaps FROG) firepower to reliance on tactical aircraft, which have not really operated in direct support since the abolition of the Sturmovik units in the 1950s. Indeed, one might read the

development of Soviet deep-strike aircraft almost as an admission that it is best to employ Frontal Aviation far away from friendly troops.

In the West, on the other hand, it is expected that tactical aircraft controlled by ground units will make a major contribution to effective small-unit firepower, e.g., by the use of weapons guided by soldiers on the ground. However, it seems probable that given Soviet difficulties in decentralization their ability to control tactical aircraft at a very low unit level may well be unsatisfactory.

However, the provision of SP artillery would not improve a small unit's chances against tactical aircraft, which are perhaps the primary Western threat to moving Soviet formations. Rapidly-moving formations would find it difficult to maintain effective SAM coverage, and the Soviets must be at least somewhat skeptical of the extent to which their own FA interceptors can help. Moreover, the provision of extensive SAM and AA assets at very low unit levels is quite expensive, both in hardware and in (scarce) specialist personnel. However, reliance on assets not organic to the small independent unit places the usual excessive demands on Soviet C^3 and battlefield surveillance--demands already greatly increased by the enormous depth of modern battlefields.

It may well follow, then, that even the Soviet concept of the nuclear transition plays to important weaknesses inherent in Soviet society, most notably excessive centralization. A NATO strategy exploiting both the Soviet obsession with nuclear weapons and this societal weakness might prove an invaluable lever in our favor.

The concept of preemption is a major element which permits the Soviets to construct a comfortable transition doctrine, but even it raises problems the Soviets may be unable to answer.

PART I END NOTES

1. This lack of ideals extends even to the highest levels. Accounts of debates within the Politburo suggest strongly that, among Soviet leaders, programs are primarily devices with which to beat down opposition leaders. For example, Khrushchev beat down Malenkov, who argued in favor of more consumer spending, then adopted essentially the same position himself. Under such circumstances the significance of any but the most basic doctrinal claims is open to question.

2. Evidence might include the Soviet practice, in the 1950s, of keeping nuclear warheads at some distance from delivery systems, under direct KGB control. In his memoirs, Khrushchev refers to Stalin's reluctance to permit Soviet officers to learn details of the new military technology, including nuclear weapons. Western adherents of this view of the Soviet system also note the concern with Party political control represented by the Commissar system.

3. Perhaps the most prominent exponent of this view is Richard Pipes; see, e.g., his Russia Under The Old Regime (New York: Scribner's, 1974).

4. Lest Soviet subversive operations beyond Soviet borders be considered a novelty of their regime, it should be noted that the Czarist secret police (Okhrana) were extremely active outside Russia, trying both to destroy radical Russian movements and to control local government policy. Many 19th Century writers considered the Czarist state quite as expansive as is the current Soviet state.

5. These would include the Civil War, i.e., the attempt by the Capitalist world to drown the infant revolution, and the Great Patriotic War (World War II)--which began with an ultimately unsuccessful German surprise attack. Some writers, such as Norman Polmar, believe that Soviet willingness to build a major fleet originated with Soviet frustration over inability to break the Italian-German blockade of Republican Spain in the late 1930s. It should be added that the current generation of Soviet political leaders actually held high ranks during World War II.

6. This image is particularly vivid in Soviet accounts of the origins of World War II. However, Soviet political doctrine as a whole stresses conflict. For example, the "dialectic" of dialectical materialism is the conflict out of which human progress is understood to arise. One can make a good case that for the next decades the Soviet Union will be torn between its revolutionary rhetoric and the need to defend the status quo it has achieved. Events in Iran form an example. All nations have a strong natural interest in the sanctity of embassies, yet for some time after the seizure of the U.S. Embassy, Soviet Persian-language radio stations applauded the seizure. They then rather suddenly recanted, presumably as great-power (non-ideological) logic overcame rhetorical inertia. The example is quite relevant to more severe crises: to what extent would the knee-jerk reactions of a highly centralized state apply?

7. The logic here might be that the very centralized Soviet leadership would be unable or unwilling to monitor and control such a situation for long, in view of the many other issues requiring timely resolution. It must be admitted that this did not happen in Czechoslovakia in 1968.

8. One might also suggest that traditional Russian secretiveness forbade extensive references in print to current hardware and even to current tactical issues.

9. This kind of problem was particularly pronounced under Stalin. In 1940 he dictated a forward defense of the Soviet Union; although this strategy proved ineffective in a war game that year, it was continued--with disastrous consequences. One might conclude that although in general professional military questions are and will remain the province of Soviet military professionals, the Party's monopoly on doctrine may well intrude in awkward ways. Stalin chose a forward defense on essentially political grounds.

10. For example, at a recent conference on Battlefield Interdiction, the "strategic goal" of the Soviet Army in an invasion of Western Europe was described as the destruction of the NATO field forces. Just what this would gain--e.g., the seizure of Western Europe--was not debated, even though one might suppose that the character of operations would be at least influenced by issues of Soviet requirements in Europe. Soviet behavior in the invasion of Manchuria (1945), where heavy industry was a major prize, may be a useful guide to the future. Some writers, such as Michael MccGwire, believe that the only serious Soviet war plans envisage an unlimited world war in which North America is to be destroyed, but the industry of Western Europe preserved as a recovery asset. Such a view is certainly consistent with the type of Soviet thinking described here.

11. For reasons not entirely clear to this writer, Soviet specialist training (both civil and military) generally appears to require very lengthy courses; for example, it is said that the course for store clerks is six weeks long, much of it theoretical. It is possible that this kind of pedantry is a reflection of the very bureaucratic character of Soviet society. The need for detailed supervision even at low levels is very striking, as in Belenko's reactions to U.S.-style carrier air operations. A Westerner would suspect that, in an emergency, the destruction of all of that redundant superstructure would have no great effect, but that seems unlikely. The extensive pre-service military training conducted in schools may be taken as symptomatic of the specialist-training problem. One interesting question raised by this situation is whether any Soviet attempt at cross-training can be successful, and consequently, whether Soviet units can continue to function effectively after taking relatively light casualties uniformly distributed among their personnel--as would be the case after nuclear attack.

12. See, for example, C.N. Donnelly, "Tactical Problems Facing the Soviet Army," in International Defense Review, Vol. 11, No. 9 (1978), pp. 1405-1412.

13. Observable consequences include the assignment of support assets such as FROGs to relatively low organizational units, presumably on the theory that fire-support calls to higher-echelon units will not be honored in a timely enough fashion. The advent of SP guns may well have a similar origin.

14. More recently, Soviet-backed forces in Afghanistan appear to have suffered badly in another off-scenario context. Should the current intervention fail to achieve a quick result, it is conceivable that the experience will make Soviet analysts uncomfortable about the possibility of insurgence in their rear in a protracted European war.

15. One favorite is an East German uprising which boils over the border to the West; NATO troops engage Soviet Army units chasing East German mutineers. In this case the motive for a very strong Soviet response is fear of the collapse of the satellites. The West German engagement plays on the Soviet suspicion that it is Western interests which are attacking the Soviet empire.

16. This is why it is so easy for the Soviets to change their "Party line" in an inconsistent manner: there is literally no requirement that the ruler be consistent. By extension, there is no requirement that the Soviet Union follow a consistent strategic policy. However, tactics are quite another matter. Thus there is no Soviet literature connecting war conduct to state policy, as there is in the West.

17. See, e.g., Hedrick Smith, The Russians (New York: Ballantine, 1977).

18. This was the thrust of several articles published in the Military Thought "Special Collection" about 1960.

19. See, e.g., V.V. Druzhinin and D.S. Kontorov, Decision Making and Automation: Concept, Algorithm, Decision (A Soviet View) (Moscow: 1972) Soviet Military Thought Series No. 6 (Washington, D.C.: U.S. Government Printing Office, 1975).

20. This is not to denigrate the calculations involved in, for example, a nuclear strike.

21. Note, however, the recent tendency to assign support weapons in greater numbers at lower operational levels, to overcome time delays in call fire at the higher levels.

22. See, e.g., Harriet F. and William R. Scott, The Armed Forces of the U.S.S.R. (Boulder, Colo.: Westview Press, 1979), pp. 42-43.

23. Perhaps it is relevant to note here that Soviet echelon practice makes any early withdrawal or even any early severe (and unexpected) delay in advance quite embarrassing, to say the least. The momentum of the advance must be kept up quite far back if front-line units are to be replaced, as planned, on a one-for-one basis as they are destroyed. Spacing between units coming out of the Western Soviet Union would allow for some delays, but after a point bunching would occur--at best.

At that point the lack of individual initiative at low levels in the Soviet military might begin to have serious consequences.

24. Note, for example, the existence of a separate organization "of the Rear," i.e., of logistics, production, and reserves. Soviet statements that means of war production are major military targets are consonant with this attitude; it is tacitly assumed that wars can last long enough for wartime production to be a major factor.

25. Note, for example, Brezhnev's comment at the Vienna summit, at which the SALT II Treaty was signed, "that the Soviet Union is not to be blamed for the objective course of history."

26. The absence of Soviet interest in countervalue targeting is sometimes taken to support this contention. However, such targeting is entirely contrary to the basic military principles to which the Soviets tend to adhere. Khrushchev was probably the only serious Soviet advocate of Western-style MAD.

27. Contrast a recent comment by General Milstein, formerly head of the Soviet General Staff Academy, that "there can be no deterrence without a warfighting capability."

28. Similarly, note the violent West German political reaction against NATO programs to dig holes for the wartime emplacement of ADMs, atomic demolition munitions.

29. That is, studies of nuclear use almost invariably show that once the Soviet second-echelon units have come through the initial NATO defense line and dispersed, there are no longer attractive nuclear targets on the battlefield. After that the only targets are countervalue ones. This dilemma is a consequence of the absence of a NATO defense in depth quite as much as of any Soviet thinking on nuclear problems.

30. It is one of NATO's great misfortunes that its consultative machinery is so slow-moving that its doctrine often seems to match the materiel conditions of the previous decade. The current NATO "flexible response" concept (when married to the current NATO military posture) lost much of its value as the Soviets approached rough strategic parity in the early 1970s. This is quite apart from the issue of whether any form of deterrence would be effective against the Soviet Union.

31. These writers (e.g., in the "Special Collection") generally stress defense as well, but admit that for the defense to be effective the greater part of the enemy strike force must be caught on the ground--i.e., preempted.

32. This statement has been attributed to former defense minister Malinovskiy shortly before his death. However, according to a recent study by Joseph Douglass and Amoretta Hoeber, System Planning Corporation, Trends In Soviet Strategy For War In Europe (unpublished), recent defector information suggests that the shift began much earlier, in 1963.

33. This argument has been advanced by Joseph Braddock of BDM.

34. Joseph Douglass has taken this idea a step further and suggested that the Soviets deliberately would fight the conventional battle in order to enhance the effectiveness of the later (inevitable?) nuclear strike. This seems to the current writer an excessive conclusion. However, the primacy of nuclear weapons in Soviet eyes would seem to make for inefficient Soviet strike planning with respect to the purely conventional phase.

35. It is important to distinguish between a Soviet leadership which might welcome any level of destruction short of that of 1941-5 and a Soviet leadership which can perceive so severe a level of damage as something less than the end of Soviet history. In the latter case, the acceptance of damage is far better than a surrender which might literally mean the end of Soviet history. Given traditional Russian concepts of the basis of authority, even a relatively incomplete surrender under foreign pressure might seem to Soviet leaders a form of political suicide.

36. We tend to think of missiles as both expensive and sophisticated, but the German V-1 (not V-2!) program offers a telling counterexample. The suspension of Soviet tactical bomber production about 1960 may have been symptomatic of this view. It must be admitted, however, that at this time the Soviets themselves were advocating replacement of the large, level-bombing light bomber by fighter-bombers better able to counter the array of small mobile targets presented by a NATO army; the SU-7 appeared at about this time. Its relatively small bomb capacity suggests a specification written primarily in terms of tactical nuclear delivery.

37. Even now, the Soviets refer to their long-range bombers as "rocket (i.e., missile)-armed." Until the formation of the SRF in 1959, the missile bombers were considered the premier Soviet weapon.

38. However, note that the Soviet theater bomber program did not terminate with the success of Soviet MRBMs such as SS-4 and -5. Rather, work proceeded on BLINDER (TU-22), a supersonic replacement for the subsonic BADGER. The BLINDER program apparently encountered some difficulties; for example, relatively few (compared to BADGERs) were produced, and few entered Naval service. BACKFIRE is apparently the production and service successor, and the Soviets have claimed for it a variant designator, TU-22M. One possibility is that this was a Soviet internal measure to avoid budgetary constraints on new bomber programs; more probably it was an attempt to avoid admitting to the West that BACKFIRE has capabilities well beyond the theater.

39. Belenko is said to have stated that Khrushchev himself prevented deployment of next-generation interceptors in the PVO, and that MiG-25 production was largely a reaction to this ban.

40. Perhaps significantly, no new Soviet light bomber appeared between 1960 and the middle 1970s, when a new generation of deep-strike aircraft (FENCER) entered service. This suggests the absence of new production

programs initiated under Khrushchev, and appears to parallel PVO experience. A new category, the single-seat fighter bomber (presumably to carry tactical nuclear weapons, given its small bomb load) began with the Sukhoi FITTER; the MiG-23 fighter-bomber appears to continue this line of development.

41. Soviet tank theorists defended the tank as the vehicle best suited to a nuclear battlefield. See, e.g., Col. General N.A. Lomov, ed., Scientific-Technical Progress and The Revolution in Military Affairs (A Soviet View) (Moscow: 1973) Soviet Military Thought, Series No. 3 (Washington, D.C.: U.S. Government Printing Office, 1975), pp. 82-83.

42. Douglass and Hoeber date this shift, which they consider one alternative among many Soviet scenarios, from Soviet inclusion of small European wars, e.g., over Berlin, in Warsaw Pact war planning in 1963, and from journal articles in 1964. We suspect that the true origin of the small-war studies was the Cuban crisis, in which Soviet all-out war forces proved relatively ineffective as a coercive instrument. NATO was shifting to "flexible response" at this time; a Soviet conventional-first strategy is quite effective if NATO begins conventionally. Soviet exercise experience in war-outbreak scenarios calling for large nuclear strikes may also have been involved.

43. Examples might include the stated role of airborne forces and the stated mission of the Soviet Navy: to strike first at the nuclear attack assets of the United States, the carriers and the ballistic missile submarines, while shielding Soviet strategic submarines. Soviet concepts of the place of nuclear weapons in war cut across service boundaries.

44. Moreover, NATO has often said that it will use nuclear weapons to stop a Soviet conventional breakthrough.

45. There are somewhat upsetting parallels here to the character of the Japanese decision for war in 1941, a signal failure of deterrence. The Japanese went to war even though their Total War Institute predicted U.S. victory. They felt their choice was between living like slaves (i.e., submitting to U.S. ultimata) or dying like men. See, e.g., the article on "Japan's Decision For War," in K.R. Greenfield, ed., Command Decisions (Washington, D.C.: Office of the Chief of Military History, 1959).

46. Soviet attempts to prevent the deployment of new deep-strike NATO systems (GLCM, Pershing II) suggest just how much the Soviets want to prevent any shift in this perceived NATO strategy. Western reluctance to purchase these systems reflects in part a fear of just such Soviet reactions.

47. For example, not until the late 1950s did Military Thought print a series of tutorial articles (the "special collection") on this subject, although it must be admitted that some such appeared as early as 1955.

48. This pattern suggests that the Soviets wished to continue using the Sturmovik task forces at the end of World War II, while devoting their

aircraft industry to jet aircraft. There appears not to have been a jet Sturmovik prototype, although this may well have been a function of the state of Soviet jet aircraft development.

49. See, e.g., Lomov, ed., pp. 75-6.

50. However, it is only fair to suggest that Khrushchev's military revolution required, too, vast expenditures (on plant and on R&D) which had to come from some source within the Soviet economy: something had to pay for all of those ICBMs and MRBMs and, more, for their development. At the same time Khrushchev was expanding some consumer production. He had to take account of Stalin's partial personnel mobilization of the Soviet armed forces about the time of the Korean War. Personnel had been cut sharply in 1946 (far more so, apparently, than production). Presumably, the strain of the sheer size of the Soviet Army, at a time of expanding personnel demands and a shrinking draft-age pool, was a serious problem. For example, Stalin's mobilization in itself must have stretched-out considerably the postwar reconstruction of the Soviet Union, particularly as that applied to such low-priority areas as consumer goods.

51. That is, the mere existence of weapons such as the SS-20 threatens NATO nations whose territory has not yet been invaded with severe damage, without at the same time requiring any drawdown of the strategic stockpile aimed at the United States. In an era of nuclear parity, this threat might well prove quite sobering to the smaller members of NATO, particularly given some West European attitudes toward Germany.

52. At least this is the case in Soviet military writings. However, one has the uneasy suspicion that this characteristic may stem from the Soviet-style separation between the military and politics rather than from any deep doctrinal well. Before 1946, U.S. officers exhibited very similar "purely-military" attitudes. Perhaps it is significant that the Soviet political system brooks no iconoclastic RANDs.

53. There have been persistent reports of attempts to negotiate a settlement earlier in 1943. They reportedly broke down when the Soviets demanded a return to the status quo ante; the Germans wanted what amounted to an armistice in place. See, e.g., B.H. Liddell-Hart, History of the Second World War (New York: Capricorn, 1972), Vol. II, p. 488.

54. Stalin was, at one time, a strong proponent of strategic attack for psychological/political effect; he made his officers read Douhet and in the 1930s operated the only real strategic air force in the world. It failed to deliver in Finland, and production problems precluded the kind of modernization which would have made it viable in World War II.

55. For example, the Soviets would probably read a typical Western out-of-satellite revolt scenario as Western-attempt-to-destroy-Socialist block-by-exploitation of (Western-induced) subversion. A particularly frightening possibility is that the Soviets might read a genuinely indigenous satellite revolt as a Western (ideological) assault.

56. By this is meant problems observed in Soviet Army movements, not political clumsiness (using a sledge hammer on an eggshell!).

57. See, for example, Miles Kahler, "Rumors of War: The 1914 Analogy," Foreign Affairs, Vol. 58, No. 2 (Winter 1979/80), pp. 374-76.

58. To what extent the Politburo would be able to decide for war and then leave it in the generals' hands is open to some question. Stalin certainly enjoyed making, or at least (later) overseeing, vital military decisions. Our evidence on more recent Soviet behavior is incomplete, although it may be relevant that after the demise of the current generation there will no longer be leaders who had actual combat experience; the coming leadership generation may, therefore, be very much inclined to leave matters to the professionals. Even the current, militarily experienced, political leaders may have similar views based on the somewhat unfortunate example of detailed Stalinist control early in World War II.

59. The preemptive concept places a large burden on Soviet intelligence. Douglass and Hoeber (see fn. 32) note that the Soviets sometimes speak of anticipating NATO nuclear use, even of mathematical modeling to tell them the optimum time for their own strike. We suspect that in reality the Soviet strike decision will be based on a combination of (necessarily) ambiguous intelligence data and a feeling that the NATO situation demands a NATO strike. A great deal then depends upon Soviet willingness to escalate. A pure, unambiguous preemption involves no real escalation; it is no more than the use of weap is prior to their destruction. Estimates based on perceptions of NATO thinking are something else; the use of a true first strike based on pure calculations of the correlation of forces before and afterwards is rather more, and might well attract Politburo intervention.

60. It is recognized that this problem is very closely linked to Alliance perceptions of nuclear use and of the deterrent presented by QRA aircraft capable of attack on the Soviet Union proper.

61. The emphasis on deception and concealment, and on surprise, are related themes; surprise attacks are effective when they occur over time spans shorter than the characteristic reaction time of the target C^3 system.

62. For example, the Soviets will carry out nuclear strikes as well as they can; they will not abandon preemption merely because some NATO nuclear weapons are, for one reason or another, out of reach.

63. The key consideration, in Soviet eyes, should be ability to eliminate all NATO nuclear systems capable of attacking (and destroying) the massed Soviet Army in the offensive.

64. For example, the Soviets do not appear to have any precise equivalent of our FAC--requests for air support must be passed up the line to an air force commander at a base, then executed. This is typical of the reported lack of "horizontal" (as compared to "vertical") command-and-control elements in the Soviet system.

2. SOVIET INCENTIVES AND DISINCENTIVES TO INITIATE THEATER NUCLEAR FORCE (TNF) EMPLOYMENT

2.1 Introduction: The Science of War

This study addresses the question of Soviet doctrine for theater nuclear force employment. Doctrine has a different meaning in the Soviet Union from its usual meaning in the West. Strategic doctrine, in Soviet perspective, is closer in local meaning to what Americans have tended to call national strategy, British analysts--grand strategy, and French analysts--stratégie totale.[1] By "military doctrine," this author refers, with Western cultural specificity admitted, (1) to the principles that guide postural acquisition; (2) to the principles that guide force application; and (3) to the theory of how force application should secure the political ends of combat. Soviet military doctrine of interest to this study is categorized by Soviet military writers as being tactical (takticheskii)--up to and including divisional level; operational (operatirnyi)--pertaining to action by an army or front; and strategic (strategicheskii)--pertaining to a theater of operations (TVD).

These terminological details probably are far more important than has generally been recognized. It has long been appreciated in the West that the Russian language provided no close approximations to the English deterrence, or the French dissuasion, but it is somewhat startling to realize that a whole category of strategic thought may be fundamentally alien to a native Russian speaker. As Robert Legvold has argued recently,[2] it is difficult to identify any Soviet category of strategic thought between military doctrine (i.e., grand strategy) and the science of war.[3] Nuclear strategy, as expounded (very largely) by civilian defense intellectuals in the West, has been very long on the requirements of pre- and early intra-war deterrence, on escalation control, and generally on what tends to amount

to a tacit bargaining model of nuclear statecraft. The Soviets, who are by no means ignorant concerning the Western literature, simply have no analogues for what Westerners think of as mainstream strategic nuclear theorizing.

The late Bernard Brodie, whose distinguished career as a nuclear-age strategic theorist spanned the years 1945-1978, admitted (or acknowledged) in his last published article that civilian scholars have "almost totally neglected" the question of "how do we fight a nuclear war and for what objectives?"--if deterrence fails.[4] The contrast with Soviet theorizing could hardly be more stark. The Soviet-authored military books translated under the auspices of the United States Air Force, are all books distributed very widely for the purpose of officer education in the U.S.S.R., and those books, which are long on the science of war, and short on what might be termed "nuclear threat and execution as bargaining," tell the story. Clearly there is room for debate as to what the likely implications are of these lacunae in Soviet thinking, but there is scant room for debate with respect either to the fact of the missing elements of Western-style deterrence/escalation theory, or to the strong probability that the fact of those missing elements is potentially very important for our security.

The purpose of this Part 2 of the study is to contribute to an understanding of the way in which the Soviet Union approaches theater-nuclear questions; it is not to pass judgment on the Soviet perspective, nor is it to advocate particular NATO policies.[5] The historical record of debate within the transnational NATO defense (and within its American chapter in particular) community, since early 1957, has shown a very strong anti-nuclear bias.[6] Whether or not this bias has been well- or ill-founded is a question that can be ignored for the moment. What cannot be ignored is the fact of the bias, the very widespread character of its popularity, and the depth

of feeling and judgment that has accompanied it. We are the prisoners of our "strategic culture," for good or ill.[7] This bias, which in many cases does rest upon a very careful and protracted examination of what are believed to be the relevant issues, has to have an impact upon the clarity with which Soviet phenomena are appreciated. To a very important degree, NATO needs an operational strategy which is insensitive in its likely efficacy to the character and details of Soviet strategy--though which takes full account of the same. It could be fatal for NATO to prepare a style of military-political action which can succeed only if the Soviets choose to cooperate. NATO's central strategic concept of "flexible response," and many of the planning details at different levels of force employment thereto associated, depend critically on just such a heavy measure of Soviet cooperation.[8]

It is important that this author's motives and reasoning not be misunderstood. It is <u>not</u> claimed here that:

-- Western strategic doctrine is foolish;

-- Soviet strategy, as best we can discern, is superior to that of NATO;[9]

-- NATO/the U.S. should necessarily emulate Soviet style.[10]

What is claimed here, on the basis of what the author deems to be impressive, multifaceted evidence, is that: the U.S.S.R. does not approach the threat and use of force, in some very important respects, in ways familiar, or even tolerably well understood, in the West;[11] and that there are some noteworthy grounds for suspecting that should the Soviet and NATO "styles" clash in action, the outcomes could be extremely unpleasant for the latter. The difference between NATO and the Soviets is usefully highlighted by the following quotation from General-Major S.N. Kozlov:

> In wartime, military doctrine drops into the background somewhat, since, in armed combat, we are guided primarily by military-

> political and military-strategic considerations, conclusions and generalizations which stem from the conditions of the specific situation. Consequently, war, armed combat, is governed by strategy, not doctrine."[12]

For "strategy," in this context, one may read the science of war. In the United States there is applied doctrinal thinking at the level of planning actual force employment. By doctrinal thinking we mean the principles of force application as guided by the superordinate caveats and opportunities discerned by statecraft at the highest level. In effect, Western strategists, and governments, have taken one tenet of Carl von Clausewitz, that "war is a continuation of politics by other means," almost to the point of logical absurdity. For example, as numerous West German spokesmen have explained, nuclear weapons, if employed at all, would have an entirely political purpose.[13] In the West, strategy, and particularly nuclear strategy, has been addressed almost exclusively in terms of bargaining theory. Game theoretic paradigms, though unrelated in detail to U.S. and NATO nuclear planning, have informed the spirit of that planning. For an understanding of the essence of the Western approach to nuclear planning, one can do no better than to refer to the two collections of seminal, and indisputably very "clever" essays, published by Thomas C. Schelling under the titles The Strategy of Conflict,[14] and Arms and Influence.[15] Schelling's brilliance and plausibility are not at issue here. What is at issue is the relevance of Schellingesque ideas to a world wherein the Soviets might proceed to employ force, including nuclear force, in a very distinctly unSchellingesque manner. For many years Western strategists were very adept at showing how we might deter conflict, or even fare tolerably well, in war games waged roughly according to rules of our making. Somewhat less convincing were analyses that sought to demonstrate either why the Soviets would choose

to obey our rules, or how we might prosper should the Soviets determinedly play the nuclear conflict game according to rules made in Moscow.

A key to the judicious understanding of the Soviet approach to the conduct of war may be gleaned from consideration of a critically important axiom of Clausewitz: writing on the nature of war he asserted that "[i]ts grammar, indeed, may be its own, but not its logic."[16] By some curious quirk of mal-appreciation, Western defense communities have succeeded in violating the sense in both halves of Clausewitz's axiom. The West has a strategic policy, which, in extremis in execution is not formulated so as to serve any political end, while it has also succeeded in neglecting Clausewitz's strong suggestion that war may have its own "grammar." In short, while one should wage war only for very serious and precisely defined political purposes, there is a distinctive military logic to the actual dynamics of war. There is very good reason to believe that the Soviets endorse this idea (sensibly or not). In short, to return to General-Major Kozlov, the conduct of war is the realm of strategy, not of doctrine.

This study, by and large, focuses upon some fairly narrow, even technical--in some important respects--aspects of Western security problems, particularly those pertaining to Soviet theater nuclear employment issues. However, some political perspective may be appropriate, lest the setting for the later detail be discounted unduly. As a section of this study explains in detail, the political character of the conflict scenario should be overwhelmingly important vis-à-vis the politically determined rules of military engagement. Nonetheless, NATO, in its planning, needs a base-case or principal scenario that it must be capable of meeting with some expectation of a not unfavorable outcome. A NATO-Warsaw Pact war in Europe could occur over a wide range of issues--many of which would, logically

at least, carry distinctive implications for the early stages of military engagement.

It has to be admitted that few, if any Western scenario-designers are able, easily and plausibly, to invent a scenario for a premeditated all-out Warsaw Pact assault upon NATO-Europe.[17] But, that admitted, this author will proceed to assert that if NATO cannot cope with an all-out assault, launched following only a very brief (if any) period of mobilization, then NATO does not have an adequate posture and "doctrine" (in its general Western meaning).[18] My house has to be able to withstand a modest hurricane, even though I live outside the area usually threatened by hurricanes. It is our contention that the Soviets would not order a general assault upon NATO-Europe save under conditions characterized by almost unimaginable stress (for them). The Soviets, unlike many Western liberal-minded politicians, tend to be relatively slow to anger (certainly in any action-ordering sense) because, inter alia, they understand, courtesy of Russian/Soviet history and their official legitimizing ideology, that they live in a world which is hostile in important ways. The Soviets, for fairly obvious examples, both despise and dislike their East European satellites (save for the East Germans whom they respect and dislike), detest the Chinese communist "jackals," and respect and fear West Germans and Americans. (Americans they tend to like, but their genuine respect for American economic performance is offset by their distaste for what they see as the decadence of "the American way of life" [by way of sharp contrast with contemporary American mores, the U.S.S.R. is a Puritan country].) The Soviets, in their geopolitical and ideological perspective, know that they are engaged inalienably in a conflict between antagonistic social systems. Western malpractice, vis-à-vis Soviet interests, will be of policy concern to them, but

it will not engender righteous anger. The Soviets know that we are their enemies in an objective sense--and how else should one expect enemies to behave?

An important implication of the above, rather "soft" (though we believe, very important), line of thinking, is that there is a realpolitik-directed rationality to Soviet statecraft (at its best, assuming competent Soviet leadership), as a leitmotiv which often is lacking in the U.S. conduct of foreign policy. The Soviet Union does not take action in the world on points of abstract principle, or honor, in pique, or by way of revenge. Those, as the French would say, are pas serieux. In short, we believe that the Soviets tend to have a relatively high threshold for militarily expressed anger (war is a serious business and one does not wage it for less than serious reasons, or for less than decisive ends). However, once that threshold is reached, Soviet style suggests a determination to secure rapid, decisive results. For example, in Soviet perspective, a NATO-Warsaw Pact war would not be a Schellingesque competition in risk-taking and pain-bearing. Instead, it would be a conflict the risks of which had been assessed fully in advance, which would be waged for the proximate end of securing an unambiguous military victory.

This introductory analysis should not be thought of as reflecting any indifference towards technical or political detail (say, towards the Soviet combined arms posture directly relevant to theater war or political/administrative nuclear release procedures). But, it should be thought of as a protracted statement to the effect that the fine-tuning of Soviet military preparation and, potentially, execution is, and would be, orchestrated according to a distinctively Soviet style. As Bernard Brodie wrote:

> Whether with respect to arms control or otherwise, good strategy presumes good anthropology and sociology. Some of the greatest military blunders of all time have resulted from juvenile evaluations in this department."[19]

We observe that strategic cultural hubris, nominally at least, is sharply on the decline in the U.S. defense community. However, fairly abstract recognition of rather gross asymmetries in weltanschauung, which is where we believe the United States is today, does not begin seriously to address the need for cross-cultural analysis. For example, in very recent years, there has been what probably should be identified as a major intellectual empathetic "breakthrough" (to risk hyperbole) in the recognition of the Soviet war-waging/war-winning orientation.[20] No longer do Western analysts, as a general rule, assume that the Soviets are about the business of accomplishing fundamentally Western aims, though in a distressingly crude Soviet manner. Nonetheless, typical Western understanding of exactly what it is that constitutes a war-waging/war-winning approach to conflict, owes far more to Western categories of strategic analysis than it does to Soviet, at least as expressed in the Soviet military literature. Conservative defense analysts in the United States have long been worried acutely by the possibility that the Soviet Union might be in a position to launch a preclusive hard-target counterforce strike, and that the Soviets might thereby dominate the process of escalation. However, reasonably, one may ask whence these concerns derive? The Soviet defense literature betrays no serious interest in a severely constrained counterforce strategy, as it is understood in the West; nor is it at all obvious from the diverse Soviet sources available, that any close Soviet analogue for the concept of escalation exists.

As noted above, Western defense intellectuals, for many good reasons,[21] long have believed that damage in a central nuclear war could be limited

only through the functioning of intra-war deterrence. The careful management of controlled escalation essentially is a bargaining tool. The Soviets clearly understand the idea of escalation--their heavily political perspective upon the conduct of crisis and war marries easily with such an idea. But, the Soviet understanding of escalation, of the idea that a war could pass through different phases, with distinctive rules of engagement for each phase, is very different from the rich mix of ideas that "escalation" suggests in the Western defense intellectual context. It should not be forgotten that the Soviets retain, vis-à-vis conflict at any and every level, a determination to win.[22] This doctrinal insistence has to have a truly major impact upon a standard Soviet-designed escalation ladder. Also, the desirable character of an armed conflict is different in Soviet, as opposed to Western, perspective. The principle of "the initiative," and the value of its retention, runs through Soviet strategic analysis as a guiding light. "The initiative" carries no guarantee of success, but, ceteris paribus, it should mean that you dictate the time, place and conditions of combat. (In a context quite removed from this particular study, Hudson Institute is considering the likely impact of the Soviet "science of war" upon the Soviet approach to escalation.)[23]

We observe that in 1979. the perspective of our likely major adversary, the Soviet Union, is acknowledged to be an important factor in our strategic planning. For example, in his speech before the Council on Foreign Relations on April 5, 1979, the Secretary of Defense (Harold Brown) spoke as follows:

> We need capabilities convincingly able to do, and sure to carry out under any circumstances [what] the Soviets consider realistic, whatever damage the Soviets consider will deter them. Put differently, the perceptions of those whom we seek to deter can determine what is needed for deterrence in various circumstances.[24]

Such recognition is healthy and should license the U.S. national security bureaucracy to seek out the Soviet view of Soviet vulnerabilities.[25] However, in practice, the process of operationalizing that recognition in U.S. weapon acquisition policy and in NUWEP is very difficult for the system to manage. (Perhaps there is value in knowing the right things to do, even if one cannot do them!)

2.2 "Going Nuclear"--When and Why?

The central problem for this study is the need to identify, in Soviet perspective, reasons why theater nuclear weapons would, or would not, be introduced in a war in Europe. We acknowledge that the evidence provided by Soviet/Warsaw Pact military posture, and by peacetime exercises, tends to be ambiguous (see the next section of this study). However, by way of fairly sharp contrast to Western planning speculation on this subject (i.e., when should NATO introduce nuclear-weapon use?), we believe that the Soviet General Staff has devised what, for want of a better description, may be termed a "school solution."[26] That is to say that, in Soviet military perspective, nuclear employment has been integrated into more general combined arms thinking, and "correct" military solutions have been designed for anticipated military problems. This is not to suggest that those solutions are "correct"--only that solutions have been found. To be blunt, there are anticipated military situations wherein the prompt and relatively heavy laydown of nuclear weapons should vastly increase the prospects for short-term military success. However, the political circumstances of armed conflict may vary very considerably, and scenario-specificity can be of no mean importance.

The "base-case" for NATO concern has to be a premeditated Soviet determination to overwhelm NATO in a theater-wide campaign.[27] This, on political grounds, may be judged to be a very low probability event, but it is the event against which the adequacy of NATO has to be tested. Few Western defense analysts would anticipate notable Soviet self-restraint concerning theater-nuclear use in such a context: the commitment to the achievement of political goals would be too serious to admit of much by way of restrictions on the kind and scale of weapon employment. However, this particular issue raises questions that can only be answered, tentatively, through theoretical "campaign analysis." In looking at possible Soviet incentives and disincentives to initiate nuclear use, we have to look also at Soviet expectations concerning the net effect of bilateral TNF employment. In common with some other analysts of Soviet TNF issues, we are impressed both with the scope and depth of Soviet non-nuclear war-fighting options in Europe, and with the continuing degree to which TNF employment options are embraced in Soviet postural evolution and in the serious Soviet military literature.[28]

Hudson can conceive of situations wherein the Soviets would be extremely loath to employ nuclear weapons; as already cited, the precise scenario is important, but, we are no less persuaded that there are many potential, militarily more extensive scenarios wherein Soviet willingness to resort to nuclear employment would be almost incredibly immediate by Western comparison. We can conceive of escalation from unplanned crises, wherein the Soviets are playing it almost totally "by ear." Similarly, we can imagine very limited, though premeditated, crises of substantial Soviet manufacture, wherein the obvious and immediate political stakes would be very small. In those cases, a "war-fighting" planning framework for the near-immediate employment of TNF would be close to ridiculous. However, with respect to

the base-case, improbable or not, we find some deficiency in U.S. willingness to acknowledge apparent facts. The shortest of short lists of these apparent facts may highlight, by implication, some contemporary problems:

-- The Soviet threshold for the taking of military action in Europe is extremely high (there is no hair-trigger).

-- Ergo, up to a certain point (threshold), deterrence is a very easy quality to maintain. The Soviet motivation to attack is probably so low that the promise of military response need be neither particularly credible nor particularly damaging (in local perspective).[29]

-- But, should the Soviets define a situation as being of a life-or-death character (antagonistic social systems in head-on conflict), then deterrence might be very difficult (or simply impossible) to enforce. In practice, one could quite easily find oneself in a situation wherein scarcely any U.S./NATO pre-war declaratory policy would suffice to dissuade Soviet initiatives.

-- An adequate NATO military posture/doctrine, therefore, has to cope with a Soviet Union that is difficult to deter, and with a Soviet Union that is beyond deterrence.[30] The nub of this problem may well be gaining acceptance within the NATO political leadership.

We are not suggesting that NATO should abandon its aspiration to encourage, or enforce, early intra-war deterrence for prompt war termination--only that NATO needs to be ready to fight the war through to a military conclusion, if pre- and intra-war deterrence fail to function as hoped. In addition, and it would be difficult to exaggerate the importance of this point, NATO must not so conduct itself, immediately pre-war and early intra-war--focusing upon assumed deterrence needs--in such a way that it forfeits any reasonable chance of securing a satisfactory military outcome should the deterrence focus fail to secure early satisfactory results.[31] We suspect, with a great deal of Soviet evidence behind us, that once war begins, the Soviets will bow, in terms of superordinate political direction to what they see as the inevitable dynamics of conflict (or, if you like, to Clausewitz' "grammar"

of war). A large number of Western aficionados of "things Soviet"' have noted, correctly, the Soviet disinclination publicly to entertain any idea of agreed, formal or tacit, "rules of engagement" for nuclear conflict. For example, the Soviet reaction to "the (mis-named) 'Schlesinger Doctrine'" was totally hostile, with no known exceptions. Two reasons probably have driven this negative policy response.[32] First, as the legatees of the world revolutionary cause (in Moscow's parochial perspective), the members of the Soviet Politburo really could not be expected to sign on for some agreed "rules of engagement" with antagonistic social systems; and second, the Soviets happen to believe that it is grossly irresponsible to constrain military actions with political conditions irrelevant to (or erosive of the prospects for) the successful prosecution of armed conflict. As observed much earlier, the conduct of war is the realm of strategy, not of (essentially political) doctrine.

The U.S. defense community has come to accept that the question of theater-nuclear employment is a highly intellectualized, abstract, and--in addition--political matter. All of which is accurate vis-à-vis NATO, but may not be accurate, on the evidence available, for the U.S.S.R. Given that war is a two-way street, regardless of Western prejudices, one would surely expect that the apparent perspective of the adversary would be reflected in a serious way in NATO planning. This is not the case. NATO is postured, and is planning, as though the Warsaw Pact will not have attractive theater-nuclear use options available. (For example, how well do the 108 A-10s in Europe fare if the Soviets, via SS-20 strikes, take out the four forward operating bases in West Germany, and the two generating bases in the U.K. on day one or two of the war?) Unlike Western defense communities, the Soviet establishment appears to understand that war is a serious business

and that a decision to wage war against NATO is, eventually, a decision to wage nuclear war.

For reason of their vulnerabilities, the Soviets almost certainly would prefer that a general war in Europe not go nuclear for several days,[33] but there is no evidence, from any source (known to this author), which would suggest Soviet expectation of a totally non-nuclear theater-wide campaign. However, the political scenario is very important indeed. Why has the war occurred? What were its immediate precipitating causes? If the sole subject for our attention were a premeditated theater-wide Pact attack, we would be willing to specify, on the basis of a fairly robust set of diverse Soviet sources, a close-to-single variant picture of "the Soviet way in theater war." Unfortunately, perhaps, the range of possible outbreak scenarios is too broad to permit delineation of such a clear image of the character of the military style of the adversary. Nonetheless, the probable character of Soviet military performance is very unlikely to show as rich a variety of styles as, in Western perspective, the range of political-military scenarios might permit. As best we can tell, Soviet forces can be, and have been, "fine-tuned" for their crisis influencing effect (for example, through perceptions of their readiness); also, the Soviets appear to understand clearly that perceptions of their relative military standing should have a noticeable impact upon political behavior in crises.[34] But, totally lacking, in terms of Soviet evidence, is any willingness to make symbolic or "bargaining" use of the armed forces. A useful appreciation of Soviet military style may be obtained if one reads carefully Thomas Schelling's Arms and Influence and reverses many of his major arguments.

A statement by then Secretary of Defense James Schlesinger has come to offer undue aid and comfort to Western strategic analysts:

> But, I might also emphasize Mr. Chairman, that doctrines control the minds of men only in periods of non-emergency. They do not necessarily control the minds of men during periods of emergency. In the moment of truth, when the possibility of major devastation occurs, one is likely to discover sudden changes in doctrine.[35]

Taken in context, a fair translation of James Schlesinger's thought, as quoted here, is to the effect that however absurd we deem Soviet military doctrine (in the Western sense of doctrine) to be, in the event the ethic of consequences will likely operate to suggest/compel more intelligent military employment direction. This theme is incredibly dangerous. It can be held to imply that the Soviets are likely to be more willing to behave in a cooperative manner than we have any evidence to believe might be the case. Rather than think through the bilateral implications of Soviet nuclear employment options (in theater and in actual war) which do not fit a Western framework of *intelligent* war-waging, we are, implicitly, invited to discount the evidence available concerning a distinctive Soviet approach to such matters.

Schlesinger's choice of words, with his reference to "doctrines," suggests a tenuous grasp of Soviet reality. Neither he, nor many other senior American policy makers of recent years, appear to have grasped an understanding of the point that when political pre-crisis maneuvering evolves into actual military employment, one is very probably, in Soviet perspective, in the realm of the application of the tenets of the science of war. If this is true, clearly there should be major implications for incentives and disincentives to have resort to theater nuclear weapons. Above all else, perhaps, the employment of nuclear weapons may be viewed, in immediate Soviet wartime perspective, as a military rather than a political matter. This does not deny Soviet recognition of the different quality of nuclear,

as opposed to other weapons, nor does it imply any Soviet official indifference to the details of nuclear readiness and release procedures. But, it does imply a Soviet willingness to view nuclear weapons as a military, rather than political instrument.

The questions of when and why the Soviets might choose to "go nuclear" have to be considered against the backdrop of political scenario diversity. Furthermore, it is not obvious that any amount of study, at any level of classified access, would enable researchers to provide high-confidence answers. It is possible to argue that the Soviets, much like NATO, do not have an authoritative theory for the guidance of theater-nuclear employment. This author does not believe this, but he admits to there being an evidence problem. What the Soviets have been, and are, about in the on-going across-the-board modernization of their theater nuclear forces, in this perspective, amounts to the purchase of options--really freedom of action (long a highly prized strategic quality). In short, any Western defense analyst who sallies forth in search of a fairly simple model of Soviet theater nuclear doctrine, might as well go hunting unicorns. He will not find it because, in any meaningful sense, it does not exist. More to the point perhaps, by way of analogy, Soviet analysts may be puzzled by what they read in the Department of Defense Annual Report, FY 1980.[36] Such analysts might well conclude that the authors of the Report were in the disinformation business. That Report--and this is not intended, in any sense, as a reflection upon its quality--does not lend itself to easy interpretation by those honestly searching after enlightenment on the subject of, for example, U.S. strategic nuclear doctrine. In terms of declaratory policy at least (and the Soviets have to decide just how authoritative that Report is), the Report offers some comfort to almost every respectable school, and sub-school, of strategic

theoretical opinion in the United States. The point of this apparent digression is to emphasize the fact that very large and diverse military postures, particularly when hedged about by a wide array of statements pertaining to employment policy, do not lend themselves to easy translation into (real) use doctrine.

It is possible, if not persuasive (for reasons specified and explained below), to maintain that the Soviets do not adhere even to a rough facsimile of a single vision of a theater nuclear war in Europe. In other words, any Western defense analyst who claims to have "discovered" the true character of Soviet theater-nuclear doctrine has to be retailing snake oil.

2.3 The Evidence Problem

Confident Western claims to an understanding of likely Soviet military operational intentions vis-à-vis a war in Europe are not difficult to discover. There are several schools of thought on the subject, all, roughly, with equal access to the evidence. The most important, and most obvious comment to make upon the evidence available is that it is all indirect. The Soviets have never waged a nuclear war in Europe, or anywhere else for that matter. The experiences of Hungary in 1956 and Czechoslovakia in 1968 may tell us something concerning Soviet style in crisis management, but they may be only indifferent guides to likely Soviet style in actual warfare--particularly in warfare with a possible or even probable nuclear dimension. This is not, necessarily, to imply that the untried and inexperienced character both of the Soviet professional military cadre and of the Soviet mass army, does or would constitute a major brake upon Soviet military activism in a period of acute crisis, but it is to suggest that it is now a very long

time since the Soviet Armed Forces have been observed in action (of course, the same could have been said of the German Army in 1914!).

So, granting the unavailability of recent historical evidence of actual Soviet combat performance and procedures, what kinds of evidence does the theorist of Soviet TNF issues have available? These comprise:

-- Soviet military and military-political literature (supposedly "listening-in" to Soviet in-house debates).

-- Soviet military posture. The technical characteristics of an armed force should provide some fairly solid clues to operational intentions. For examples, the organization, style of command, TOE, kind and amount of equipment, apparent "readiness" (which can be difficult to measure),[37] deployment, intensity of training, reserve and mobilization structure, etc.

-- "Soviet strategic culture." As potentially a high-payoff proposition for the improvement of Western understanding, one can postulate the existence of a culturally distinctive "Soviet way in warfare" that derives from the unique historical experiences of pre-Czarist and Czarist Russia, and from those of the U.S.S.R. This postulate requires one to investigate the character of the Soviet state and of Soviet society--since armed forces, particularly in authoritarian countries, really have to reflect the society from which they stem.

-- Military common sense (i.e., given an empathetic understanding of Soviet problems and opportunities, what would be the more sensible military tracks to follow?).

The Soviet military literature is voluminous, tedious, heavily overburdened with political-tract type writing and, typically, somewhat short on the kind of detail that facilitates Western comprehension of the issues and state of play in a debate. That literature tends to silence on the details of [illegible] and war termination and does not delve into those issues which, for the most part (as observed above), are termed strategic by [illegible]. This is not to imply that close study of the Soviet [illegible] is an unrewarding exercise. (Although, on the basis of [illegible] experience, this author would argue that time spent on [illegible] the Soviets buy and how they operate, today and [illegible]

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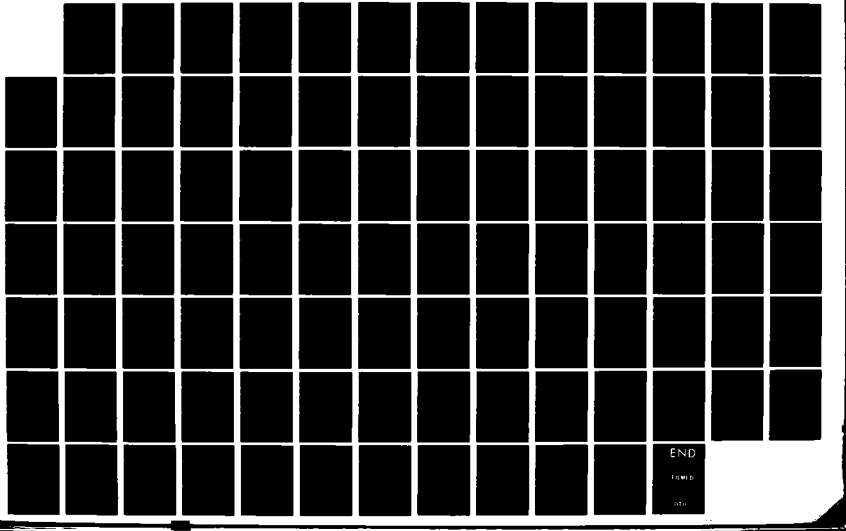

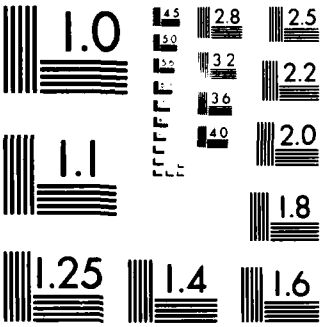

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rewards to the careful student of Soviet affairs than does a careful, even minute, literature search.)

A major problem that Western students of Soviet military affairs have in comprehending the Soviet military literature, is that they are so far outside the contemporary Soviet debate, in strategic culture, in an understanding of the fine nuances of rival positions, and in easy recognition of the "codewords" and near-symbolic references that tend to be employed, that precision in understanding is rarely possible. As a mildly heretical thought, this author occasionally wonders whether some of the interpretations of Soviet operational intentions which flow near-exclusively from the (Western) analysis of Soviet military writings do not do as much, or more, to misinform as to inform. As a general rule such doubts flow not from doubts concerning the competence or motives of the investigator in question, but simply from skepticism over the quality and detail of his understanding of both the debate he is purporting to interpret and its military-political context. As we know from every walk of life, partial--even if detailed--information can lead to the drawing of quite heroically erroneous conclusions. Finally, in the skeptical vein, it is a fact that any field of inquiry wherein there is not a large, detailed, and recognized "body of knowledge," attracts charlatans, opportunists and, slightly less pejoratively, theoretical adventurers. The less that is "known" (according to fairly standard rules of evidence), the bolder can one be--because there are few, if any, people who can <u>prove</u> that one is incorrect. Historians (really almost <u>theorists</u>) of immediately post-Roman Britain are in a professional context in important respects not too dissimilar from Western theorists of Soviet military operational intentions. The latter appear to have a wealth of reference support,

but not all of that support, no matter how detailed the citations, bears up very well under critical examination.

Caveat emptor is a precept which informs Soviet practice--no less should be said concerning some Western theories that purport to explain the character and direction of contemporary Soviet military debate on the subject of the military details, and overall direction, of a theater war. Readers of a fairly bold Western thesis concerning Soviet TNF doctrine, for example, should ask themselves the following questions:

-- Does the author have a near-perfect command of the Russian language? If not, has he availed himself of the services of those who do enjoy such a command?[38]

-- To what extent does his argument rest upon the accurate translation of key terms and concepts?

-- Does his argument conflict with what we think we know concerning Soviet procurement programs, exercise experience, and (historical) style?

-- Does his argument offend military common sense?

To be positive, we believe that a skeptical and careful reading of the Soviet military literature, married to a rigorous search for evidence from other sources, can offer insights into Soviet postural-deployment and operational intentions. For examples, the following observations are appropriate concerning that literature:

-- At "the science of war" level, that is to say not involving questions of Soviet foreign policy objectives, the literature is scarcely less free in its permitted expression than is its counterpart in the West. Admittedly, the qualification registered above is very important. The Soviet military literature (very heavily) by and large, does not involve, even by implication, discussion of policy questions. So, what we can read in the specialized Soviet literature does appear to reflect genuine professional concerns.

-- It does not seem to have any very noteworthy disinformational, or propagandistic, functions. That kind of literature does, of course, abound--but it is of no interest to Western defense professionals. In short, we do appear to have access to

important educational literature intended for the professional edification of the Soviet soldier.[39] What we make of it is another matter.

-- There is a fairly strong case to be made for the view that we should believe roughly what we read. Soviet strategic doctrinal (in the Soviet sense) literature offers an uncompromising vision of greater relative military prowess resulting in greater relative political influence.[40] At "the science of war" level of attention, the Soviet military aims its concerns at morale, appropriate artillery support, the timing of infantry dismount from AFVs, etc. It is probably fairly safe to take most of this writing exactly at face value.

-- The kind of literature that should not be taken at face value are writings by Soviet "think-tank" defense intellectuals out of, for examples, the Institute for the Study of the USA and Canada, and the Institute for International Relations (IMEMO). Vis-à-vis the West, the Institute for the USA and IMEMO are far too heavily impregnated with current-policy propagandizing functions to be trusted to reflect anything other than the official perspective. These two institutes, above others, do undoubtedly contribute to serious Soviet in-house debate, but that is a contribution to which, as a general rule, we are not privy. These institutes are wholly-owned and directed instruments of the Soviet Government. Whatever their domestic policy analysis-contributing function may be, and this author suspects that it is very modest (at least, it is probably of the "don't call us, we will call you" variety), there can be no doubt but that a major function they perform is to interdict Western policy debate, in terms (though not for motives) familiar and eminently acceptable to "liberal" opinion here.[41] An American audience can be impressed by the performance of an articulate and well-dressed Soviet think-tank "scholar" who employs Western strategic jargon in defense of policies of cooperation and restraint. If the public and available literature of the Institute for the USA and of IMEMO truly reflected the desires and actions of the Soviet Government, there would probably be no arms competition between the Super Powers. The Director of the Institute for the USA (Georgiy Arbatov) has told Western audiences, in very direct language and on frequent occasions, that the U.S.S.R. is not seeking strategic superiority, but our knowledge of (as opposed to opinion concerning) Soviet strategic programs is not compatible with that statement.

Soviet military posture has to be the single most important source of evidence in support of claims to understanding of Soviet operational intentions. Disinformation via the written word is one thing, disinformation

via military posture is quite another. It is unfortunate for the clarity of our understanding that the Soviet military modernization program of the past decade has embraced every element of military power potentially relevant to conflict in Europe.

How does one read, for clues to operational intent, a force posture which has modernized, comprehensively, both its non-nuclear and its nuclear elements? To return to an earlier theme--though one which may add more to confusion than to understanding in the West--the Soviets have provided convincing evidence, through the breadth of their postural modernization, and through the richness of scenario detail of their peacetime exercising, that they are determined to invest in a rich (if not opulent) menu of available military options, thereby, in theory, according to the Politburo an unprecedented freedom of policy action. In reality, it may well be that the Soviets are less impressed with their range of military choice than are we.[42]

For example, professional Western Soviet-watchers tend, today, to be impressed both by the Soviet capability for launching an attack à l'outrance, on truly minimal notice (e.g., perhaps four days), initially by forces in place in Eastern Europe, followed by forces very promptly passed forward from the three Westernmost military districts of the U.S.S.R. itself, and by the sheer depth of the Soviet manpower and (stockpiled) equipment mobilization potential. In principle, and at least nominally in practice, the Soviets are postured to wage short or long wars, nuclear and/or conventional. But, the Soviet perspective may well be a little different from the policy considerations that we might (mis-)read from posture. The Soviets may have the generic fear that military operations which are not concluded successfully in very short order could easily come to pose potentially fatal challenges

to the stability of Soviet political control over allied states and perhaps at home.[43] In addition, the Soviets may fear that central nuclear employment, and counter-employment, would alter the political structure of a conflict. Even if that is a low probability Soviet estimate, it refers to a region of conflict wherein Soviet knowledge, and confidence of adequate management, has to be low.

The considerations specified above point to a major difficulty in any attempt to read intended operational strategy on the basis of posture. For more than ten years, the Soviets have been improving everything, across the board. On the one hand this may be read as a major shift from the one-variant nuclear obsession of the early 1960s, towards a far more pragmatic, even opportunistic approach to conflict in the European theater. On the other hand, a dominant, and heavily nuclear-focused scenario, may still guide Soviet planning. The major improvements registered in the quantity and quality of non-nuclear arms are plausibly explainable in terms either of the contribution of such arms to fruitful exploitation of nuclear employment, or to a conservative hedging against the unexpected. Deep down, some Soviet defense professionals may suspect that their mentors in the Politburo would be as reluctant to order nuclear release as NATO politicians would be. More conventional power is always useful in a nuclear context, while it would be truly essential in the event of nuclear pusillanimity.

Soviet military posture, as it bears upon NATO-Europe, tells us nothing in particular concerning Soviet operational intentions. This was not always the case, but it is the case today. The old axiom, "show me your programs, and I will tell you your policy," is not applicable. What is the basis for this judgment? The Soviets

-- have increased dramatically the non-nuclear firepower and maneuverability of their motor-rifle and tank divisions (in that order).

-- have increased the ability of the motor-rifle and tank divisions to sustain non-nuclear combat.

-- have improved dramatically the logistic support for combat divisions that could be called upon from Army and Front.

-- have pursued the high-technology of non-nuclear combat quite as energetically as has NATO (i.e., the Soviets have continued to invest heavily in artillery; in night-fighting equipment; have AFVs superior to those of NATO; have new tanks in engineering development which are at least the equal of the XM-1; have developed an A-10 counterpart; have developed and deployed a rapid-capability that is not matched in the West; and have moved rapidly in the development of a diverse and effective-looking range of PGM's, etc.). In short, the old reassuring picture of NATO quality offsetting Soviet quantity is simply outdated. NATO, today, has no important technological leads, in deployed--or soon to be deployed--equipment. Where NATO does, or could have an enduring advantage, is in military standard operating procedures, or style of direction and management.[44]

-- have modernized the TNF posture "across the board." The Soviets have more, and far more capable, nuclear-capable attack aircraft than in the past, have deployed two calibers of nuclear-capable self-propelled artillery, and have either developed or deployed far more capable replacements for the FROG, Scud, and Scaleboard missiles long familiar to Western planners. With respect to (in-theater) deep-strike capability, since the early 1970s the Soviets have developed, and deployed, the Fencer A attack airplane, the SS-20 MIRVed IRBM, and the Backfire B (Tu-22M) manned bomber.

Military posture, which--in theory at least--should be compatible with operational intentions, cannot be assessed solely in terms of quantity of manpower and quality of equipment. The quality of manpower and the likely responsiveness of the military organization to very demanding tasks are probably more important matters. Indeed, the balance of the admittedly ambivalent evidence available today suggests that the evolution of Soviet tactical doctrine is being influenced more by Soviet judgment of their capability for troop control, and their doubts over the ability of their soldiers

to exercise the proper degree of initiative when confronted with unusually testing circumstances, than it is by any very serious doubts over the possible inadequacy of military equipment.[45] If these thoughts are close to the truth, it should follow that clues to likely Soviet operational intentions may be found fairly deep within Soviet military culture (and, indeed, within Soviet society itself). The meaning of the new equipment and manning levels, the expanded range of options in which the Soviets have invested, should, therefore, be sought within the framework of an understanding of Soviet "style."[46]

The Soviets do nothing in a fine-tuned manner, that is to say with finesse or with the paying of great attention to the margins. Historically, this statement has been as true of military action as it has been of nearly everything else Russian or Soviet. The Soviets, holding the Third Rome, may be the inheritors of Byzantine cunning, intrigue and deviousness, but their fundamentally peasant culture has inherited few, if any, of the more subtle and sensitive skills of Byzantine statecraft. The long familiar image of the "Russian steamroller" is entirely accurate--and for reasons that are as deeply rooted today as ever they were. The Soviet armed forces should be thought of as a cudgel, not a scalpel. When seeking to interpret Soviet military posture for the divining of some indication of how it might be employed in action, it is very tempting to be over-impressed with the surface of capability, and to ignore the fact that these are Soviet/Russian armed forces that one is examining.[47] NATO analysts should take very seriously the proposition that Soviet military power is a blunt instrument of enormous shockpower.

The "daring thrust," and related classical cavalry/armored warfare concepts, which some Western analysts recently (1976/77) claimed to have discerned in the Soviet military debate,[48] are almost totally out of keeping with Soviet military style. The "daring thrust" thesis has been suitably interred by the first echelon of Western experts on the Soviet Army. As John Erickson has commented wryly, when reviewing the Soviet military press of 1978: "[n]ot a 'daring thrust' in sight..."[49] This is not totally to dismiss the claims of those who believed that they had discovered a "revolution in Soviet tactical doctrine"; it is only to assert that (a) that "revolution," if genuine in potential, apparently was aborted; and that (b) even the original "discovery" would appear, in retrospect, to have rested upon a somewhat colorful interpretation of the Russian language.[50]

The details of Soviet military practice are, of course, very important, but, very often, the people best suited to discern the detail are not the people best suited to interpret that detail. Also, the detail, which we should attempt to understand as best we can, is less important than is the quality of our appreciation of "the Soviet way of war." For example, it is of inestimable importance to have a confident judgment as to whether the Soviet army would be wielded more like a sabre than a rapier. The precise detail of Soviet operations cannot be predicted in advance (barring intelligence information of a quality and timeliness that we have no business assuming would be available to us), but we should be able to predict the kind of war that the Soviets would attempt to wage.[51]

Probably the most important, though also the "softest," source of evidence concerning Soviet operational intentions is what should be termed "Soviet strategic culture" (though the use of the adjective "strategic" can cause some problems). In the words of one student of this subject:

> Strategic culture can be defined as the sum total of ideas, conditioned emotional responses, and patterns of habitual behavior that members of a national strategic community have acquired through instruction or initiation and share with each other with regard to nuclear strategy."[52]

Non-rigorous though it sounds, the basis for the acquisition of a proper "feel" for Soviet strategic culture can only be a deep immersion in things Soviet (and Russian), and particularly things Soviet (Russian) military.[53] Mr. Snyder's definition is useful, save only for its needless restriction of subject to nuclear strategy. Paradoxically, until the nuclear age (on the American side) there was an interesting parallel between Soviet/Russian and American strategic culture. Because it is a democracy, the United States could, and can, fight effectively only in popular wars. In American culture, traditionally, war is an extraordinary event that is justifiable only for the most rousing of causes. A very large number of commentators have noticed the crusade-like character of "the American way of war."[54] When the United States government declines to mobilize the country for total war, and decides not to press for the total defeat of the enemy (as, for obvious examples, in Korea and Vietnam), the country tends to have acute difficulty making political sense of the conflict. Popular American sentiment is to the effect that a war that is not worth the cost of winning, cannot be worth the cost of fighting. American practice since 1945 has offended against the basic strategic culture of the country, while the negative public reaction to that practice suggests how strong and enduring is that culture.

Soviet/Russian strategic culture is very close to the traditional American preference for the waging of war with near-unrestrained ferocity in order to inflict total defeat on the enemy--though for different reasons. The vulnerable geopolitics of the Soviet Union--its very long land frontiers, absence of natural barriers to invasion and, throughout history, the proximity

of unfriendly neighbors--has produced a strategic culture which requires the country always to be semi-mobilized for war, which assumes the hostility of others, and which generally recognizes the possibility of national tragedy. Russian history does not encourage its contemporary legatees to take anything other than a very prudential approach to their security problems.[55] In Russian and Soviet experience, some of it fairly recent, war tends to place the national territory immediately at risk. An insular Power very often is free to choose how intensive a war it will elect to wage, a continental Power is less fortunately situated.

Following Clausewitz, the Soviets believe that war can have meaning only in political terms, but--again aprèss Clausewitz--they believe that war has laws of its own which must be obeyed if success is to be ensured. Soviet military science is unambivalent in its enthusiasm for the military initiative (preferably beginning with the achievement of initial surprise)--the adversary is to be kept off balance: a cardinal principle of armored operations (strategy is more a matter of disruption, than of destruction, of the enemy). In Soviet perspective, a "stable" situation is one which they control. This (unilateral) control focus helps explain Soviet lack of enthusiasm for Western ideas of mutual deterrence. The Soviets are uncomfortable with the idea that the security of their assets reposes in restraint, even coerced restraint, exercised by others. In Soviet strategic culture, from strong preference, an enemy is physically restricted in the damage that he might choose to inflict.

A summary profile of Soviet strategic culture has to include the following elements:

-- By definition, the outside, non-Soviet-controlled, world is hostile, actually or potentially. This perceptual, and now ideological fact may be traced to the national scars

inflicted by the Mongol Conquest, the adventures of the Teutonic Knights, the ravages of Polish, Lithuanian, and Swedish militarism, and later by the experiences of French and German invasions. All that matters for our purposes, are the facts of Soviet xenophobia and paranoia.

-- International politics is judged, in Moscow, to be a story of continual struggle--more or less violent in instrumentalities as circumstances change. The idea of stable frontiers, or friendly non-(Soviet) controlled neighbors, is totally alien. As a German geopolitician once said, "[b]oundaries are fighting places."[56]

-- The U.S.S.R. will not feel "secure" until it has effective control of the entire globe. Some apologists in the West for the Soviet military modernization drive of the late 1970s have argued that the momentum behind Soviet military programs reflects nothing more sinister than a deep Soviet sense of inferiority: they will never believe that they have "enough" to counterbalance the superior quality of Western military programs. Unfortunately, perhaps, this argument, if reflected in matching Western policies, is an invitation to disaster. We may believe that the Soviets are moved by a very deep-seated sense of inadequacy, and we may even empathize with that Soviet problem, but we cannot ignore threats posed by their military programs, which may be driven by their psychological problems. We lock up some mentally ill people, even though we understand that they are ill rather than consciously vicious.[57]

-- The Soviet Union is a continental land-power, first and foremost. (It is difficult to decide whether we should be more impressed by the navy that Admiral Gorshkov has built, or by the fact that Admiral Gorshkov managed to have such a large and competent navy built at all--in a political context so fundamentally unsympathetic to sea power.) Western commentators are prone to observe that the differing geopolitics of the Super Powers compel differing strategic perspectives[58]--which is scarcely a profound observation. However, if one proceeds much beyond the banal there are some profoundly important implications for NATO posture and doctrine. The United States has long acknowledged that security in Europe is a vital American interest, but that security pertains, in American perspective, to a (though admittedly a very major) theater of potential operations. In Soviet perspective, NATO-Europe is very substantially contiguous (with the Soviet Empire, if not the Soviet state) territory. Warfare in a contiguous "region" is far more serious business than it is if it is 3,000 miles away--and one should expect that that seriousness would be reflected in the character of operational intentions. For reasons of real-world geography, it is very difficult to outline a plausible analogy for the United States. At some considerable risk of oversignaling

the point, consider a Soviet invasion of Canada or Mexico. NATO's still-authoritative dominant strategic concept of "flexible response" (à la MC-14/3 of 1967), properly translated, amounts to the proposition that "we will try this, then we will try that and, if really pressed, we will try more of that--while, if disaster really unfolds, we will try something that we find almost unthinkable--etc." In the context of the American bargaining theory of conflict, Schelling et al., MC-14/3 is entirely reasonable (if the various military balances accord NATO the required measure of freedom of action). But, "flexible response" for NATO is not the kind of guiding strategic concept that you adopt if you believe that your essential assets are at immediate risk. Indeed, "flexible response" for NATO is distressingly reminiscent of the U.S. approach to the coercion of North Vietnam. (Readers may care to recall that still-current NATO strategy was designed by the same team that guided U.S. "strategy" in Vietnam.)

To summarize, Soviet strategic culture is informed, accurately, by the proposition that the Soviet Union cannot afford to lose, or even not to win, a war in Europe. Defeat in Europe would/should be a survivable catastrophe for the United States; it would not be survivable for the Soviet Union.

-- The details of Soviet military planning, including TNF employment, have to reflect the unique Soviet strategic culture. If our analysis is correct, it follows that the Soviets would be very loath to place their system at risk via the initiation of military operations against NATO, but that if they did so choose--presumably for reason of desperation over their ability to hold the Empire together--they would have to seek a military decision. One may wage an indecisive war an ocean away, but surely not, at least by choice, on one's frontiers.

Last, but not least, Soviet phenomena lend themselves to interpretation in the light of what appropriately may be termed military common sense. Soviet military preparations, as best we can judge, match the statements of Soviet political leaders and military commentators, to the effect that war has its own grammar. Soviet military science lays claim to an objective scientific basis. In the event, the Soviets, at the highest levels, might find merit in Western-style theories of bargaining and escalation--for political effect. But the evidence available, as of today, suggests

that the Soviets are prepared to fight a war in Europe the way a war in Europe should be fought according to the criteria of military prudence. Just what is, and is not, prudent is of course scenario-dependent (the subject of the next section of this report). If the Soviets decide to wage war (i.e., this is not a rather ad hoc escalation out of an unplanned crisis) in Europe, NATO should anticipate Soviet TNF and chemical weapon employment, as the Soviet military situation requires. The Soviets will not resort to nuclear use lightly, but neither will they hesitate to use nuclear weapons, or fail to use them in (intended) decisive quantity. In short, TNF will be employed to solve particular military problems.[59]

The Soviets, we may be sure, would prefer to wage and win a short and sharp nuclear conflict in Europe, rather than attempt to endure a lengthy, and potentially indecisive, non-nuclear campaign.[60] Indeed, if a protracted non-nuclear stalemate appeared to be emerging, NATO should anticipate a Soviet TNF breakout. In Soviet perspective, TNF are only weapons of unusually concentrated energy. It is dangerous to coin candidate axioms, but this author believes that the Soviet political leadership and general staff would endorse the proposition that "any war worth fighting is a war worth the employment of nuclear weapons--if they are judged to be necessary for the achievement of victory."[61]

Soviet military "doctrine" (in Western terms), for which read Soviet military science, offends the sensibilities of Western commentators because it is overwhelmingly military in content. As noted in this report several times already, there is no lively debate in the Soviet journal literature over what we would term "strategic" questions. Lively debate is confined to such burning professional issues as the proper time to dismount infantry from armored fighting vehicles, and the combat readiness of troops ordered

into battle on minimal notice. NATO would do well to consider the possibility that once the Soviet Union decided on war (for impeccable Soviet political reasons), the conduct of that war might be left near-totally to professional military direction.[62]

2.4 Conflict Scenarios and the Nuclear Initiative

Soviet military science is eloquent on the subject of the efficient application of force, but it tends not to be informative on the relationship between the conduct of war and the political character of the conflict. A firm connection is axiomatic in Soviet perspective, a fact which may go a good way towards explaining the absence of overt analysis.[63] Also, war-outbreak scenarios must require some foreign policy judgments--a realm of contention which transcends the license of Soviet writers on military affairs. As noted earlier, Soviet military posture does not yield anything that even approximates clear evidence concerning a dominant political scenario. The Soviets have invested in potential freedom of foreign policy choice--they could wage large or small nuclear or conventional wars in the European theater. A fairly simple matrix serves to illustrate the basic structure of the problem of attempting to relate Soviet nuclear use decisions to different political contexts.

	NUCLEAR LAY-DOWN AT THE OUTSET	INTRA-WAR NUCLEAR INITIATIVE	PREEMPTION[64]	NUCLEAR RESPONSE
PREMEDITATED THEATER-WIDE ATTACK				
LIMITED, THOUGH MAJOR, ATTACK				
ESCALATION FROM AN UNPLANNED CRISIS				

Figure 1. Soviet nuclear use in different scenarios: a matrix.

A matrix such as this in Figure 1 can be expanded in its menu of possibilities almost to taste. However, these twelve possibilities are adequate for the expository purposes of the author. There is every reason to believe that the Soviets will not hesitate to employ theater nuclear weapons when and if they are deemed essential for the solution of military problems. The nuclear fetishism of the Khrushchev era may be long past, but authoritative Soviet texts of more recent vintage continue to laud the "decisive" virtues of properly applied nuclear firepower.[65]

We have no way of telling whether or not the Soviets expect to be compelled to wage a war in Europe, nor if they have some dominant vision of its political context. In their terms, their "objective" and "scientific" study of historical processes tells them that the final crisis of bourgeois society must occur sometime, and that desperate and heavily armed bourgeois elites are likely to attempt some very dangerous adventures. Again in their terms, the Soviets cannot know whether war will come as a consequence of their being compelled to intervene against one or more capitalist societies in aid of fraternal forces; whether they will have to decide for war in

order to "prevent" (a favorite Soviet term) a desperate NATO from seizing the military initiative; whether a general theater war might erupt out of turmoil in a Warsaw Pact ally (caused by obsolete local nationalist sentiment manipulated by foreign elements); or, whether war might not come as a consequence of a Soviet initiative in the face of apparent Western weakness (which transpired to be more apparent than real). No amount of research can tell us when and why the Soviets will choose to go to war. Soviet military planning, as evidenced in posture and exercises, prudently prepares for nearly everything that a reasonable man would deem to be not-implausible.

Scenario writers have difficulty inventing theater-wide wars in Europe (initially) which the Soviets elect to start in a coldly premeditated, calculating fashion. However, that fact should not impress us very much.[66] What should impress us is the Soviet capability for waging major war. Given the possibility that the history of the 1980s may surprise us unpleasantly--and produce a real-life scenario in which few would have believed in 1979--it is our duty to worry about the military options potentially available to Soviet leaders. The Soviets, we may be sure, would not lightly, casually, or needlessly, expose their armed forces, let alone their state and society, to nuclear damage. But, any state which engages in a theater-nuclear force modernization and build-up program on the scale of that currently under way by the Soviet Union, clearly is investing in a set of employment options which it approaches with the utmost seriousness. (Indeed, this seriousness argues for some control mechanism on the part of the Soviets.)

Of the three categories of conflict scenarios specified above, only in the case of the escalation from an unplanned crisis would the Soviets be likely to be willing to pay a noticeable military price in the hope that the conflict would not enter a nuclear phase. In other words, one

can conceive of clashes of arms, even expanding clashes of arms, that the Soviets had not pre-planned and where, even, they might not have any immediate policy objectives to secure vis-à-vis the West by military means. Possible scenarios of this ilk include border and maritime incidents that occur almost spontaneously. Such scenarios can be written (and have indeed been written recently by Hudson Institute staff),[67] although, almost invariably, their credibility tends to be on the modest side.[68] But, they could happen--and they comprise a category of accidental conflicts wherein both sides, consistent with reasonable definitions of the requirements of national honor (since reputation has to be protected), would have prompt termination of the fighting as a, and possibly the, primary policy goal. Even a Soviet Union locked into military dependence upon nuclear firepower (unlike the Soviet Union of today), should be expected to hesitate long over a decision to introduce nuclear use into a category of conflict such as this.

Of greater interest to NATO planners are the cases of premeditated Soviet attacks of different scopes. In the admittedly unlikely event of a Soviet attack, theater-wide, in Europe, we should understand that theater-nuclear employment decisions almost certainly would be matters for professional military consideration. Soviet willingness to employ nuclear weapons, and probably several stages of the decision-sequence concerning nuclear release, should be understood to be implicit in the Soviet decision to wage war. It would be absurd, in Soviet terms (and indeed in terms of common military prudence), to decide to wage war, but to defer decision on the availability of nuclear weapons to Front commanders until moments of dire local (or beyond) need arose. If one believes as strongly as do the Soviets in the merits of preemption (or execution in anticipation), one does not knowingly imperil the prospects of success for preemption

by constructing a chain of command vis-à-vis nuclear use which would have to impose a delay which might prove fatal. This is not to suggest that the Soviets are indifferent to the security of their nuclear weapons, nor that they have failed to consider some of the more obvious hazards that could attend premature delegation of nuclear firing authority. Traditionally, the Soviets have been extremely, perhaps even excessively, attentive to the issue of the security of their nuclear weapons.

To explain some of the more puzzling asymmetries, or apparent asymmetries, between the U.S./NATO and the Soviet approaches to nuclear release issues, one has to have resort to the near-fundamental differing approaches to nuclear weapons of the two sides (this, yet again, is a matter of strategic culture and military style). War in Europe, in Soviet perspective (as it should be in NATO perspective also), would only be undertaken for the most serious of political reasons. Consistent with a very responsible attitude towards the minimization of possible damage to the essential assets of the Soviet state, the Soviets would seek victory. They would not wage a major, though limited (say perhaps, confined to West Germany territory only) campaign, let alone a theater-wide campaign for such reasons as: state honor; to make a political point; to weaken the adversary; or because Soviet military analysts predicted success.[69] For all its well-known (and some not so well-known) deficiencies, NATO remains a very heavily armed alliance, with an overwhelming (though long-term) mobilization potential, and with many of its military assets deployed far removed from the immediate battle zone.

There is good reason to believe that the Soviets assume a theater-wide war in Europe inevitably would, eventually, be a nuclear war. By way of prefatory comment to discussion of the four-fold subcategorization

of Soviet nuclear employment choices presented in Figure 1, it is essential that readers appreciate that the Soviets insist that politics be the master of doctrine/grand strategy, and that grand strategy be the master of military science. As Bernard Brodie and Thomas Schelling insisted for many years,[70] the Soviets--on grounds both of elementary prudence and of military common sense--simply would have to assume nuclear resistance by NATO (even to a non-nuclear Pact attack).

The Soviets, with their very careful attention to the details of military scientific knowledge, are entirely aware of the dangers and uncertainties of bilateral nuclear employment. But, perhaps paradoxically, they are no less aware of the military (and political--though this, very probably, would be a secondary consideration) benefits of nuclear use. By way of contrast to NATO-Europe and the United States, the Soviet military establishment has attempted--perhaps successfully (only experience could tell)--to integrate nuclear weapons of all kinds into its military planning, according to criteria of military utility. (The question of Soviet capability to go "both ways," i.e., plan for integrated warfare and then not use nuclear weapons, is a subject for another discussion.) This approach is close to incomprehensible to many Westerners, even to some who have defense planning responsibilities. In short, the Soviets appear to have sought "correct," scientific, solutions to the question, "when, and how, do we fight a nuclear war?" Nuclear weapons are not consigned essentially to a "political effect" category--meaning that it is extraordinarily difficult to devise rigorous military requirements for their design and procurement. (Much of the contemporary NATO debate, if not confusion, over theater nuclear modernization is the direct product of the absence of a NATO nuclear war-fighting doctrine. If NATO does not know how many weapons, and of what kinds, it needs to

fight the land, air and sea battle, its posture tends to be at the mercy of the domestic political vagaries of alliance members--which can be serious, and have to be taken seriously, but have little to do with the construction of a robust defense posture vis-à-vis the Warsaw Pact.)[71]

In a war which they have chosen to initiate, we should assume that the Soviets would prefer to win conventionally, but that they would rather win with the help of nuclear use than face clear defeat or stalemate conventionally. There are some complex connections between theater and central war in the more serious cases envisaged here. For example, if the Soviets anticipate great success in damaging NATO's in-theater nuclear assets (and particularly the C^3I which enables NATO to command and employ those assets) during a conventional phase of a war, they would have to anticipate placing a U.S. President in a position where he would acquiesce in defeat in the theater, or resort to the employment of central nuclear forces for theater purposes, or escalate to central war. Given the Soviet devotion to the concept of surprise, to the insistence upon the assumption and retention of the initiative, and given the Soviet friendliness to the idea of physically controlling a situation--one begins to wonder about the integrity of the concept of theater (albeit strategic, in their terms) conflict in Europe.

This author is persuaded that the strategic balance, as it is predicted to evolve through the 1980s, might persuade Soviet leaders that they could chance the "deterring [of] our deterrent," as Paul Nitze insists,[72] but this is a somewhat un-Soviet thesis. If the Soviets anticipate American use in desperation of part of the Minuteman force against their general purpose forces, the temptation to preempt the U.S. ICBM force would have to be assessed to be considerable. Logically, the more successful the

Soviets are in destroying (preventively or preemptively) NATO's theater-nuclear posture (on and off-shore), the greater the danger of U.S. employment, in a tactical mode, of its central nuclear forces. American strategic culture may tell us that our (central) deterrent would be deterred, but that line of argument may be unhealthily culture-specific to us. Almost needless to say, should the Soviets believe that they would be compelled, on military grounds, to attack U.S. central nuclear forces fairly promptly, that belief could have interesting implications for the Soviet attitude towards the timing of nuclear employment in the theater.

On the one hand, we may be sure that the Soviets would not recklessly invite American (central-force) nuclear employment against the U.S.S.R. at home. But on the other hand we may be fairly sure that the Soviets would not endanger the success of a campaign against NATO-Europe for fear of such (counter-) employment.[73] It is difficult to avoid the tentative conclusion that the Soviets would not choose to go to war unless they were confident that they stood an excellent chance of winning both in the theater and at the intercontinental level. (The comments in the past few paragraphs comprise only a bare introduction to the vastly complex subject of the relationship between theater and central conflict.)

In the case of a major, though limited, Soviet attack Westwards (say, intended to detach West Germany or Norway from NATO), the Soviets might well harbor very serious hopes to the effect that the speed of their advance would outrun NATO decision-time on nuclear release. In the case of a theater-wide attack, the Soviets are unlikely to believe that they could accomplish a fait accompli prior to NATO taking a decision on nuclear release, but they might believe that in this latter case, by the time NATO had approved nuclear action, it would have few local nuclear assets remaining, and even

fewer remaining with which it had adequate communication. (This, in part, is the subject of the companion study on Soviet transition issues, and so will not be developed in detail here.)[74] However, it could be a grave error of judgment on our part to cast Soviet nuclear strategy within a familiar framework of NATO logic. For example, although the Soviets do stress preemption vigorously,[75] there are good reasons to believe that on the "incentives" (to use) side of the Soviet nuclear-weapon employment decision process, the preemptive theme would only be one theme among several.

2.5 Incentives and Disincentives to TNF Employment

Without specifying the political context for a conflict in some detail, and in the absence of knowledge of the military situation confronting both sides, one cannot, responsibly, offer even a rough facsimile of how the Soviets would view the balance of advantage and disadvantage vis-à-vis the initiation of nuclear employment. But, we can elucidate the structure of the issue and make some general judgments concerning the kind of decision that Soviet strategic culture and military style would be likely to favor. All too often, confident-sounding assertions are made to the effect that the Soviets would begin a war in Europe with a massive, theater-wide, nuclear lay-down, or that the Soviets expect to be very successful in their conventional assault and would be highly motivated to delay the active introduction of nuclear weapons for as long as possible. Assertions such as these, and their many variants, tend to rest upon consideration of only a very restricted set of factors that are assumed to dominate Soviet decision-making.

It is important to remember that there will nearly always be arguments pro and con nuclear use, and that our (and Soviet) total lack of

real historical (as opposed to exercise, war-game, and operations research) experience of conducting a nuclear land battle may cause both sides to exaggerate, or to underestimate, costs and benefits. Very rarely indeed in historical experience has a new weapon been employed "correctly" in the first campaign in which it was introduced.[76] It is unlikely that theater-nuclear weapons would prove to be an exception to this general truth.

First, in summary form, what might be the incentives that would incline the Soviet Union to have resort to theater-nuclear employment?

-- To solve a military problem.

-- To deny NATO the benefits of the first strike initiative, and the advantages that could flow therefrom vis-à-vis the resolution or alleviation of its military problems.

-- To economize on time.

-- To economize on expenditure of military assets.

-- To avoid destruction by anticipated NATO TNF employment.

-- To respond, minimally, to NATO nuclear escalation.

-- To assume escalation dominance following NATO first use.

-- To implement rigid war plans.

-- To fragment NATO.

Second, what might be the disincentives that could disincline the Soviet Union to have resort to theater-nuclear employment?

-- To avoid licensing NATO use of TNF.

-- To minimize the prospect of a very punishing NATO preemptive TNF strike.

-- To avoid the uncertainties and unknowns of theater nuclear warfare.

-- To economize on the loss of lives and equipment.

-- To avoid possible escalation to homeland-to-homeland nuclear employment.

-- To avoid intra-Warsaw Pact alliance strain.

-- To permit optimum efficient use of non-nuclear forces.

-- To avoid terrain/structures damage that could impede the pace of advance.

-- To preserve Western Europe as a prize or recovery base.

These summary concerns, some of them apparently contradictory (we say apparently because it is entirely possible that under some conditions nuclear use could hasten the speed of an advance--by blowing away NATO ATGW defenses--while in others it could impose severe delays [for example, if large tracts of urban-industrial West Germany were transformed into radioactive rubble, or if large forest fires were created in the path of advancing Soviet armored columns]). As so often in defense analysis, a particular argument, if not localized as to time, circumstances and preferred doctrine, can be deployed on either side of an issue--apparently with equal legitimacy. First, let us examine the list of identified "incentives."

To Solve a Military Problem

Unlike the U.S. civilian strategic theory community, the Soviets tend not to allow weapon considerations to drive strategy. Instead, strategy is driven by politics. Questions concerning the utility and control of nuclear weapons essentially drove the American limited war debate from 1956-63.[77] There has been no close Soviet analogue to that protracted American debate over strategic theory and practice.[78] In the context of this report, with its focus upon war in Europe, it is, as noted above, quite obviously the case that the Soviets would be prepared to employ nuclear weapons. If the Soviets have decided to go to war in order, forcibly, to detach West

Germany from NATO (and, therefore, really to destroy NATO), or to expel the United States from Europe and end theater-derived threats to the political-economic integrity of their "holdings" in Eastern Europe, one should anticipate, on the Soviet side at least, a fairly low threshold for nuclear employment. In terms of Soviet military science, war is war, with nuclear weapons comprising only the most destructive, though possibly decisive, element in the essential combined arms team.

This author suspects very strongly that the chain of command connecting ultimate political authority with a front commander, on the subject of nuclear readiness, nuclear release and firing orders, would operate far more expeditiously than is likely to be the case with NATO. As noted above, this is not because Soviet leaders would be in any way casual about nuclear use; rather is it because the Soviet political and military establishment appears to have accepted the nuclear weapon as an instrument of war, to be employed responsibly for military purposes (in pursuit of overarching political goals), in ways which Western defense communities find unpalatable.[79] Also, of course, the Soviets are able to take nuclear use decisions without the prior requirement for any consultation of a serious kind with their Warsaw Pact allies.

To Deny NATO the Benefits of the First Strike

Whatever doubts some Soviet defense planners may harbor concerning the controllability of a nuclear war, every shred of Soviet evidence known to this author indicates an overwhelming Soviet preference for striking first with nuclear weapons, rather than second.[80] If NATO were committed wholeheartedly to the task of stopping a Pact invasion of Western Europe, a short list of NATO TNF strike options presents itself for attention.

In retaliation, the Soviets could wreak terrible damage upon NATO-Europe, but promptly applied nuclear firepower by NATO should be able to halt a Pact invasion before it had properly begun.[81]

The Soviets read our literature and monitor our debates and posture, and they know that NATO does not have an agreed alliance-wide policy for the nuclear defense of Western Europe.[82] The Soviets are fortunate in that they only have to worry about NATO TNF strikes in the context of a confused battlefield situation several days (at least) into the course of a war. If NATO had a survivable TNF posture, both off-shore and deployed in Europe, married to a doctrine of near-immediate employment--to disrupt the aufmarsch of first, second, and third echelon forces[83]--the Soviets would have inordinate difficulty attempting to devise a plausible theory of victory for the European theater.[84]

The longer into a war the NATO nuclear initiative is delayed, the less the damage that the Soviets should anticipate would be caused by such a strike (NATO would have lost many of its nuclear delivery assets, and its nuclear-relevant C^3I could very easily be in a condition). A surprise NATO TNF strike very early in the war would be conducted by a NATO nuclear posture inadequately attrited, and against a Pact offensive that was both moving in accordance with pre-planned timetables, and massed to achieve and exploit initial breakthroughs. At this juncture, a large-scale NATO nuclear strike could have a paralyzing impact upon the Soviet ability to project military power in Europe.[85]

We do not know for certain how the Soviets assess NATO's theater-nuclear posture and doctrine, but it is at least possible that they misread it quite seriously--if only for reasons of prudence. For example, the Soviets have to be acutely aware of the survivability problem of the NATO

posture (both its weapons and its C^3I), just as they appear to be tolerably well satisfied--as indeed they should be--with the continuing (im)balance in non-nuclear forces. Soviet satisfaction with that (im)balance may easily be deduced from their negotiating stance in MBFR. So, the Soviets see a NATO with a conventional defense that should not hold; a NATO whose authoritative strategic concept of flexible response requires the alliance to have timely resort to theater-nuclear weapons in the hope of restoring deterrence; and a distinctly non-survivable theater-nuclear posture. These apparent facts should lead a Soviet defense planner to one inescapable conclusion: NATO intends to have very early resort to its theater-nuclear arsenal. (A more sophisticated Soviet planner might believe that the conventional balance, if road-tested in action, could provide some major [and unpleasant] surprises; that flexible response offers more comment upon the peacetime intra-alliance political needs of NATO, than it does guidance to operational intentions; and finally, that a substantially non-survivable NATO posture reflects nothing more than the inability of the alliance to decide that it should approach the problem of war in general, and theater-nuclear war in particular, very seriously. This last point could be very difficult for a Soviet professional soldier to grasp--no matter how familiar he was with Western debate.)

This second incentive, "to deny NATO the benefits of the first strike," is really a specialized case of the first incentive, "to solve a military problem." There is every reason to believe that the Soviets are fearful of the damage to their offensive that could be wrought by a series of well-timed and well-aimed NATO nuclear strikes. For example, a very prompt strike into Poland could cause major difficulties for those follow-on forces that were attempting to move rapidly from the U.S.S.R. into East/West Germany;

while the cohesion and shockpower of the first and second echelons could be attenuated severely were NATO to strike with theater-nuclear weapons prior to the completion of their initial breakthrough tasks (largely) by the Group of Soviet Forces in Germany (GSFG). Ergo, preemptive destruction of NATO's theater-nuclear delivery assets should prevent NATO from employing locally deployed nuclear weapons to solve or alleviate its emerging military problems.

The net benefits that NATO should expect to enjoy as a consequence of "going first" would, almost certainly, diminish very rapidly over time. Given NATO's acute problem of the lack of first-rate, and properly positioned, operational reserves (i.e., in the theater), a Soviet defense rationalist should anticipate that SACEUR would want to use nuclear weapons, not when he was truly desperately pressed, but when his C^3I was still functioning adequately, and when he had forces substantially unbloodied that could be employed to exploit the effects of the nuclear strikes. This hypothetical defense rationalist would very likely be wrong in his prognosis, because he would probably fail to appreciate the fact that some very important elements in NATO (and, in particular, the West German government) view nuclear weapons as being political rather than military instruments. Nonetheless, NATO has the kind of posture, nuclear and non-nuclear, which would incline a Soviet defense planner to anticipate early, rather than late, nuclear use.

To Economize on Time

There appears to be a genuine ambivalence, or uncertainty, in Soviet military thinking over the issue of war duration. Sensibly, the Soviet Union is preparing to fight both short and long wars. However, in the

context of conflict in Europe, the Soviet interest in waging as short a campaign as possible is reasonably clear. The essence of strategy, as observed already, is not the destruction of the enemy; rather is it the disruption of his plans, the fissioning of his order of battle, and the general unraveling of his military situation.[86] It is sensible to assume that should the Soviets decide to campaign Westwards, they would attempt to do so in such a way that NATO would never be able to recover its balance (on the ground) following the initial shock.[87] The Soviets could not be certain of achieving the degree of tactical surprise that they would like, but they can certainly maximize the prospect of such achievement through the device of attacking out of a large-scale maneuver situation (and, diplomatically, probably in the context of some major-sounding démarche over detente--perhaps in the form of a radical-appearing new MBFR proposal). This might be the functional equivalent of an attack from a standing start--in terms of the sensitivity of Western intelligence indicators.[88]

Ideally, in Soviet perspective, the initial blow, comprising both massive armored penetration and (above all else), a theater-wide assault on every important element of NATO's C^3I that could be identified and located, would unravel and unbalance the enemy faster than he could restore cohesion. This is the ideal. However, the Soviets had sufficient experience of evading and blocking deep armored thrusts in World War II to know that the "expanding torrent" and the "indirect approach" concepts that can paint a dazzling picture of what fast-moving forces can achieve,[89] rarely are achievable in practice--and are indeed unlikely in the face of the character of anti-armor weaponry possessed (and likely to be in place) by NATO. It is impossible to conceive of thoroughly professional Soviet defense planners assuming,

via a single-variant plan, that a Blitzkrieg victory would be achievable on schedule.

The Soviet interest in a high-speed campaign probably includes a mixture of military and political considerations. On the military side, as observed immediately above, since the attacker, by definition, begins with the initiative, a very rapid rate of advance may outrun the defender's required recovery time and, in the geographical context of NATO-Europe, may deny the defender the depth needed in order to organize and effect a recovery. Other military considerations include the morale of one's own, and the enemy's, troops (the sense of being invincible, being part of an irresistible tide, and so forth), and the probable lowering of casualty rates that should be the result of exposing men and equipment to enemy fire for, say, twelve rather than thirty days.

Political considerations favoring speed include the loyalty/resolution of allied governments and armed forces; the extent of NATO territory held should an early armistice seem to be advisable; the demoralization of the less robust in NATO-European capitals; and the desirability of attempting to outrun the anticipated NATO nuclear release/use decision process.[90] Canonical rates of advance for Soviet forces are one-third more in a nuclear environment than they are in a non-nuclear one. Through nuclear use, it should be possible to avoid the very time-consuming necessity of conducting a series of slow, grinding breakthrough operations. However, this has to be a net assessment. What kind of a nuclear response is the enemy both capable of making and likely to make? Because of Soviet anxieties about the flexibility (i.e., amount of competent initiative likely to be shown) of its armed forces in situations where pre-planned operations do not succeed,[91] at least in good part, we should anticipate a Soviet willingness to expend

nuclear ammunition for the purpose (inter alia) of maintaining, or restoring a tolerable rate of advance.

To Economize on Expenditure of Military Assets

As Hudson has explained elsewhere,[92] it is probable that the Soviets are nervous concerning the societal strains that a lengthy, and perhaps indecisive (in the sense that a clear military decision obviously was not obtained in short order) war might bring. Most, though by no means all, elements in Soviet society retained their adherence (loyalty might be too strong a term) to the Soviet state (though, more often than not, to the cause of Mother Russia) during the course of World War II, but that was in the context of the actual invasion of the homeland. If Soviet forces are hacked and mauled very badly, far from home in a cause whose merits are less than immediately obvious to the conscripted rank and file, then some of the more important strains in Soviet society could begin to make themselves felt in the quality of military performance, unrest in Eastern Europe, and perhaps even disturbances in the U.S.S.R. itself. These are not predictions, but they are consistent with the adverse (for the Soviet Union) military situation postulated.

A principal source of state power in the Soviet Union is the military establishment. If the Soviets believed there was a fair chance that they would have to expend a very large fraction of that asset in order to grind through NATO defenses in Europe, their political threshold for taking overt military action against NATO should be raised as a consequence. The speed of the Soviet offensive could be critical both for its prospect for success and for the cost in lives and equipment that would have to be borne. Soviet military science has determined that under nuclear conditions (following

an initial lay-down),[93] military formations should be able to advance 100 kms. in a 24-hour period: under non-nuclear conditions, the rate of advance should be 70 kms. in a 24 hour period. Even though the Soviets must anticipate taking serious losses in a NATO counterstrike, on balance, a nuclear lay-down that demoralizes, disrupts and destroys NATO's ability to organize timely resistance on the main axes of advance, could well lead directly to a Soviet theater-wide victory in a matter of days. It is entirely possible, if not probable, that the Soviets, mirror-imaging, are unduly respectful of NATO's theater-nuclear posture. It is possible that the Soviets might initiate nuclear use very early in a war because of <u>their perception</u> of the ways in which NATO <u>could</u> employ its TNF posture to wreak military damage. Similarly, elementary dispersal moves pertinent to the survivability of NATO's nuclear assets might trigger a Soviet preemptive nuclear strike by miscalculation. It is unclear whether or not it is beneficial for the Soviets to overestimate NATO's willingness to wage a nuclear land battle. If the Soviets overestimate NATO's seriousness about theater-nuclear (country-military) employment (which, almost certainly, is the case at present), NATO should enjoy a deterrent credibility which really it does not deserve--but which is useful--while it is possible, indeed probable, that Soviet overestimation of NATO's TNF intentions <u>and</u> capabilities could trigger an inappropriate Soviet preemptive nuclear strike on a large scale.

<u>To Avoid Destruction by Anticipated NATO TNF Employment</u>

A recurring problem in defense analysis is that each side tends to assume that the other will behave in a rational way according to its rules. Unlike the situation with respect to NATO, the Soviet theater-nuclear posture is not, primarily, a political instrument--intended to calm the fears

of exposed allies over questions of equivalency of risk, and to serve as a bridge, in enemy perceptions, to central-system employment.[94] Instead, as their military science and actual posture makes clear beyond reasonable doubt, Soviet theater-nuclear weapons are acquired for robustly military-professional putative war-fighting purposes.

The importance that the Soviets attach to theater-nuclear forces is well indicated in the contemporary, comprehensive, modernization (and augmentation) program, in the decisive role which Soviet military literature continues to assign to nuclear-missile weapons; and in the targeting attention which they claim to pay to NATO's theater-nuclear assets.[95] Given these facts, it is to be expected that the Soviets would anticipate NATO devoting very considerable resources to the attrition of their theater-nuclear posture, very early in the war. In a Soviet perspective which approaches the nuclear phase of the land battle very seriously, such attempted attrition by NATO would amount to little more than common sense. The Soviets would expect NATO to seek to draw down Soviet nuclear delivery vehicle holdings (FROG, Scud, and Scaleboard launchers, nuclear-capable SP artillery tubes, nuclear-capable strike aircraft, and perhaps even SS-20s and Tu-22Ms deployed in the European U.S.S.R.), and their C^3I both forward to the enemy targets and backwards up the chain of command. Soviet defense planners probably would not credit reports which denied that NATO planned a dedicated assault on its nuclear assets--true though such reports might be.

Almost certainly, the Soviets are unduly fearful of taking unacceptable damage to their theater-force posture (mirror-imaging their own theory of war) before that posture could intervene decisively in the battle. This concern, if apparently confirmed by a few events over the first few

days of war, could trigger a Soviet nuclear initiative (which, objectively, would not be preemptive--i.e., they need not be fearful of being surprised by a NATO nuclear strike), driven by the "use them or lose them" anxiety. There is an asymmetry between NATO and the Warsaw Pact with respect to the real military value placed upon theater nuclear forces. In case of actual conflict, this could mean that quite modest levels of attrition of Soviet theater-nuclear assets (achieved by non-nuclear means) would catalyze a Soviet nuclear strike, whereas massive attrition of NATO's nuclear order of battle might catalyze nothing in the realm of early nuclear employment.

To Respond, Minimally, to NATO Nuclear Escalation

It is possible that consideration of a mix of the disincentives specified above (and discussed in detail below) would persuade the Soviets to attempt to wage a non-nuclear campaign in Europe. Eschewing the mirror-image trap, the Soviets might reason that although a NATO nuclear initiative was likely, in the first instance it would probably be more symbolic than militarily damaging; and NATO would probably be so terrified (not to say politically fragmented) by the prospect of the Soviet response that, in the absence of any--or in the presence of only a minimally matching--Soviet reply in kind, NATO would lack the determination to escalate to a truly militarily punishing level of nuclear employment. Moreover, assuming that NATO would resort to nuclear employment only in a moment of acute military peril, the Soviets could well reason that their best interests would be served simply by continuing the conventional offensive and shrugging off what would be expected to be fairly light initial NATO use.

If the Soviets chose to ignore that first NATO nuclear strike, and to continue to deploy and advance their forces as for a non-nuclear conflict,

NATO's light initial nuclear blow--particularly if accompanied by a noteworthy degree of NATO-force dispersal (for a nuclear-scared environment)--might actually serve to accelerate the pace of an unfolding NATO disaster. The reasoning behind this tentative judgment is that (a) light and late NATO initial TNF use would, in and of itself, likely have only a very modest military impact upon a Soviet offensive (which, by definition--in the context of this argument--would have its forward elements very deep in NATO territory); (b) since it would probably have been applied in an experimental manner (following the worst tradition of post-war Western strategic thought), NATO governments would be unlikely to order a follow-up round of nuclear use of a more serious counter-military kind, pending near-unambiguous evidence that the Soviets had not been much impressed by the initial strike; (c) but, appreciation of Soviet self-restraint in not responding to that first NATO nuclear blow, set firmly in the context of a NATO-European understanding that the war was being lost, would induce in many NATO-Europeans the judgment that they would rather lose a "barely nuclear war"[96] (with only light and unilateral NATO use), than defend robustly in the context of heavy bilateral use.

This part of the discussion may appear to be bizarre to some readers, but its logic is not at all fanciful. If the Soviets are progressing sufficiently well in a non-nuclear mode that NATO is driven to desperation use of theater-nuclear weapons, it is possible that the Soviets would choose not to change the character of their campaign (at least near the FEBA), but might elect to respond with a purely political-symbolic strike on a minimal scale (say, taking out one or two small cities in Belgium or Holland or West Germany [depending on where the FEBA was at the decision time in question]). This would probably maximize intra-NATO divisions, would say

that "if you want a nuclear war we are willing to oblige you," yet would demonstrate such self-evident restraint that it could easily attenuate resolve on the NATO side. Any follow-up nuclear blows by NATO against one or two cities in Eastern Europe could be either dismissed and ignored by Soviet policymakers, or could be matched in kind--in either event, the Soviets would be determined to maintain the momentum of their invasion of NATO-Europe.

This discussion is probably unduly "Western" in its strategic cultural origins. Certainly, in Soviet perspective, it has to be judged to be counter-stylistic. Nonetheless, there is a certain compelling quality about its logic, in the scenario posed, which this author finds disturbing. The moral of this particular part of our tale is that if NATO decides to "go nuclear," it had better "go nuclear" in a serious military way for the purpose of effecting major favorable military results. If NATO's TNF employment is light, tentative, and political-symbolic, NATO is, de facto, inviting the Soviets either to ignore it, or simply to match it, all the while pressing on as before for theater victory.

To Assume Escalation Dominance Following NATO First Use

Several cases are subsumed under this "incentive." One case would be a situation where the Soviets were doing so well in a non-nuclear theater campaign that they determined not to precipitate a militarily complicating nuclear exchange--hoping either that NATO would fail to take the nuclear initiative, or that such an initiative would be taken too late to affect the course of the fighting. A second case would be one wherein the Soviets themselves felt no incentive to initiate nuclear use, but where they were confident that they would have adequate intelligence concerning a NATO nuclear initiative, and hence could strike preemptively. In this second case the

Soviet monitoring of NATO signal traffic and weapon movement and preparation could be deficient and they would then find themselves on the wrong end of a surprise TNF attack.

This "incentive," to capitalize upon the license granted by a NATO theater-nuclear initiative, is the reverse, in its essential reasoning, of the argument offered in support of the previous "incentive" ("to respond, minimally, to NATO nuclear escalation"). The kind of nuclear employment envisaged here is theater-wide, large-scale, though highly selective.[97] One can envisage a situation wherein NATO's nuclear initiative, either deliberately or inadvertently borne by the Soviet Union, functions as a green light to Soviet forces. The Soviet incentive to respond in a large way with theater-nuclear weapons comprises the following elements: the perceived necessity to deny NATO the possibility of a militarily substantive nuclear second strike; the opportunity to hasten victory in the theater by striking all target sets that can be struck most efficiently and definitively with nuclear weapons; and, finally, the attraction of seizing the commanding heights on a theater-relevant escalation ladder.

This "incentive," let it be noted, should only function actively as a mover of policy if the central strategic balance, in Soviet estimation, is in a condition of rough parity or better (for them). One of the several major attractions of a condition of (central) strategic superiority is that it (should) discipline enemy nerve in theater-conflict.[98] If the United States had a civil defense program as good as that of the Soviet Union, a modernized air defense system, and some area BMD, and had deployed a survivable MX ICBM force, Trident II SLBMs, the full B-1 complement plus ALCM assistance (which virtually could have been achieved for the mid-1980s--in other words, had the U.S. defense community behaved differently in the mid-

1970s vis-à-vis its extended deterrent duties), then the U.S.S.R. should not dare to attempt to outbid an initial NATO theater-nuclear employment move in the way specified here.

In the 1980s the Soviet Union may feel free to exercise almost any TNF general strike plan against NATO-Europe that it finds politically and, above all, militarily expedient, because the likelihood of such execution triggering a noteworthy response from U.S. central strategic forces will likely be judged by Moscow to be minimal (though not non-existent).

To Implement Rigid War Plans

It is possible, crude and unsophisticated though it may appear, that the Soviets essentially, have a SIOP-spasm-type war plan for their European-dedicated forces, and that theater nuclear weapons are scheduled to be employed in large quantities against military/logistic targets in the event of (a) a serious non-nuclear check to the pace of their advance, (b) the serious breath of a suspicion of NATO TNF employment, or (c) an actual NATO TNF attack of any size.

The rigidities of Soviet life and administration at home simply have to be reflected (and, we suspect, to an important degree) in the Soviet plan of campaign. It is possible that the Soviets would begin a theater war with a massive nuclear lay-down. This author does not endorse the strong likelihood of such a possibility, although he will admit that the wish may, to an unhealthy degree, be father to the non-endorsement. If the Soviets were to begin a European campaign with a theater-wide nuclear lay-down (on troop/equipment casernes, C^3I assets, airfields, ports, nuclear-weapon storage igloos, and so forth), there would be no theater campaign. NATO's ability to resist would be defunct on day one. The logic of this scenario is that

the Soviets would have to be ready to deter and fight a central nuclear war from the outset. In fact, if the Soviets concluded that they could destroy NATO's ability to resist in the theater by means of the initial nuclear lay-down, they would probably reason that the theater itself, the immediate "prize," might be bypassed--in that NATO Europe may fall into their hands if they could wage and win the central war first.[99]

Of course, the "rigid war plan" thesis could have some very different implications. Rigidity may require early, or late, or no, theater-nuclear emloyment. The value in specifying this particular "incentive" ("to implement rigid war plans") is to shake some Western defense planners out of the assumption of the policy relevance of a near-limitless pragmatism. In dealing with a Pact invasion of NATO-Europe in the 1980s, we should perhaps recall 1914 rather than 1940. A Soviet facsimile of Helmuth von Moltke may falter in implementation,[100] but NATO should not overestimate its ability to alter Soviet actions on a real-time basis.

To Fragment NATO

The Soviets have to be as aware as is any Western defense analyst that NATO would likely be even less of one official mind in the event of war than it is in time of peace or crisis.[101] No NATO-European government endorses a TNF war-fighting posture or doctrine. NATO-Europeans favor the idea of a seamless web of deterrence through the anticipation of escalating levels of punishment. The Soviets might well calculate that a very constrained nuclear demonstration, far from licensing and triggering a massive, and militarily embarrassing, NATO theater-nuclear response, could well catalyze fatal defections from the NATO camp. Would the West Germans, the Danes, the Dutch, or the Belgians "sign on" for a nuclear land battle waged on

their territory? The promise of nuclear use for pre-war deterrence is one thing; the actual nuclear defense of one's country is something else entirely.

The evidence suggesting a Soviet interest in public-morale destroying nuclear demonstration strikes is thin,[102] but it should not be discounted for reason of its incongruence with the general threat of explicit Soviet nuclear reasoning. NATO governments should be warned of the possibility that in the event of war the Soviet Union might deliver one or two terror strikes, intended to promote the political collapse of the opposing coalition. Again, this is not a prediction of Soviet behavior, but it is so obvious a tactic that NATO would be foolish to ignore the likelihood of its being suggested by the Soviet NUWEP community.

The nine incentives for Soviet nuclear employment discussed above need to be balanced by consideration of the nine disincentives discussed below, but--regardless of any net assessment made by a reader who has pondered the merits of both sets of arguments--it is difficult to resist the tentative conclusion that a NATO which declines to think through the postural and doctrinal (and societal-preparatory) requirements of theater-nuclear war, is a NATO which invites defeat. This is not to predict defeat: nothing is certain in war. But a non-serious approach to TNF issues (i.e., a non-survivable NATO nuclear posture, and the absence of an authoritative NATO theory for the proper conduct of the nuclear land battle) tempts fate to a greater degree than this author would endorse.

Let us now consider the disincentives for Soviet theater-nuclear use. Given the generally anti-TNF thrust of orthodox Western defense and arms-control thinking over the past twenty years, most of these arguments should be more familiar than were some of those developed above in support of the putative "incentive" contentions.

To Avoid Licensing NATO Use of TNF

The Soviets may suspect, if they attend with sufficient care and empathy to intra-NATO debates over theater-nuclear issues, that NATO would be politically incapable of initiating nuclear use. In other words, the Soviets might really be able to dictate the weapon character of the war. For all of their apparently genuine determination to preempt NATO nuclear employment, the Soviets can hardly monitor NATO's trials and tribulations over an issue such as enhanced radiation weapons and conclude other than that NATO addresses nuclear issues with extreme reluctance. The Soviets may believe, or perhaps suspect strongly, that NATO is very unlikely to employ nuclear weapons, regardless of its military plight--provided legitimization is not provided by Soviet nuclear action.

This disincentive is of course highly conditional--it would be much stronger were NATO to modernize its theater-nuclear posture and marry it to far more survivable C^3I. Also, the operation of this disincentive would have to be conditional upon a continuing success for the operation of Soviet non-nuclear arms. If the Soviets anticipate being able to (a) draw down NATO's TNF assets very markedly during the conventional phase of the war; (b) shrug off whatever damage residual NATO TNF assets might be able to inflict; and (c) deter or blunt United States' employment of its central strategic forces, then this disincentive may function scarcely at all in Soviet consideration.

To Minimize the Prospect of a Very Punishing NATO Preemptive TNF Strike

If both sides are in near hair-trigger preemptive readiness modes, "the reciprocal fear of surprise attack" could promote nuclear use through the misreading of signals. There should be two elements in Soviet thinking

on this issue. First, if the Soviets do intend to launch a theater-nuclear strike, they have to consider the possibility that NATO would detect the signatures of different kinds which characterize pre-launch preparation, and would attempt to launch a "spoiling" strike. Second, even if the Soviets do not intend to fire, they could trigger a NATO preemptive strike as a consequence of NATO misreading "normal" Soviet wartime readiness activity (dispersal of nuclear assets, etc.). Exactly how the Soviets would operate their theater-nuclear forces in the context of on-going conventional operations has to remain a matter for speculation. Barring human intelligence sources, our analysis of that issue has to rely upon Soviet practices in exercises, any clues we discern in the physical arrangements of their posture, and military common sense (in the light of what we think we understand about Soviet military style).

An obvious solution to the problem of denying NATO the ability to detect with high confidence TNF pre-launch signatures, is of course to build many of those signatures into the regular structure of the military situation. In other words, if the Soviets decided to marry nuclear warheads to weapon launchers in a period of acute crisis--which is really what their theater-nuclear employment policy requires to happen, on sound military grounds--the actual wartime process of ordering a nuclear strike should be less susceptible to NATO detection. Rightly or wrongly, but inevitably (given the Soviet perspective), the Soviets do appear to anticipate that NATO will pay heavy non-nuclear and nuclear targeting attention to their theater-nuclear assets. Non-dispersal of nuclear warheads from storage sites far ahead of intended nuclear employment is the kind of policy inaction one would expect of NATO, but not of the Soviet Union. Whereas a U.S. President would likely be concerned, above all else, to ensure the security of the

weapons, and to minimize the possibility of local military commanders taking the course of a war out of his hands; the Soviets would likely be concerned, above all else, to ensure that its theater-nuclear stockpile was not destroyed very early in a war (hence the case for dispersal out of storage sites). Both concerns are eminently reasonable and, in principle at least, both may be satisfied to some degree by PAL technology.

If the Soviets fear a very punishing NATO TNF preemptive strike--and there is some evidence to suggest that that is so[103]--they may believe, with some reason, that they can influence NATO's assessment of its incentives to fire. If the Soviets enter a war either in a high state of TNF readiness, or a relatively low state, the odds are that NATO will feel few nuclear preemptive urges. The danger of a NATO preemptive strike arises out of the readiness-transition process. A non-disguisable major change in the readiness state of key elements in the Soviet TNF posture would have to be judged by Soviet defense planners to be more dangerous, vis-à-vis NATO preemption, than would any enduring particular state of readiness. Even if they anticipated suffering considerable damage to their TNF posture as a consequence, the Soviets might decide that it is so important that NATO not be (or feel itself) licensed to launch a preemptive nuclear strike in the first couple of days of a war--when they could do most damage--that a less than satisfactory state of readiness for their TNF posture might constitute the lesser of two evils.[104]

To Avoid the Uncertainties and the Unknowns of Theater Nuclear Warfare

Notwithstanding the most careful study of bilateral nuclear employment issues, the Soviets cannot fail to be aware of the fact that they are acutely short of real-life, "hands-on," experience of such a form of combat. Whatever

predictability there is about a nuclear land battle, it is predictability only of a theoretical kind. In principle, nuclear use could solve many Soviet military problems, but what do the Soviets know, as opposed to believe, about nuclear warfare? The Soviet military, as well as the Soviet political, establishment is not led by reckless adventurers, any more than it is by wide-eyed true believers in the efficacy of one or another "wonder weapon." Soviet military science stresses the contribution of all arms to victory. In other words this is a cautious, thoroughly professional body that one should expect to be suspicious of the promise of untried instruments of war. Save in the propagandistic literature which waxes eloquent on the impossibility of containing nuclear warfare within (Western) intended limits, Soviet military writings tend to treat nuclear weapons simply as more powerful weapons. However, without making too much of this point, it is difficult to believe that the Soviets would not see a decision to initiate nuclear use as a transition from a familiar into an unfamiliar mode of warfare. (This difficulty may simply reflect the strategic culture of the author. One could argue that the non-nuclear weaponry on, and over, a European battlefield in the 1980s is sufficiently unfamiliar that profound historical study of the military history of the Great Patriotic War is as likely to mislead as to inform.)[105]

It is worth stressing the points that the Soviet Army has not seen combat on a large scale since 1945; that it has never fought in a nuclear environment; and that the Soviets cannot be at all certain that a nuclear war begun in Central Europe would not spread rapidly so as to engulf Soviet territory itself. This author is profoundly dissatisfied with the theme of "deterrence through uncertainty" which permeates NATO thinking, and would endorse Laurence Martin's contention that that uncertainty were phrased

more accurately as confusion.[106] However, there is some enduring merit in the uncertainty theme in NATO thinking, always provided that the uncertainty reposes healthily in Soviet minds and not in NATO planning. If NATO has addressed, and found a plausible answer to, the question "how would we fight a nuclear war," it is then at liberty to sow useful uncertainty for enhanced deterrent effect in the minds of Soviet leaders. An inescapable problem associated with "uncertainty" is that an adversary, confronting a range of possibilities, may resolve his uncertainty (admittedly illegitimately) by assuming the best, or at least the good, for his side. This author, from choice, would prefer that NATO not rest its deterrent aspirations on the putative working of the factor of uncertainty in Soviet minds. Instead, he would rather NATO adopt a declaratory stance akin to Maréchal Petain's slogan at Verdun in 1916: "Ils ne passeront pas." (They shall not pass.) For optimum deterrent effect, NATO should commit itself to the defeat of any Pact invasion. This commitment need (and indeed should) not entail any precise delineation of how the defeat would be accomplished (i.e., we could have uncertainty as to the means, but a healthy certainty as to our proximate military goal, so we may build forces accordingly). This commitment should also take advantage of the known factors of nuclear weapon use (e.g., the fact that fallout from weapons used by either side will drift across Warsaw Pact territory because of the prevailing westerly winds in Europe).

To Economize on the Loss of Lives and Equipment

No one knows just how destructive a theater-nuclear war would be. Particularly in the very early stages of a war in Europe, the Soviets may fear that a nuclear initiative on their part would result in a massive

response by NATO, using offshore as well as surviving locally-deployed TNF, which effectively would destroy the value of their second- and third-echelon forces before they had been patched into the FEBA. The human and material cost dimension to the nuclear-use decision can be argued either way. It is quite possible that the Soviets would expect to suffer fewer casualties in a nuclear, than a non-nuclear, environment. Clearly they would suffer very badly were Pershing, Lance, et al., to strike major troop concentrations, but it should not be forgotten that the Soviets appear to expect to initiate nuclear use, or to respond to NATO nuclear use in a context where NATO's TNF posture already has suffered massive attrition by Soviet conventional means. Ideally, in the Soviet military scheme of things, the NATO nuclear response is ragged and ineffective, whereas the initial Soviet nuclear lay-down permits their infantry (buttoned down in BMP AFVs) to keep company with the tanks in a race into the deep NATO rear.

This author is not convinced that the Soviets do expect to take heavier casualties, overall, in a nuclear as opposed to a non-nuclear campaign. This is a possible disincentive which can be characterized in the abstract, but not in detail. If the Soviets had to "brawl"[107] their way through densely deployed NATO anti-tank defenses, and fight off NATO's armored flank counter-attacks (in the context of an air environment wherein NATO's Tacair was still very much in evidence), the non-nuclear environment could precipitate a crisis in (in)tolerable losses.

The strength, or otherwise, of this candidate disincentive clearly is a function both of the character of NATO's TNF posture and doctrine, and of the quality of Soviet tactical skills.

To Avoid Possible Escalation to Homeland-to-Homeland Nuclear Employment

The political-propaganda stance of the U.S.S.R. is that nuclear war is nuclear war. Just possibly, this view may reflect more than an external manipulation purpose--it may reflect genuine domestic belief. The Soviets may be confident that they could conduct a nuclear war in Europe according to military scientific principles, but they may be less confident that the bourgeois military establishment of NATO would be so rational. Indeed, the Soviets themselves have guaranteed the military logic of linkage between a Central European battlefield and their homeland by the deployment of deep strike assets "at home." Retention in the U.S.S.R. itself of SS-20 IRBM's, Backfire and Fencer aircraft, all of which would have major relevance to a conflict in Europe may be explained in strategic terms, or with reference to security considerations (Soviet nuclear-capable artillery is not deployed beyond the Soviet frontier in peacetime). On strictly military grounds the Soviets have no need to deploy the SS-20 forward. However, intervention by SS-20s (inter alia) in a European war clearly could be taken by NATO as a license to strike directly at Soviet territory.[108]

It is entirely possible, and certainly is consistent with the evidence, that Soviet leaders (political and military professional) do not believe in the likelihood of nuclear conflict being contained within modest dimensions. Furthermore, there is more than an outside chance that Soviet military planning vis-à-vis theater-nuclear employment options would function to a self-fulfilling effect with regard to the large nuclear war thesis. Academicians in and around NATO defense establishments design computerized exchange models that, more often than not, are relatively bloodless. But, a Soviet defense community planning to take out NATO's nuclear storage igloos, Tacair main operating bases, logistic choke points, etc., may reason--with

good reason--that West European civilians by the tens of millions would be killed fairly promptly, and the U.S.S.R. cannot assume that NATO or U.S. determination would fold instantly. In short, the Soviet Government would be prudent to assume that the NATO/U.S. response to a militarily sensible Soviet nuclear lay-down in the theater would include a substantial strike embracing Soviet territory.

The author, in common with other Western defense analysts, admits to the existence of a very severe evidence problem on this subject. Perhaps the beginning of wisdom is the frank admission of ignorance. We do not know whether, or the extent to which, concern to avoid (they cannot prevent--given the theoretical availability of U.S., French and British "central" nuclear systems) nuclear strikes against the Soviet homeland, has had a noteworthy influence over Soviet nuclear planning vis-à-vis a war in Europe. All too often, the prognoses by NATO analysts reflect local hopes, fears and reasoning, rather than a plausible portrait of probable Soviet behavior. As a general rule, it is prudent to assume that an enemy's society, and political system, is more robust than the ambiguous evidence would suggest to be the case.

It is possible that nuclear strikes on a small scale against carefully selected target sets inside the U.S.S.R. would unlock domestic national-ethnic-political forces which would unravel that country (this probably merits categorization as "the Hackett Fallacy").[109] However, it is far more likely that the U.S.S.R. could absorb the damage resulting from geographically extended nuclear war in Europe, and suffer no central political authority damage worth mentioning.[110]

Speculation aside, it can scarcely be doubted that (a) Soviet leaders would prefer to avoid nuclear use against Soviet territory; and that (b)

any nuclear war in Europe would have to carry very grave risks of expansion so as to include Soviet-homeland located targets. In principle, as Paul Bracken of Hudson Institute has argued, the Soviets should wield their theater-nuclear threat, and actually employ their TNF assets, so as to maximize the prospect of alliance defection under (or fearing) fire.[111] So unsuitable is NATO-Europe as the world's first nuclear battleground, that the first very serious whiff of nuclear grapeshot should promote timely reassessment of the national interest in many NATO capitals. This perspective upon the degree of resolve to be expected of the U.S.' NATO-European allies may, or may not, be soundly based. However, there can be no doubt but that the Soviets would have very little to lose, and everything to gain, by taking the Bracken prognosis seriously.

In practice, Soviet military style is unlikely to accommodate the political sophistication required for the NATO fissioning strike(s). Early, light, counter-(NATO) political cohesion strikes could possibly have noticeable negative military consequences. It is "the Soviet way" to control the action of foreign governments, not to seek to persuade them to behave differently.

It is encouraging to reflect upon the Soviet political campaign launched in the Fall of 1979 intended to dissuade NATO-Europe from permitting deployment of nuclear launch vehicles capable of striking Soviet territory. Even discounting the escalation of Soviet rhetoric,[112] it would seem that, for deterrent purposes, extraordinary leverage may be acquired as a consequence of the local NATO-European deployment of Pershing II and the GLCM. Whether or not these deep-strike systems meet NATO military planning requirements,[113] the Soviets have told us, as clearly as could be, that they find these systems to be exceptionally offensive. To be rather more cynical, it is of course

just possible that the current Soviet political campaign against deployment of these systems reflects nothing more substantial than Soviet reading of the fragility of intra-NATO negotiated strategy.

To Avoid Intra-Warsaw Pact Alliance Strain

NATO may be certain that the Soviet Union harbors no excessively optimistic view of the loyalty of its Pact allies: they are "allies" of necessity, of convenience, and of circumstance. With the probable, though somewhat unimportant, exception of Bulgaria, Soviet "allies" in Eastern Europe are strictly allies-by-duress. As a matter of prudent calculation of self-interest, Poland, Czechoslovakia, Hungary, East Germany (very much a special case), and Rumania (a country embracing enormous regional-ethnic diversity--yet attaining a national consensus on one matter above all others, hatred of the Russians)[114] are Pact allies faute de mieux. In principle at least, the serious prospect of a nuclear conflict in Europe raises the possibility, perhaps in Soviet minds, of NATO being able to change the values in the prudent calculations made in Warsaw, Potsdam, Budapest, Bucharest, and Sofia. By way of declining to initiate nuclear use, and by encouraging NATO similarly to be restrained, the Soviets might hope to (a) deny NATO the option of offering Poland, et al., total nuclear targeting "withholds," in return for non-cooperation with, or even active resistance to, Soviet forces; and (b) prevent the maturing of a politico-military context wherein the Polish Government is motivated to initiate an approach to NATO suggesting that some quid pro quo be agreed.

It is sensible for NATO analysts to be skeptical concerning the vulnerability of the Warsaw Pact to early intra-war political fission, but it is no less sensible for NATO analysts to appreciate the kind of leverage

that might be exercised. Overall, Polish (et al.) official behavior is likely to be driven by local assessment of the probable future tide of battle. In other words, if the Poles believe that the U.S.S.R. is about to win a war in Europe, NATO effectively has no leverage over Warsaw (of course, this implicitly assumes a valid base of information for comparison). NATO/U.S. leverage vis-à-vis non-Soviet Pact capitals appears in the context of military uncertainty. If the Pact-allies believe that no matter what they do the Soviets win the theater war, then they have no prudent alternative other than to following Moscow's directives.

NATO planners are placed in an unenviable dilemma. The better Pact-allied divisions have to be included in the first echelon of a Soviet assault with minimum warning (say, four days). At the outset of the war, a very brief period which could well determine its outcome, NATO has to assume a uniform hostility on the part of all (almost--exclude Rumania) members of the Warsaw Pact: to do otherwise would be to invite defeat. At the outset of the war NATO has to attempt both to blunt the shock power of the Pact's first echelon, and to interdict the aufmarsch of the Pact's second echelon (in Eastern Europe) and other follow-on forces (in the European U.S.S.R.). So, on military grounds, NATO is driven to treat all of Pact territory within a common framework--though, paradoxically, fears of precipitate escalation might persuade NATO authorities to spare Soviet territory, at least initially. Potentially, one of NATO's stronger cards is the possibility of Pact-allied defection from the Soviet cause on a massive scale. Yet the military dynamics of the early war situation would enable NATO to offer little incentive to defect. It seems probable that NATO would desire so strongly to slow the pace of Soviet reinforcement of the Central Front, that politically interesting national targeting "withholds" (vis-à-vis Poland,

say) could prove to be extremely expensive. Ideally, one would like to be able to afford to offer Poland a nuclear sanctuary status in return for Polish non-cooperation in a Soviet offensive.

However, in practice, Poland would be likely to respond positively to such an offer only if its government were convinced that the Soviet Union would lose the war. If that is correct, it points to the impracticability of NATO fine-tuning its nuclear targeting in the theater in the hope of political gain. NATO would need Polish assistance (embracing a range of activity and inactivity) at the outset of a war, not when the tide of battle clearly had moved in NATO's favor. If Poland (for example) wished to contribute, possibly decisively, to Soviet defeat, it would have to remove its forces from the Pact's first and second echelon, and hinder actively the transit of Soviet third echelon armies. Since the Poles could not prudently take such extreme action very early in a conflict, NATO and the U.S. should reconsider the collateral damage constraints which are hampering greatly their ability to design militarily intelligent targeting plans *vis-à-vis* Soviet projection forces.

The above analysis should be correct, but one cannot reasonably expect Soviet defense planners to duplicate pessimistic NATO-oriented thinking (strategic conceptual ethnocentricity is not solely a Western disease). In Soviet perspective, although they are running a command-style alliance, their Pact allies would be known to have a very strong interest in removing themselves from NATO's nuclear targeting lists. The Soviets may be confident that they could compel obedience (at least for long enough), but there probably remains a nagging doubt. Poles, *et al.*, would know that the threat of Soviet-authored punishment in response to defection under, or under the threat of, NATO fire would not be an idle one. However, an incipient, or

actual nuclear environment might well change the values in Polish, and other, calculation.

Soviet planners should worry about two aspects of the possible nuclear connection to the integrity of their alliance.[115] First, in principle, the threat of nuclear use, and the promise of a nuclear sanctuary, might just provide NATO with some leverage over East European governments. A strong argument to this effect is very difficult to devise, but it is unlikely that Soviet officials would ignore it totally. Second, Soviet planners should be concerned lest a nuclear war in Europe produce a general chaos rather than swift victory. If the rigid scholarly formalism analyzed and dissected by Norman Friedman[116] does not close Soviet military minds to the possibility (and this, alas, is not a "researchable" subject), Soviet defense planners should be attentive to the possibility, and some would assert strong possibility, that cohesion would be lost both within and between armies (and their directing governments) in a nuclear environment. Prompt and delayed radiation damage, applied or in prospect, could have traumatic effects upon previously loyal, or at the least reluctantly obedient, soldiers. Given that Polish, Czech, and East German soldiers very likely would be waging a war that bore no identifiable relationship to Polish, Czech, or East German interests, the extreme stress of nuclear conflict should function with particular virulence in the ranks of soldiers of those states.

Soviet military science, with its "school solutions" very carefully provided by a scientifically minded general staff, would have no formal truck with the suggestions in the previous paragraph. Nonetheless, there may be some Soviet politicians and military planners who are not totally trapped in an imagination numbing tunnel vision engendered by over-exposure to the confident tenets of Soviet military science.

To Permit Optimum Efficient Use of Non-Nuclear Forces

It is possible, indeed probable, that Soviet military analyses of nuclear war in Europe are as lacking in reality as tends to be the case in NATO defense communities. Virtually every respected defense analyst in the West today is "on board" for the view that the Soviets would prefer to wage non-nuclear, rather than nucler war (at least, initially), and that to the extent to which Soviet defense planners are accorded the initiative at the opening of hostilities, the first phase, at least, would not see Soviet nuclear employment. As Norman Friedman has argued at length, the Soviets would effect the transition to nuclear weapon employment almost wholly in a preemptive vein (i.e., the Soviets would "go first in the last resort"; they would not choose nuclear combat).[117]

The above view may be correct, but it is distinctly lacking in authoritative support. The Soviets, by way of postural development over the past decade, certainly have acquired the ability to wage an intense non-nuclear campaign. Also, Soviet exercise activity unequivocally signals some considerable flexibility of approach to the issue of conventional and nuclear phases to a conflict. In short, there is very good reason indeed to believe that the Soviets anticipate the opportunity to wage a non-nuclear campaign for a period ranging from several days to several weeks, and then to effect an orderly transition to theater-nuclear combat. This author is somewhat disturbed both by the indirect character of the evidence available concerning Soviet intentions vis-à-vis nuclear employment, and by the overwhelmingly self-serving elements in now-dominant NATO assessments of the Soviet theater-nuclear threat. As Part I of this report suggests, there is some evidence to the effect that Soviet exercise organizers assume a (for them) rather cooperative NATO adversary--but what of the converse of this point,

that NATO's exercise designers tend not to assume an enemy who really "does his worst?"

To be less than totally fanciful, what if the Soviets opened a theater campaign with a very heavy nuclear lay-down? How many of SACeur's military assets are there remaining to exercise? Also, to follow Paul Bracken, how well does NATO fare as a cohesive alliance if the Soviets employ TNF for the purpose of fragmenting the enemy coalition?[118] There are good reasons to believe that the Soviets, as a general rule, would prefer to allow their non-nuclear combined-arms assets to function bereft of immediate nuclear anxieties. Notwithstanding theoretical calculations which can show that ground forces advance far more rapidly in a nuclear environment, the uncertainties (and plain "unknowns") of nuclear warfare should give pause even to otherwise-confident Soviet colonels. No matter how carefully Soviet military professionals have "staffed" the probable operational problems of nuclear warfare, the inescapable fact remains that there is no historical data on this subject. For example, Soviet staff officers do not know how a combat unit will behave when it has been subjected to a radiation attack that leaves most of its members still functioning, but apprehensive as to the dosage to which they have been exposed, etc.[119]

Even though Soviet military science appears to endorse a unified view of war, nuclear and non-nuclear, it is difficult to believe that the Soviet military profession (quite aside from superordinate political constraints) would not prefer to cope solely with the problems posed by non-nuclear combat. Apart from this asserted preference, one has to admit that the Soviet Armed Forces appear to be so rigorously prepared for chemical and nuclear conflict that they would find it close to impossible to operate very efficiently in a non-nuclear environment. The U.S.S.R. would have to be ready,

at very short notice, to anticipate a NATO decision to initiate nuclear-weapon employment, and many Pact strike assets would need to be withheld from conventional operations in readiness for execution of nuclear operations.

With respect to this potential "disincentive," as so often in this report, there are critical missing elements in the evidence inventory. For example, in this particular context, just how fearful are the Soviets concerning the military effect of early NATO nuclear strikes? Known Soviet devotion to the tactic of nuclear preemption may say more about Soviet obeisance to the "principle of war" generally termed "the initiative," than it does about real Soviet anxieties over the disruptive effect of firing nuclear weapons second.

To Avoid Terrain/Structure Damage that Could Impede the Pace of Advance

The Soviets have to assume that a nuclear war in Europe would be a two (plus)-party affair. They may be tolerably confident of their ability so to plan and execute nuclear strikes that the pace of the armored advance would be hastened as a consequence, rather than slowed. In addition, the Soviets may believe that NATO would not choose to execute nuclear strikes against its own territory of such a kind that very serious barriers to a Soviet advance would be created. Looking at a map of West Germany and the Low Countries, any Soviet planner is likely to be impressed by the very strong probability that if and when Pact forces are able to break through NATO's main line of resistance (which is well forward), fighting would increasingly occur in or very close to major urban-industrial centers and to dense columns of civilian refugees. In North-Central West Germany and Holland, Pact forces would be unable to avoid penetrating major urban-industrial

regions, even if they so wished. Soviet tactical doctrine does, of course, prescribe the by-passing of large urban areas--in fact, at the level of military dogma, neither side plans to fight in cities. However, the same was true for the Red Army and the Wehrmacht in 1941; yet, despite the vast areas nominally available for untrammelled maneuver (save for snow, mud, forest, marsh, partisan activity, etc.) on the Eastern Front, most of the land-mark, and more telling, battles/campaigns entailed the attack and defense of urban areas (Leningrad, Odessa, Sevastapol, Kharkov [several times], Moscow, Stalingrad, Königsberg, etc.).

Unfortunately, the urban-industrial sprawl of West Germany and Holland should not be thought of as a potential super-Stalingrad for Pact forces. For understandable reasons, the governments of NATO-Europe have, to date, evinced no interest whatsoever in preparing some of their major urban centers as potential fortresses intended either to be defended house by house, or block by block, or to be so forbidding a military prospect that they would canalize Pact forces around them into open-ground killing zones.[120] Soviet military planners should reason that NATO would be as reluctant to strike at, or ahead of, Pact forces that "hugged" urban areas, as it would at Pact forces which cynically employed West German civilian refugees as a shield. (The Soviets, in World War II, occasionally used <u>their own</u> civilians as cover, so one should not expect them to be overly squeamish <u>vis-à-vis</u> West Germans.) When considering the likely "style" of Soviet warfare in Central Europe, it would be imprudent to neglect the historically (long-) bequeathed quality of virulent antagonism that characterizes Russo-German relations (compared with which "the spirit of Rapallo" and Brandt-Schmidt <u>Ostpolitik</u> are but snowballs heading towards a fire). For reasons of escalation control, should such a concept penetrate Soviet military planning

(which is less than certain), Soviet military practice on West German territory might be constrained "writ large." But, "in the small," at the person-to-person level, Soviet soldiers are likely to view dead or sick and irradiated German civilians as a "bonus," not "unwanted collateral" damage. This ethnic-national-historical antipathy would, of course, carry some potentially burdensome negatives. For leading examples, East German soldiers might decide that they were more German than Pact planning easily could accommodate, and the probable individual ferocity of Soviet military behavior in West Germany could catalyze a matching ferocity in resistance.

The Soviet General Staff, notwithstanding the encouraging low-morale messages that it cannot help but monitor from the liberal-minded elite in West Germany, scarcely needs reminding concerning the martial qualities of Germans. Hitler's Germany did not collapse militarily: it fought all the way back to the Reich Chancellory. It is almost certainly the case that Soviet military planners are far more respectful of German military determination and patriotism, courtesy of a fairly recent historical memory, than is the vast majority of American defense analysts. Perhaps irrationally, it is likely--though far from certain--that the U.S.S.R. overestimates the willingness of (literally) front-line NATO countries to resist à l'outrance. Close observers of the peacetime politics of NATO countries can identify very persuasive Soviet tactics relating to nuclear threat or employment which should panic those countries into preemptive surrender. However, it is exceedingly improbable that prudent Soviet defense planners would endorse such schemes.[121]

Soviet leaders and planners may both overestimate the willingness of Bonn to endorse a scorched (and irradiated) earth policy, and assume a ruthlessness on the part of the United States that is unrealistic. In short,

rational American strategic thinkers may assert that the Soviets should not be unduly impressed by the nuclear-weapon created barriers to rapid ground-force advance that NATO could erect, but the Soviets may read us differently. At the rather simple-minded level at which it is frequently treated, the genuineness of a Soviet desire to avoid creating, or precipitating (on the part of NATO), pace-of-advance attenuating obstacles, is beyond question. The more interesting issue is how Soviet leaders and military planners assess the willingness of NATO countries to accept such self-mutilation.

To Preserve Western Europe as a Prize or Recovery Base

Logically, this disincentive has to be discussed, but there are reasons for treating it with some reserve. In practice, Western Europe--in a wide range of possible physical conditions after a theater war--could well be a prize to be exploited and used as a recovery base for a Soviet Union that would have suffered some damage to its homeland. However, one should beware of making too much of this argument--for, when examined closely, it effects a reversal of probable Soviet priorities. Soviet need for a Western European recovery base would be a function of how well it had fared in a war. One should not expect the Soviets to pay any noteworthy operational military price (bearing upon their prospect of achieving prompt military success) in anticipation of securing a relatively undamaged base to be exploited for recovery. The winning of the war, prudently, would have to be the first consideration.

Also, one should be careful of claims to the effect that nuclear operations in Europe might be disciplined by a Soviet determination to preserve the prize of Europe's economic assets. A Soviet Union striking Westwards

should not be equated to the romantic adventurism of the Third Reich's bid for lebensraum in the East. It is unlikely in the extreme that the Soviet Union would choose to go to war in order to acquire control over the manifold assets of Western Europe. It is true that in the event of a theater war in Europe, the issue of the physical condition of the prize might be present in some Soviet minds, but the probable (almost certain) fact that the Soviets would not be fighting, with acquisition of the prize of Western Europe assets as the dominant political motive, virtually destroys the merit of this "disincentive."

One may assert with some confidence that the Soviets would not inflict needless economic damage upon Western Europe, but--with no less certainty--one must assert that the Soviets should not be expected to risk compromising their prospects for swift military success, in the interest of preserving Western Europe as a prize or a recovery base.

2.6 Conclusions

The above discussion of nine "incentives" and nine "disincentives" for Soviet initiation of theater-nuclear force employment might be deemed academic (pejorative use) by responsible officials. Such a reaction would be unfortunate and, we believe, inappropriate. If a simple and demonstrably correct answer were attainable vis-à-vis Soviet incentives/disincentives to initiate nuclear use, that answer would have been provided by the transnational NATO defense community many years ago.

Part 1 of this report, by Norman Friedman, is really a special, and overwhelmingly important, case of the subject matter of Part 2. In this report, Hudson has chosen not to rest its line of argument on a restrictingly narrow, though rigorously analyzed, evidential base. In short, we do not

believe that there is a simple "key" to Soviet nuclear-employment intentions. We believe that it is very useful to study Soviet/Pact peacetime exercises, postural evolution, and military literature. However, we believe, very strongly, that Russian/Soviet history--and *their* likely interpretation of that history--and politico-strategic "culture," can tell us more about probable future Soviet military behavior than can any careful analysis of Pact exercises or military doctrinal texts.

Much of what is identified as "the Soviet way" with respect to TNF employment would be misinterpreted were it to be attributed to a *uniquely* Soviet strategic culture. Quite resolutely, the Soviets continue to approach war in an operational perspective--"how should it be waged for maximum military efficiency?" There are many reasons why we believe that the Soviets *should* want to initiate a war in a non-nuclear manner, thereby, in principle, opening the door to transition problems. But, Soviet evidence is far from conclusive on the subject of the existence, and character, of transition issues. A conventional opening phase of a theater war is only one variant of war-waging possibilities. Many Western analysts may *believe* that the variant dominates Soviet planning, and they may well be correct, but there is no real authority underlying that belief. Although the evidence, such as it is, is rich and ambiguous, which could promote the view that the Soviets are very pragmatic in their planning for theater war, we incline to the view that the Soviets probably do have a single dominant scenario in mind *vis-à-vis* TNF employment.[122]

Soviet military science and, by Western standards, the heavily academic character of Soviet professional military higher education,[123] have a problem-solving proclivity which inclines towards the finding of a "school solution" to anticipated military problems. In the Soviet context, the role of TNF

in a war in the Central European TVD simply has to be categorized as a military problem of the utmost importance that begs for a scientifically "correct" analysis. The heavily mathematical formalism of Soviet military analysis does not preclude what could be termed a pragmatic approach. In other words, the Soviets might analyze "scientifically," long ahead of time, the proper role of TNF, or--no less persuasively--they might choose to subject possible TNF use decisions to (intra-war) real-time scientific analysis. The Soviet general staff, with its well-advertised enthusiasm for computerized algorithm application--comprising high-speed mathematical substitutes for qualitative human analysis--offers some disturbing analogies with the kriegspiele played by the Great General Staff of Imperial Germany: military planning is approached as a set of problems in applied mathematics.[124] The potential for real-time rude awakening is awesome--on both sides. The Soviets may discover that "the fog of battle" starves their computers of vital information; while NATO may discover that, in practice as in peacetime exercise, the Soviets will apply decision rules on nuclear use on the basis of mathematical analysis of the net cost and advantage. NATO strategists cannot help but have extreme difficulty comprehending an adversary who appears to be willing to initiate nuclear employment on the basis of mathematical analysis.[125] The root problem is one of strategic culture. For more than twenty years, Western defense communities have asserted and argued that "nuclear weapons are different"--they cannot be analyzed solely in the framework of quantifiably appropriate military solutions to military problems. Given the rival, and distinctive, premises, both Soviet and Western perspectives are "correct." What has yet to be considered very carefully, probably by the defense communities

on both sides of the line, is what is likely to happen if and when two very different approaches to TNF employment clash in real-time action.

It may transpire, in practice, that the "scientific" scholasticism that is so notable a feature of Soviet military analysis would be an early victim of political reality. In short, in the event of war the Politburo might instruct its Soviet establishment to retire its favored algorithms for the duration, and to await clear qualitative political instruction on the detail of nuclear use. However, this speculation may reflect no more than Western-oriented wishful thinking on the part of the author.

By any reasonable person's interpretation of the rules of evidence, Soviet intentions vis-à-vis theater-nuclear employment may be stated with some confidence. We can claim that the Soviets intend:

1. To be the first to use nuclear weapons.

2. To anticipate NATO TNF employment in such a fashion that the concept of a "preemptive nuclear transition" does some violence to the integrity of the usual Western concept of preemption.

3. To use TNF as and when military circumstance suggests to be most appropriate.

4. To employ TNF in a decisive manner (i.e., they will not make "bargaining" strikes; seek to influence NATO-European political opinion; or play deliberately dangerous escalation games).

5. To strike with as much, and as little, nuclear fire as they need for strictly interpreted military purposes. (Soviet military science is very attentive to the application of what, traditionally, has been known as the principle of economy of force.)[126] The sine qua non of Soviet policy will be the achievement of unambiguous military victory in the theater. The Soviets will not imperil attainment of that superordinate objective by restraining TNF employment on the basis of applying algorithms that bear upon escalation-control (indeed, it is not at all certain that such algorithms exist in the Soviet culture).

For reasons of military prudence, NATO should plan as though the above were revealed truth. On balance, we think that the clear evidence, summarized above, should be taken at face value. But, we retain the nagging suspicion that, in the event of war, Soviet military science would be restrained in application by high-level political appreciation of the potential force of some of the "disincentives" identified and discussed above.

NATO's TNF posture and doctrine are so heavily influenced by local considerations that relate scarcely at all to analysis of "the Soviet threat," that it is, perhaps, optimistic to have a Part III to this report which addresses "The Problems for NATO." On the basis of the evidence to hand, there can be no doubt as to the character of a NATO combined arms posture and doctrine which would be optimal for the deterrence even of desperate Soviet leaders. Ideally, NATO would confront Soviet political and military planners with an undeniably serious prospect of military defeat at every potential level of combat. Soviet-perceived disincentives to initiate TNF employment would be strengthened by NATO provision of a triad of force types which would function synergistically for the unraveling of Soviet theater offensive, and if need be, for the plausible potential unraveling of the Soviet Empire itself.

PART 2 END NOTES

1. See Dictionary of Basic Military Terms (A Soviet View) (Moscow: 1965), Soviet Military Thought Series No. 9 (Washington, D.C.: U.S. Government Printing Office, 1977), p. 37.

2. In "Strategic 'Doctrine' and SALT: Soviet and American Views," Survival, Vol. XXI, No. 1 (January/February 1979), pp. 8-13.

3. Dictionary of Basic Military Terms (A Soviet View), p. 38; and Harriet and William F. Scott, The Armed Forces of the U.S.S.R. (Boulder, Colo.: Westview, 1979), Chapter 3.

4. "The Development of Nuclear Strategy," International Security, Vol. 2, No. 4 (Spring 1978), p. 66.

5. Some recommendations for NATO posture and doctrine are presented in Part III of this report.

6. A landmark early statement of the anti-nuclear thesis was James King, "Nuclear Plenty and Limited War," Foreign Affairs, Vol. 35, No. 2 (January 1957), pp. 338-56.

7. See Ken Booth, Strategy and Ethnocentrism (London: Croom, Helm, 1979).

8. This judgment, admittedly, is controversial. However, it rests upon a great deal of previous research conducted by this author for the U.S. Government. See, for example, Colin S. Gray, Defending NATO-Europe: Forward Defense and Nuclear Strategy, DNA 4567F (Washington, D.C.: Defense Nuclear Agency, November 1977).

9. Notwithstanding the different premises which undergird the strategies of the two sides, and the fact that those strategies are designed to accomplish very distinctively different ends, a comparative assessment on this subject could be offered.

10. Military "style" is the product of unique historical experiences and is responsive to unique contemporary political requirements. NATO's likely operational "style" would be the negotiated product of hard bargaining among genuinely independent alliance members.

11. See Fritz Ermarth, "Contrasts in American and Soviet Strategic Thought," International Security, Vol. 3, No. 2 (Fall 1978), pp. 138-55; and Benjamin S. Lambeth, How To Think About Soviet Military Doctrine, P-5939 (Santa Monica, Cal.: RAND, February 1978).

12. General-Major S.N. Kozlov, The Officer's Handbook (A Soviet View) (Moscow: 1971), Soviet Military Thought Series No. 13 (Washington, D.C.: U.S. Government Printing Office, 1977), p. 65.

13. Prominent West Germans cannot state this fact openly, lest it offend American officials, and invite a lack of Soviet war-fighting respect.

14. (Cambridge, Mass.: Harvard University Press, 1960.)

15. (New Haven, Conn.: Yale University Press, 1966.)

16. Carl von Clausewitz, On War, ed. and trans. by Michael Howard and Peter Paret (Princeton, N.J.: Princeton University Press, 1976, first publ. 1832), p. 605.

17. See Frank Armbruster et al., Scenarios for Military Balance Analyses, Vol. II: Priority One Scenarios, HI-2785-RR (Croton-on-Hudson: Hudson Institute, March 1978), pp. 51-152.

18. The real "readiness" of Soviet (and Pact-allied) forces continues to be a debatable subject. This author has no quarrel with the assumptions of M.F. Barnett et al., Science Applications Inc., Current Theater Force Capability to Counter a Minimum Warning Attack (unpublished).

19. War and Politics (New York: Macmillan, 1973), p. 332.

20. For examples, see Ermarth, "Contrasts in American and Soviet Strategic Thought"; Joseph D. Douglass, Jr., and Amoretta M. Hoeber, Soviet Strategy for Nuclear War (Stanford, Cal.: Hoover Institution Press, Stanford University, 1979); and Thomas W. Wolfe, The SALT Experience (Cambridge, Mass.: Ballinger, 1979), passim.

21. I.e., that active and passive defenses would not work.

22. See General-Major A.S. Milovidov, ed., The Philosophical Heritage of V.I. Lenin and Problems of Contemporary War (A Soviet View) (Moscow: 1972), Soviet Military Thought Series No. 5 (Washington, D.C.: U.S. Government Printing Office, 1975), p. 17.

23. Work in progress for the Office of the Secretary of Defense.

24. "Excerpts From Speech by Brown on a Strategic Arms Pact With Soviet Union," The New York Times, April 6, 1979, p. A10.

25. Hudson Institute has addressed this issue in Norman Friedman and Colin S. Gray, Soviet Vulnerabilities and U.S. Strategic Employment Policy, HI-2959-RR (Croton-on-Hudson, New York: Hudson Institute, December 1978).

26. This term has been suggested by our colleague, Herman Kahn. It is difficult to ignore the fact that the Soviet military is formally academic, even perhaps scholastic, in much of its training, to a degree which could (and should) inhibit creative behavior in real-time.

27. An excellent examination of military performance in the "base-case," is contained in Barnett, et al., Current Theater Force Capability to Counter a Minimum Warning Attack (unpublished).

28. As of late 1979, no serious observer of Soviet military affairs can fail to be impressed by the totality of the Soviet investment in improved

combined-arms capability. A recent summary by the leading Western authority on the Soviet military makes for grim reading. See John Erickson, "NATO's Balancing Act," Current History, Vol. 77, No. 451 (November 1979), pp. 145-7, 180, 186.

29. To date, NATO has benefited from this fact--possibly NATO has misunderstood this and has, instead, congratulated itself on the deterrent efficacy of its defense posture.

30. NATO, since its creation in Spring 1949, has never had to cope with such a Soviet opponent. As a consequence, the alliance tends to manage its affairs more to reduce sacrifices of divergent allied-member needs in peacetime, than for deterrence of/defense against a truly desperate Soviet Union. Thirty years of "successful" deterrence in Europe can easily obscure the historical fact that the alliance has yet to be challenged very seriously.

31. For example, it is entirely possible, and indeed probable, that NATO-Europe would be unwilling to sanction extreme measures for local defense in Central Europe, preferring, instead, to rely upon the dissuasive interdictive effect of U.S. central-strategic intervention in the conflict. Given that the days of the central-system "equalizer" are now long past, the potential for catastrophic NATO-European miscalculation is glaringly obvious. This argument is delineated with unusual clarity in Henry A. Kissinger, "The Future of NATO," The Washington Quarterly, Vol. 2, No. 4 (Autumn 1979), pp. 3-17. (This is the now-famous Brussels speech.)

32. See Wolfe, The SALT Experience, Chapter 8.

33. Useful analysis in support of this point may be found in Joseph D. Douglass, Jr., and Amoretta M. Hoeber, System Planning Corp., Trends in Soviet Strategy for War in Europe (unpublished).

34. See Benjamin S. Lambeth, "The Political Potential of Soviet Equivalence," International Security, Vol. 4, No. 2 (Fall 1979), pp. 22-39.

35. U.S. Congress, Senate Committee on Foreign Relations, Nuclear Weapons and Foreign Policy, Hearings, 93rd Cong., 2nd sess. (Washington, D.C.: U.S. Government Printing Office, 1974), p. 160.

36. (Washington, D.C.: U.S. Government Printing Office, January 25, 1979) pp. 74-81 are particularly ambiguous: Just what is a "countervailing strategy?"

37. Congressman Aspin, for a leading example, has claimed that Soviet "readiness" standards as observed even in the category I divisions of the GSFG do not meet U.S. readiness standards--ergo, the threat of the minimum warning attack is much exaggerated!

38. Over the past few years some non-Russian language speaking American analysts have discerned major doctrinal innovations in Soviet military texts.

39. For example, every one of the Soviet books translated for, and published under the auspices of, the USAF in the "Soviet Military Thought" series, clearly is intended primarily for the domestic Soviet military-professional audience.

40. For a mildly skeptical analysis, see Karl F. Spielmann, The Political Utility of Strategic Superiority: A Preliminary Investigation Into the Soviet View, P-1349 (Arlington, Va.: Institute for Defense Analyses, May 1979).

41. Examples abound. See, for near perfect illustration of my point, V.V. Larionov, "The Nuclear Threshold Debate," USA: Economics, Politics, Ideology, No. 7 (July 1978), in JPRS, 71919 (22 September, 1978), pp. 13-31.

42. In particular, Soviet leaders may be skeptical about the political benefits that could accrue from a favorable "correlation of forces." See the excellent discussion of this matter in Lambeth, "The Political Potential of Soviet Equivalence." However, a skeptical agnosticism over the probable payoff from massive and sustained military investment is fully compatible with the view that it is the duty of the U.S.S.R. to seek whatever political benefit might accrue.

43. See Friedman and Gray, Soviet Vulnerabilities and U.S. Strategic Employment Policy.

44. What nobody can assess today is whether or not the Soviets have fashioned, in their armed forces, a competent and flexible fighting instrument.

45. To appreciate the context for this claim, see C.N. Donnelly, "Tactical Problems Facing the Soviet Army: Recent Debates in the Soviet Military Press," International Defense Review, Vol. 11, No. 9 (1978), pp. 1405-12.

46. See Christopher Bellamy, "Seventy Years On: Similarities Between the Modern Soviet Army and its Tsarist Predecessor," RUSI Journal, Vol. 124, No. 3 (September 1979), pp. 29-38.

47. There is food for thought in R.H. Baker, "The Origins of Soviet Military Doctrine," RUSI Journal, Vol. 121, No. 1 (March 1976), pp. 35-43. The Trotsky-Frunze debate on doctrine in the early 1920s highlighted some enduring themes concerning Soviet affairs.

48. See Phillip A. Karber, The Tactical Revolution in Soviet Military Doctrine (McLean, Va.: The BDM Corporation, March 2, 1977).

49. The Soviet Military Press: A Review (1978). University of Edinburgh, Defence Studies, January 1979, p. 10.

50. Smelyi reid became "daring thrust."

51. National "style" in security matters, or strategic culture, is soon to be the subject of a major research project at Hudson Institute.

52. Jack L. Snyder, The Soviet Strategic Culture: Implications for Limited Nuclear Operations, R-2154-AF (Santa Monica, Cal.: RAND, September 1977), p. 8.

53. Soviet strategic culture, at all levels, including military tactical preferences, has clearly identifiable roots in pre-1917 Russia. Some admission of this undeniable fact may be found in V. Ye. Savkin, The Basic Principles of Operational Art and Tactics (A Soviet View), Soviet Military Thought Series No. 4 (Washington, D.C.: U.S. Government Printing Office, 1975), Chapter 1. The Imperial Field Service Regulations of 1912-14 remained in force until the second half of the 1920s. Moreover, as late as 1929, former imperial officers dominated the Soviet literature on strategic and tactical theory on the order of 4:1 over theorists who had served only in the Red Army.

54. For a sound standard treatment see Russell F. Weigley, The American Way of War: A History of United States Military Strategy and Policy (New York: Macmillan, 1973).

55. For example, folk memories of "the Mongol Yoke" still endure. See James Chambers, The Devil's Horsemen: The Mongol Invasion of Europe (New York: Atheneum, 1979), Chapter 6.

56. Karl Haushofer, quoted in Derwent Whittlesey, German Strategy of World Conquest (London: Robinson, 1942), p. 73.

57. The U.S.S.R.'s psychological insecurity problem is our principal security problem.

58. I explore this subject in some detail in The Geopolitics of the Nuclear Era: Heartland, Rimlands, and the Technological Revolution (New York: Crane, Russak [for the National Strategy Information Center], 1977).

59. Or in a preemptive mode for fear of losing them to NATO's nuclear counterbattery fire.

60. Mobility and a high tempo of combat operations is identified in authoritative Soviet texts, unambiguously, as "the most important principle of operational art and tactics." Savkin, The Basic Principles of Operational Art and Tactics (A Soviet View), p. 168. Also, see: John Erickson, "Soviet Theatre-Warfare Capability: Doctrines, Deployments, and Capabilities," in Lawrence L. Whetten, ed., The Future of Soviet Military Power (New York: Crane, Russak, 1976), particularly pp. 133-53; and Peter H. Vigor, "Soviet Army Wave Attack Philosophy: The Single Echelon Option," International Defense Review, Vol. 12, No. 1 (1979), pp. 43-6.

61. This spirit permeates the Soviet professional military literature. For example, see Col. General Lomov, ed., Scientific Technical Progress and The Revolution in Military Affairs (A Soviet View), (Moscow: 1973), Soviet Military Thought Series No. 3 (Washington, D.C.: U.S. Government Printing Office, 1975).

62. Indeed, it might make little sense to attempt to speculate over political, as opposed to military, direction of a war--most probably there would be an effective fusion of the two elements at the topmost level of command. Note the speculation in Harriet F. Scott and William R. Scott, The Armed Forces of the USSR (Boulder, Colo.: Westview, 1979), p. 105.

63. Ritual incantations bearing upon the alleged relevance of Marxism-Leninism and the war-proneness of imperialism (and particularly of an imperialism on its last legs) are deemed appropriate to cover what Western strategists chose to take as their major field of endeavor. An extra-terrestrial Ph.D. student might be puzzled were he to attempt a thesis comparing and contrasting the literary outpourings of "the best and the brightest" "strategists" of the two superpowers. Compared, say, with Bernard Brodie's Strategy in the Missile Age (Princeton, N.J.: Princeton University Press, 1959) and War and Politics (New York: Macmillan, 1973), the Soviet "Officer's Library" reads like a series of instruction manuals.

64. It should be remembered that allegiance to the operational tactic of preemption, in Soviet perspective, is more akin to "anticipation" than it is to being faster on the draw. Western strategists draw a very clear line between prevention and preemption. Soviet nuclear practice could well be triggered by so strong a determination to achieve the latter, that they succeed in achieving the former. Note the useful comments in Douglass and Hoeber, Soviet Strategy for Nuclear War, pp. 9-10.

65. For example, see Marshall of the Soviet Union K. Moskalenko, "Constant-Combat Readiness In a Strategic Category," Voyennaya mysl' No. 1 (January 1969), FPD 0087/69, p. 14.

66. There is no less unique a Soviet foreign policy, than military, style. However, this author would suggest, on the basis both of the historical record and of common logic, that Soviet foreign policy style is far more subject to the particular dramatis personae in the Kremlin, than is military style.

67. See Armbruster, et al., Scenarios for Military Balance Analyses, Vol. II: Priority One Scenarios.

68. There is an unfortunate paradox in that anybody attentive to the history of the Twentieth Century should agree that pre-war defense communities tend to plan to wage "the wrong war"; but--undaunted, and probably necessarily--Western defense communities insist that they be persuaded of the probability/reasonable possibility of occurrence of particular scenarios as the required basis for long-term defense planning. In other words, U.S. defense planners behave as if the future were predictable in important respects, even though most of the evidence (i.e., history) denies that this is likely to be true. A good deal of unsound social scientific research has been officially funded in quest of the chimera of scientific predictability.

69. Of considerable educational value, through negative example--i.e., its reading usefully exposes the student of Soviet military affairs to important errors--is a recent novel by Douglas Terman: First Strike (New York: Scribner's, 1979). In this tour de force, the Soviets are deemed to have decided to go to war when they achieve an "89 percent probability of 'winning.'" "Winning" would be a condition wherein the U.S.S.R. controlled a largely undamaged U.S. economic system, while having suffered the loss of no more than 18 percent of its industry, 12 percent of its population, and could regain its extant level of GNP within 5 years. P. 33. Terman betrays no breath of understanding of why states choose to go to war, but--and it is a considerable but--his algorithms (misapplied) for war probably do apply very extensively to Soviet decision-processes at the military operational level.

70. Of the many works that could be cited, see: Bernard Brodie, Escalation and the Nuclear Option (Princeton: Princeton University Press, 1966); Thomas C. Schelling, "Nuclears, NATO and the New Strategy"; and Henry A. Kissinger, ed., Problems of National Strategy: A Book of Readings (New York: Praeger, 1965), particularly pp. 176-77.

71. The 572 Pershing IIs and GLCMs proposed for NATO's deep-strike theater-nuclear modernization program, appear to have considerably less than a direct connection with any serious analysis of the desirable target structure in the East.

72. In "Deterring Our Deterrent," Foreign Policy, No. 25 (Winter 1976-77), pp. 195-210.

73. Unless they believed that the United States could, and would, impose defeat at the homeland-to-homeland level of conflict. Reasons why the Soviet leadership should not be unduly nervous concerning possible central interdiction of a theater conflict are conveyed persuasively in Kissinger, "The Future of NATO."

74. See Part I of this report.

75. Note the judgment of John Erickson: "Soviet theater forces must provide and preserve that capability to seize the initiative and launch a preemptive counterforce blow against NATO forces with the place, time, and strength all of Soviet choosing." "Soviet Theatre-Warfare Capability: Doctrines, Deployments, and Capabilities," p. 135.

76. I have developed this thesis, at length, in my book Strategic Studies and Public Policy: The American Experience (Lexington, Ky.: The University Press of Kentucky, 1980). For some historical perspective see Bryan Ranft, ed., Technical Change and British Naval Policy, 1860-1939 (London: Hodder and Stoughton, 1977).

77. See Morton H. Halperin, Limited War in the Nuclear Age (New York: Wiley, 1963); and for a critique that retains its authority, Robert Osgood, "The Reappraisal of Limited War," in Problems of Modern Strategy, Part 1, Adelphi Paper No. 54 (London: Institute for Strategic Studies, February 1969), pp. 41-54.

78. The contemporary Soviet debate concerning "the revolution in military affairs," as best we can tell, is distinctly non-Western in character. For that debate readers need to study the "Special Collection" on the New Soviet Military Doctrine provided to the West by Colonel Oleg V. Penkovskiy.

79. The truth is that we do not, and cannot, know ahead of time just how the Soviets would resolve their principal nuclear-use dilemma: to go very early, thereby ensuring seizure of the initiative, but thereby licensing a NATO reply which could embarrass seriously the pace of an offensive that had barely begun to roll; or to go much later, thereby risking a surprise nuclear attack by NATO. There are excellent political, military, and psychological reasons why the Soviets should prefer to delay their initial nuclear strike (Douglass and Hoeber, Trends in Soviet Strategy for War in Europe, [unpublished]).

80. There is no evidence seen by this author which would suggest any Soviet interest in "riding out" a first NATO strike--or even any interest in accepting knowingly a substantial risk that such an attack might have to be ridden out.

81. For a strong argument in support of this view, see Marc E. Geneste, "The City Walls: A Credible Defense Doctrine for the West," Orbis, Vol. XIX, No. 2 (Summer 1975), pp. 477-90.

82. For an appropriate brief critique, See William R. Van Cleave and S.T. Cohen, Tactical Nuclear Weapons: An Examination of the Issues (New York: Crane, Russak, 1978), particularly pp. 54-63.

83. Echelon numbering varies among authorities. As employed here: the first echelon comprises those Pact forces in Eastern Europe committed immediately to the attack; the second echelon comprises those Pact forces in Eastern Europe withheld from the immediate attack, but committed very soon thereafter; while the third echelon comprises Soviet forces normally deployed in the Westernmost military districts (MDs) of the U.S.S.R. The leading alternative is to designate (most) Soviet forces deployed forward in Eastern Europe (and the better Pact-allied forces) as the first echelon; to designate the "category one" (of readiness) forces of the Baltic Belorussian, Moscow, Kiev, and Carpathian MDs as the second echelon; and to designate as the third echelon those Soviet units in the Western MDs that require substantial mobilization to be brought up to strength.

84. A leading Western authority on the Soviet army has written as follows: "Furthermore, the cry comes through very clearly that, if nuclear weapons are used effectively by the enemy, then there is little chance that an offensive will succeed. This is because even if the defenders are similarly reduced by Soviet nuclear strikes, the problems of recovering control and continuing the offensive in a purposeful manner are almost insuperable." Donnelly, "Tactical Problems Facing the Soviet Army," p. 1410.

85. The survivability of NATO's nuclear arsenal and its diverse means of delivery is, of course, highly scenario-dependent. Once nuclear weapons are dispersed from their storage igloos, NATO's shorter-range nuclear assets (Lance and artillery tubes) should be quite difficult to attrite.

86. The mind of the enemy commander (and his staff) is really the critical target for attention. Confusion is the midwife of defeat.

87. See Savkin, The Basic Principles of Operational Art and Tactics (A Soviet View), Chapter 3.

88. Also note the speculation in John D. Baker, Jr., "Where the Soviets are Vulnerable," Army, Vol. 28, No. 8 (August 1978), p. 25.

89. See Basil Liddell Hart, Strategy: The Indirect Approach (New York: Praeger, 1967, first publ. 1929).

90. See Van Cleave and Cohen, Tactical Nuclear Weapons: An Examination of the Issues, p. 59.

91. For a useful Western commentary, see Donnelly, "Tactical Problems Facing the Soviet Army," pp. 1408-10.

92. Friedman and Gray, Soviet Vulnerabilities and U.S. Strategic Employment Policy.

93. For a strong argument to the effect that "[a]n in-depth, massive surprise nuclear strike, in conjunction with an immediate, high-speed air and ground exploitation, is still the dominant Soviet concept for war against NATO," see Joseph D. Douglass, Jr., The Soviet Theater Nuclear Offensive, Studies in Communist Affairs Vol. (Washington, D.C.: U.S. Government Printing Office, 1976), p. 4.

94. NATO's High Level Group on the modernization of the long-range theater nuclear posture identified this as the principal rationale for the introduction of 108 Pershing IIs and 464 GLCMs--they are intended to "fill [the] escalation gaps." "HLG Draft Report (US)," 9/21/79, p. 1. The second rationale was "link theater and strategic (strategic parity requires)."

95. See the discussion in A.A. Sidorenko, The Offensive (A Soviet View) (Moscow: 1970), Soviet Military Thought Series No. 1 (Washington, D.C.: U.S. Government Printing Office, 1974), pp. 132-37.

96. The concept is borrowed, though with its meaning somewhat broadened, from Herman Kahn, On Escalation: Metaphors and Scenarios (New York: Praeger, 1965), pp. 88-89.

97. Interesting analysis of the selectivity theme is Joseph D. Douglass, Jr., A Soviet Selective Targeting Strategy Toward Europe (Arlington, Va.: System Planning Corporation, August 1977).

98. See Kissinger, "The Future of NATO," and Colin S. Gray, "The Strategic Forces Triad: End of the Road?," Foreign Affairs, Vol. 56, No. 4 (July 1978), pp. 772-74.

99. This merits description as counter-intuitive. For more than twenty years, the U.S. defense community, for good apparent reasons, has been wedded to the idea that a central war erupts out of an escalation sequence that begins, and may continue for some time, in a local theater.

100. See L.L. Farrar, Jr., The Short-War Illusion: German Policy, Strategy and Domestic Affairs, August-December 1914 (Santa Barbara, Cal.: ABC-Clio, 1973), Chapter 1.

101. Recent convincing, really definitive, evidence of Soviet recognition of the tunes they might be able to play upon the NATO keyboard, has been provided by the propaganda campaign launched to interdict NATO-European decision processes on enhanced-radiation weapons (the "neutron bomb") and new long-range theater-nuclear delivery systems. Given their ideological perspective, Soviet officials should be expected to be extremely sensitive to "the contradictions of capitalism"--both within and between capitalist NATO countries.

102. See the brief speculation in Douglass, A Soviet Selective Targeting Strategy Toward Europe, pp. 28-9.

103. See fn. 87.

104. This author has seen no variant of this argument (concerning the potential danger of the readiness-upgrade process) in Soviet sources. To the extent that stability may be enhanced through dialogue--or even just the exchange of monologues--this thought probably is worthy of communication to Moscow.

105. There is every reason to believe that the Soviet military establishment remains convinced that there are valid lessons to be learned from the events of 1941-45. See Col. General F. Gayvoronskiy, "The Development of Soviet Operational Art," Military-Historical Journal, No. 2 (February 1978), in JPRS, 1344 (7 April 1978), pp. 38-47.

106. "Theater Nuclear Weapons and Europe," Survival, Vol. XVI, No. 6 (November/December 1974), particularly p. 269.

107. The significance of the concept of the "brawl" is very well developed in Joseph C. Arnold, "The Soviet Army: Blitzing, Brawling Child of Evolution," Army, Vol. 27, No. 5 (May 1977), pp. 22-6.

108. The contemporary East-West diplomatic imbroglio over the deployment of Pershing IIs and long-range GLCMs in NATO-Europe points to the central problem which geopolitics dictates for the confusion of tidy and strategically rational minds. The U.S.S.R. in 1979, vis-à-vis NATO's proposed deep-strike TNF modernization scheme, is striking an attitude to which many Americans should respond with empathy. In essence, the Soviets are saying that superpower territory is different

from other territory, and that a Soviet nuclear threat to NATO-Europe cannot be equated to a NATO-Europe based threat to the U.S.S.R.

109. In his recent book, Sir John Hackett presents a scenario wherein a NATO nuclear counterstrike (following a Soviet terror blow against Birmingham, U.K.), confined to Minsk in Belorussia, triggers the unraveling of the Soviet political system. The Third World War, August 1985 (London: Sidgwick and Jackson, 1978).

110. However, this is solely a matter of judgment. The U.S. defense community is undecided whether counter-political control (strategic) targeting is feasible or desirable. See Colin S. Gray: "Nuclear Strategy: The Case for a Theory of Victory," International Security, Vol. 4, No. 1 (Summer 1979), particularly pp. 67-69; and Targeting Problems for Central War, HI-3086-P (Croton-on-Hudson, N.Y.: Hudson Institute, October 1979).

111. On Theater Warfare, HI-3036-P (Croton-on-Hudson, N.Y.: Hudson Institute, July 1, 1979), passim.

112. The Soviet Foreign Minister, Andrei A. Gromyko, was particularly unpleasant at a news conference in Bonn on November 24. See John Vinocur, "Bonn Plays Down Gromyko Warning on U.S. Missiles," The New York Times, November 25, 1979, p. 3; and Robin Smyth, "Gromyko blows a chill wind," The Observer (London), November 25, 1979, p. 6.

113. In a military sense they relate, preeminently, to the deep interdiction of Soviet forces moving from the U.S.S.R. towards Central Europe.

114. Rumanian armed forces have no known role in Pact offensive plans, and probably should not be counted in the Pact "order of battle." The skin-deep socialist ideology of Rumania is as nothing in emotional reality compared with the historical-territorial issues with Bulgaria (over the Dobrudja), with the U.S.S.R. (over Bessarabia) and Hungary (over Transylvania).

115. It should be needless to say that this line of speculative argument cannot be documented from Soviet sources.

116. See Part I of this report.

117. Ibid.

118. On Theater Warfare.

119. See Samuel T. Cohen, On the Stringency of Dosage Criteria for Battlefield Nuclear Operations, P-5332 (Santa Monica, Cal.: RAND, January 1975).

120. See Paul Bracken, "Urban Sprawl and NATO Defense," Survival, Vol. XVIII, No. 6 (November/December 1976), pp. 254-60.

121. Such schemes would appear to be "unprofessional."

122. In other words, almost regardless of how the war begins, the Soviets have a near single-variant perspective upon its military conduct.

123. See Scott and Scott, The Armed Forces of the U.S.S.R., Chapter II. In military professional terms, and by way of comparison with Soviet practice, the higher military education provided at the U.S. service (and national) "war colleges" is close to being a joke. However, it is not self-evidently the case that military performance and military education are necessarily that closely related. See Norman F. Dixon, On the Psychology of Military Incompetence (London: Jonathan Cape, 1976).

124. Considerable enlightenment may be derived from V.V. Druzhinin and D.S. Kontorov, Decision Making and Automation: Concept, Algorithm, Decision (A Soviet View) (Moscow: 1972), Soviet Military Thought Series No. 6 (Washington, D.C.: U.S. Government Printing Office, 1975).

125. The long-standing Russian/Soviet obsession with highly formalized doctrine and authoritative algorithms flows directly from a lack of confidence in the ability of subordinate command levels to make wise real-time decisions on a qualitative, and largely pragmatic basis.

126. Note the important discussion in Savkin, The Basic Principles of Operational Art and Tactics (A Soviet View), particularly pp. 163-64. Soviet military authors, with good reason, tend to prefer to treat "economy of force" as being a variant upon their preferred formulation of "concentration of efforts." Ibid., pp. 201-29.

3. DEFINING THE THREAT: THE PROBLEM FOR NATO

This study concludes that the Soviets will tend to avoid issues of escalation control by reserving their tactical nuclear arsenal for a pre-emptive strike, with the principal targets NATO nuclear weapons and command and control not already destroyed by earlier conventional attacks. They will consistently prefer these two classes of targets to the potential exclusion of others, on the theory (derived from the development of the "Revolution in Military Affairs") that weapons of mass destruction alone can be decisive against the "permanently operating factors" which favor the Soviet Union in war. However, given the great conventional strength of the Soviet armed forces, Soviet doctrine does not appear to require an initial mass nuclear strike. One might suspect that this willingness to begin with a conventional phase reflects a considerable measure of deterrence enforced by Western strategic weapons: the Soviets, perhaps rightly, suspect that a natural consequence of any early nuclear strike would be massive and perhaps uncontrollable escalation.

Indeed, the burden of Soviet doctrinal writings seems to us to be an obsession with nuclear and other "weapons of mass destruction," which have the potential for deciding a major war. Soviet political doctrine emphasizes the importance of victory in war; return to the status quo ante is not an acceptable outcome for the Soviets, as we claim it is for us. Moreover, what Soviet strategic writing is available to us does not entertain those concepts of strategic and even tactical bargaining which are the common currency of Western analysts. The Soviet Army is daily instructed in a variety of offensive tasks consonant with an integrated war plan for an advance across Western Europe. Given the risks inherent in any European

war, it seems unlikely that, once the decision for war has been taken, the Politburo will shrink from those measures it has been told over and over again are likely to be decisive.

The Soviet world-view outlined in Part I of this report suggests strongly that a European war will begin in a context which, to the Soviets, suggests either the possibility of a catastrophic collapse of the West or else a Western offensive aimed at the destruction of the Soviet Union. Lesser issues are unlikely to call forth the sacrifices entailed in a large-scale European war. In the Soviet literature, nuclear and other mass-destruction weapons are so often associated with decisive results that it seems unwise to imagine that very limited exchanges would be maintained. However, at the same time it is possible to suggest that in reality the scenario might be far less clear than Soviet leaders suppose and, moreover, that brave words and thoughts may imply imprudent actions as the Soviets stand on the brink of a nuclear war, with ambiguous intelligence indications in hand. The stronger the NATO stance, the less likely the Soviets are to imagine that a push on their part will suffice to end the East-West struggle. Other NATO measures can make intelligence indicators of a NATO nuclear strike far less unambiguous than would be the case in the near future. Paradoxically, given their theoretical concerns, the Soviets do not appear to entertain the real possibility of a successful NATO conventional military offensive, which they would have to blunt using nuclear weapons. Rather, they assume that they will be able to preempt in both the strategic and the tactical sense: in the strategic sense, they will detect a NATO offensive, and launch the spoiling attack which will carry them to victory. In the tactical sense, they expect to be able to detect preparations for a NATO nuclear strike. The latter policy is quite reasonable only because NATO

abjures an all-nuclear opening phase. Indeed, it might be argued that the closer NATO comes to being able to go undetected from the conventional to the nuclear, the closer the Soviets will come to opening with a massive nuclear barrage which must not merely destroy the NATO nuclear arsenal but also much of NATO's population and industrial base, even if only through collateral damage.

Two pillars of Soviet policy are, therefore, a belief in the availability of unambiguous intelligence of NATO intentions, and the belief that the Soviets will be capable of extremely rapid decision-making on that basis. Against these must be set the ever-present "fog of war" and the uncertainties inherent in any massive escalation. Moreover, the Soviets must be aware that they cannot with certainty destroy all NATO nuclear assets (e.g., submarines). They are likely to fire, then, not because of some calculation showing that firing is particularly profitable but more because of their belief that "if they do not use it, they lose it."

One extremely disturbing possibility is that, in the absence of reliable intelligence, the Soviets would resort to some type of operational analysis to <u>predict</u>, on the basis of NATO declaratory doctrine, when NATO will make its own nuclear strike, and then to preempt (in theory) on this basis. Such an approach has the apparent attraction of avoiding the problems of intelligence collection, but on the other hand it negates the advantages of preemption. One important virtue of the operational analysis is that it can be used, in combination with somewhat ambiguous intelligence data, to convince Soviet political leaders of the need for nuclear release.

In political terms, the great advantage of the preemptive approach to nuclear attack is that the leader signing the release does not feel that, by his own act, he is starting the nuclear exchange; he is only doing

what has been forced on him by the enemy. Just how convincing this type of argument is in practice depends in large part on how well the politician in question understands the ambiguities of the intelligence data at his disposal. Western experience suggests that politicians in general distrust intelligence data bearing on such grave questions. Moreover, the general thrust of Western political policy is to preserve the status quo, and even to avoid belief in any serious attempt by the Soviets to undermine that status quo. Just how far any of these arguments apply to Soviet leaders is open to question. In theory, they are both expansionist and paranoid; they look to the West and see enemies dedicated to their ultimate destruction. To men who really hold such beliefs, there is no true security short of the destruction of their sworn enemies, a concept generally dismissed in the West. The Soviets may also be far more prone than we to fears of a genuine surprise first strike; our relatively weakly protected nuclear forces look suspiciously like a first strike force. This seems particularly the case in NATO, where the vulnerability of some systems, such as the QRA aircraft, is used politically to ensure linkage between tactical and strategic attacks. It is by no means clear that such linkage has any significance for the Soviet planner.

With the clear belief that nuclear weapons can be decisive, the Soviets currently devote considerable resources to the protection of their own theater nuclear weapons. NATO can use this belief to reduce the cutting edge of the Soviet conventional offensive by causing the Soviets to increase that proportion of their conventional forces that must be devoted to weapon defense. The implementation of such a policy on NATO's part might conceivably improve the effectiveness of NATO attacks on Soviet offensive forces during the conventional phase.

In practice, this might mean, first, public acceptance of a counter-(Soviet) nuclear mission on the part of NATO tactical air forces, using aircraft and weapons which should call forth a substantial diversion of anti-aircraft rounds on the part of the Soviets. An example might be the proliferation of conventionally-armed cruise missiles directly to improved reconnaissance assets. The conventional character of the attack weapons is important because it makes them credible as an early-use option. Were this threat to become credible, it might divert anti-aircraft resources from Warsaw Pact conventional maneuver forces, leaving them more open to NATO tactical aircraft. Acceptance of this mission reasoning concerns the efficacy of nuclear deterrence (i.e., we are suggesting the value of neutralizing Soviet TNF through direct physical action--rather than relying almost entirely upon the functioning of intra-war deterrence). The assignment of NATO troops specifically to seize Soviet tactical nuclear weapons (i.e., by analogy with Soviet paratroop formations and air-landing units) might cause the Soviets to increase the level of security around these weapons. Two potential gains could flow as a consequence: first, some Soviet troops and other conventional assets would not be fed into the battle, and, second, the increased security measures might make the Soviet tactical weapons more visible to our own reconnaissance assets. Any substantial increase in Soviet troop requirements would tend to make a surprise Warsaw Pact strike from the blue somewhat more difficult, particularly if it came at a time when Soviet strength in Eastern Europe were being reduced through an arms control agreement.

If indeed Soviet nuclear targeting doctrine emphasizes the destruction of NATO tactical nuclear weapons, then NATO can at least seek to reduce collateral destruction of NATO conventional military assets and civilians.

One essential point here is that physical measures which increase the survivability of the NATO weapons (and therefore reduce the utility of the standard Soviet attack) are unlikely to cause the Soviets to retarget. The reason is that the Soviets strike preemptively; they do not make a first strike based on some abstract calculation of its net effect on NATO. Rather, they strike in response to the expectation that NATO is about to strike, that weapons must be used rather than lost, and that they must limit damage by neutralizing as many NATO nuclear weapons as possib'

Given this context, wide dispersal of the NATO storage sites (and particularly their removal from close proximity to such important NATO conventional asets as airfields) is a way of reducing collateral damage. Dispersal and hardening together may well reduce the number of Soviet warheads available for attack on such non-nuclear targets as NATO command and control and population centers. Point defense of nuclear storage sites also increases the number of Soviet weapons which must be targeted on each, and so reduces the surplus available for other purposes. In this context the existence of such highly survivable NATO nuclear systems as those aboard submarines tends not so much to deter a Soviet strike as to reduce its military impact.

The basic Soviet preemptive doctrine assumes that it is always practical for the Soviets to detect NATO preparations for a nuclear strike. For example, the Soviets are well aware of the stereotyped NATO release mechanism, and they pay close attention to the operational use of communications intelligence. In practice they plan both to intercept NATO nuclear communications and to attempt to interfere with them, both by jamming and by the physical destruction of transmitters. All of this must look quite rational in a peacetime briefing in Moscow. However, NATO can seek to increase Soviet uncertainty by attempting to reduce the time between unambiguous indications

of a NATO strike and the strike itself. The physical dispersal of weapon storage might be a step in this direction; improved communications security might be another.

A move towards longer-range NATO nuclear weapons, such as GLCM or Pershing II, might also be helpful, in that such weapons would not have to be moved into position in order to interdict the battlefield. Moreover, since the physical security of rear-area weapons would not be affected by early events on the battlefield, it would not be possible for Soviet operations analysts to argue convincingly that they would have to be used to forestall their early loss by being overrun.

These suggestions are entirely separate from those tactical comments which follow from the mechanics of Soviet strike planning, particularly its relatively stylized character. If the Soviets find retargeting, particularly near the FEBA, relatively difficult, then last-minute relocation of NATO nuclear weapons, particularly with decoy cover, may reduce greatly the impact of a strike.

Indeed, NATO efforts to detect Soviet nuclear preparations might be the most fruitful use of NATO resources in the present context. Detection of the earliest stages of such a strike preparation might permit a timely (perhaps even preemptive) counterstrike; at the least they would permit timely relocation of nuclear and non-nuclear resources about to be struck. Pre-attack dispersal of weapon storage would contribute to the survivability of the NATO nuclear systems in the face of a Soviet strike, and in addition might make decoying much easier. From a weapon design point of view, the smaller the nuclear warhead the easier to move it and to simulate it. The better the safety devices, the more acceptable would be dispersal--which might be the only way of countering the proliferation of Soviet weapons.

Above all, the implication of Soviet strike doctrine for NATO would seem to be that the Soviets will emphasize NATO nuclear weapons as their targets, whether or not they can hope to destroy a substantial fraction of the NATO nuclear arsenal. The nuclear weapons are just too important to pass over. Such a doctrine, if indeed it is the Soviet view, would seem to have immportant consequences both for NATO tactics and for our concept of Soviet strategic operations. It is certainly in line with the general Soviet concept that in war the best target is the enemy's army, not something as nebulous as his "will to resist."

We are the Soviets' enemy, and our defeat is the Soviets' professed goal. Our military capability is therefore his target; the best that we can do is to turn this orientation to our advantage in a war we may not be able to avoid by deterrence.

Given Soviet predilections, the NATO response must also take into account the character of the alliance and its members; merely to suggest mechanical counters (such as greater peacetime dispersal of NATO nuclear weapons) may well be to avoid fundamental issues. Moreover, it seems unlikely that NATO will be able to eliminate some of its most severe vulnerabilities. NATO can, and should, adjust its force posture so as to decrease markedly the anticipated return from a Soviet preemptive (transition) nuclear strike. However, NATO also should acknowledge that if Soviet military analysis is severely skewed by the "use them or lose them" concept, no NATO TNF postural adjustment is likely to affect the occurrence and timing of the nuclear strike.

Moreover, NATO is in desperate need of some postural-doctrinal offset for the fact that it will have literally tens of millions of its civilian refugees unprotected on the roads, and will have its urban-industrial areas

and connurbations on the line of Pact march. For example, it is sometimes suggested that one vital function of Pact nuclear forces is so to threaten NATO states as to convince them to defect from the Alliance in a crisis. Soviet literature and behavior do not show the required flexibility and imagination, but this potential NATO vulnerability nonetheless should be addressed. Thus it is entirely possible that Soviet war-waging doctrine would be insensitive to the possibilities that its initial application had created.

For its part, NATO often seems to show an insensitivity to the military realities imposed by one of the greatest connurbations in the world. Too often, NATO campaign analyses seem to assume that "the war" would be waged on a continent-wide Luneberg Heath. In practice, however, the accepted NATO doctrine of defending its (heavily populated) ground requires a substantial willingness to accept great damage to that ground. West Germany and the Low Countries would, then, in principle, accept the logic of the fact that they constitute a potential battlefield. The West German Government and people, in the (anticipated) event that NATO's main line of resistance, far forward, were broken, would have to be prepared to defend their cities. This in turn would probably mean the demise of industrial West Germany. A rugged, in-depth, defense of that country would mean the prompt and lingering death of many of the tens of millions of civilian refugees who would be desperate to flee over the Rhine. Even if the Soviets did not attempt deliberately to exploit the vulnerability of West German civil society for political gain, their rational conduct of military operations would have to place millions of West German civilians at risk. It is an inescapable fact that NATO is preparing for the eventuality of having to fight what could be the most intensive war in history in and around the

most extensive, and densely populated, connurbation in the world! The case for forward, and preferably very far-forward (i.e., in Warsaw Pact Europe), defense scarcely needs to be made more explicit.

Since West Germany is adamantly opposed to the idea of risking its devastation by attempting to defend its cities, it appears to follow that NATO fights (and wins) on or before its border, or it fails in its primary mission--at best it permits the destruction of NATO-Europe without Soviet occupation. Steven Canby and Edward Luttwak have argued convincingly that NATO "strategy," so called, amounts to little more than an intention to engage the enemy in a grinding, nose-to-nose, campaign of attrition[1] (a campaign which NATO is certain to lose, given the gross asymmetry in the im balance of forces on each side available for attrition). Instead of the mechanized Verdun (or Kursk) envisaged by NATO, Canby proposed a flexible defense, relying upon maneuver and surprise flank counterattacks--with the added recent refinement of heavily decentralized battlefield nuclear fire. Canby's diagnosis of NATO's postwar-doctrinal ailments is convincing, but the demographic-industrial map of West Germany and the interpretation of that map as reflected in the likely political determination of a West German Government, casts doubts upon the viability of his alternative to current NATO defense intentions.

The logic of West Germany's well-publicized unwillingness to entertain high-intensity conventional, or nuclear, combat in its urban areas, means that NATO requires a much improved theory of genuinely forward defense. Such a theory could envisage preemptive "spoiling," and then with luck-exploitation, attacks eastwards; an immediate battlefield-nuclear defense of the frontier zone; or precipitate nuclear escalation to the Soviet homeland, according to some persuasive/coercive theory of intra-war deterrence

(naturally, a condition of strategic "rough parity" would not suffice for this last option).

Hudson's recommendations in this Part 3 fall into two categories. First, within the current structure of NATO defense-planning assumptions, small (though cumulatively significant) steps should be taken so as to reduce the vulnerability of NATO's theater-nuclear assets, and to increase the vulnerability of Soviet theater-nuclear assets. Second, we are persuaded that the explosive urbanization of post-war West Germany--a fact deeply imbedded in Bonn's steady resistance to nuclear war-fighting concepts--merits recognition in a NATO defense strategy which would not ask the impossible of NATO-Europeans. It is far from obvious that the Soviets would be skillful in exploiting NATO-European anxieties concerning nuclear strikes, but they would not need to be. The militarily sensible transition strike, as analyzed in this report, probably would have all the political fragmenting effect that any designer of political-demonstration nuclear employment would desire.

NATO-European anticipation, let alone absorption, of a "scientifically" designed Soviet nuclear transition strike, probably would have a political fragmenting effect which its authors did not intend (which is not to say that such would not be a massive, and welcome, bonus). The authors of this report find themselves in a curious position. Their mandate, to examine Soviet conventional/TNF transition issues, and the probable/possible structure of Soviet considerations vis-à-vis initial TNF employment, leads them to the conclusion that NATO confronts a political enemy who is very likely, through application of a clear war-fighting doctrine, to effect even more political than military damage upon the Western Alliance.

Thus, although it is possible to limit discussion to the most obviously military implications of Soviet policy, it seems extremely unwise to neglect to mention, albeit briefly, the potential political (and consequent military) catastrophe that applied Soviet TNF doctrine could effect upon NATO-Europe. Indeed, the resistance of Soviet doctrine to Western deterrent policy greatly increases its potential political impact. Our analysis, thus far, directs us to the conclusion that further detailed study is urgently required of the following subjects: ways to discourage Soviet TNF transition strikes; new concepts for forward defense (away from urban NATO-Europe); and escalation dominance in central (superpower to superpower) conflict.

PART 3 END NOTE

1. Canby: "Rethinking the NATO Military Problem." Paper prepared for the Woodrow Wilson Center for International Scholars, the Smithsonian Institution, Washington, D.C., May 10, 1978; A Comparative Assessment of the NATO Corps Battle (Potomac, Md.: C. and L. Associates, 24 November 1978); and "Tactical Nuclear Weapons and the Operational Art of War: Obtaining its Leverage While Reducing its Use." (Potomac, Md.: C. and L. Associates, July 29, 1979). Luttwak, "The American Style of Warfare and the Military Balance," Survival, Vol. XXI, No. 2 (March/April 1979), pp. 57-60.

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