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BY AN INAPPROPRIATE MILITARY STRUCTURE

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NATO MILITARY POLICY: THE CONSTRAINTS IMPOSED
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Commentators have maintained that American military power suffers from a gap between national commitments and resources; this paper argues instead that the problem is neither extent of commitments nor resource allocations but *how* these resources are being used to generate military power. Thus, it is the conceptual basis underlying the *design* and *use* of our military forces that calls for further analysis. This paper, an abstract from a larger paper, focuses upon NATO as the vehicle to develop the following three theses:

1. U.S. forces are not properly designed to perform their stated mission, and many of our allies have inappropriately imitated a dated American military model.
2. Attractive options have been effectively foreclosed to decisionmakers because of the costly misdesign of U.S. forces.
3. Economic and systems analyses of the general purpose forces have focused on secondary rather than fundamental issues.

The crucial assumption underlying many of NATO's policy dilemmas -- MBFR, escalation, burden sharing, and the like -- is the absence of conventional parity with the Warsaw Pact forces. Conventional parity would provide NATO with new and attractive options. This paper argues that NATO's conventional inferiority has occurred because NATO's strategy, force posture, and operating practices do not mesh with each other, whereas the Warsaw Pact's do. Specifically, *U.S. and NATO forces are not designed for the stated strategy, are structured on outdated assumptions, and use unnecessarily expensive operating practices.* This explains the paradox that while NATO's population, GNP, military budget, and military manpower levels are considerably greater than Pact's, Pact enjoys undisputed conventional superiority.

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The basic assumption underlying the NATO military instrument is obsolete: classic, unconstrained nation-in-arms conflict relying upon industrial potential, military expansion, and staying power. This underlying assumption permeates the entire instrument -- its strategic notions, organization patterns, resource allocations, and manpower policies. Such an encompassing assumption inhibits recognizing and assimilating the realities imposed by nuclear weapons and new technology.

The NATO military objectives are deterrence and defense. Yet NATO, and the United States in particular, maintain all-purpose, *offensive*-oriented expeditionary style forces that do not optimize deterrence because of their low *initial* combat capability and their unstable tactical nuclear posture. A force structure oriented for deterrence and defense can be bought at much less cost than at present -- as best exemplified by Soviet forces in East Germany. *Adjusted* (equal front line platoon strength, defined as infantry, tank, cavalry, and anti-tank), peacetime division slices (the division itself plus its share of non-divisional support personnel) total *approximately* 43,500 for U.S. forces; but only 18,000 for Soviet forces.*

BROAD CONSIDERATIONS

Being resource-inferior, the Warsaw Pact's "win strategies" are limited to those that would prevent NATO from developing its much greater military potential. Thus, the Soviets are restricted to a quick offensive strategy, and they have organized their ground forces accordingly. NATO has potential quantitative and qualitative superiority, yet it would probably lack sufficient time to develop this potential if war were to break out. If NATO could defend itself *initially* and therefore protract the war, the Alliance should ultimately prevail by transforming its superior resources into a military capability. Provided NATO is concerned only with deterring and defending itself against the Pact, as stated in declared policy, then NATO's force posture in the critical center region should emphasize the defense; NATO need only to sustain its forces just slightly longer than Pact's. The crucial point is that unless NATO wants

* These estimates can be deduced from the Institute of Strategic Study's *The Military Balance*, 1970-71, and such open sources as U.S. Army FM 30-102, *Handbook on Aggressor Military Forces*.

to outspend Pact in land forces (the decisive element), NATO must obtain its "outlasting" sustaining resources *relative* to Pact by organizing properly for the defense, but not, as is currently the case, at the expense of initial combat power. Proper posturing would give NATO conventional military dominance: a conventional capability at least as great as Pact's and ultimate superiority should a conflict be prolonged.

THE STRATEGY OF FLEXIBLE RESPONSE

Since its formation in 1949, NATO strategy and planning has been *distorted* by its exaggerated view of Soviet strength and *constrained* by an inappropriate and inefficient use of military resources. Because NATO has been convinced that it could not possibly match the Pact's conventional forces, it has sought offsetting strategies and military approaches, with particular emphasis upon nuclear weapons.

NATO could conceivably develop new strategies. A return to nuclear strategic superiority is a hypothetical possibility, but no sustained U.S. effort that might provide a *permanent* advantage appears likely. Therefore, the search for a new NATO strategy is limited to compensatory schemes for doctoring NATO's conventional and tactical nuclear war-fighting deficiencies within an overall strategy of graduated deterrence. However, a strategy of Flexible Response without adequate conventional forces* is a potentially dangerous strategy for an alliance that can fracture during a crisis.

* One widely publicized school of thought contends that because NATO has as much manpower in the center region, NATO is militarily as strong, or almost as strong, as the Warsaw Pact. This contention, however, is based on indicators measuring how well Soviet forces could fight an American style of warfare based on firepower (i.e., largely indirect fire weapons, such as artillery) and staying power. Unfortunately, the Soviets fight a different style of shock or striking power warfare that precludes the requirement for staying power and a large logistical system. Moreover, the school's key contention that while Pact has more tanks, NATO has anti-tank superiority is erroneous. While NATO does have more anti-tank weapons, the Pact has a considerable superiority in *major* anti-tank weapons (as opposed to smaller infantry systems) and a superior tactical organization for their deployment.

The general difficulty with dependence upon tactical nuclear weapons lies in having to cross the nuclear threshold. The particular difficulty of the "clean and small weapon" approach is the implicit assumption that both sides will play by the same "rules." Should the Soviets adopt similar clean and small weapons, NATO's original problem of insufficient combat forces would reemerge.

Europeans object to strengthening NATO's conventional defense because they perceive a number of disadvantages to themselves in such a policy. Most serious, a stronger conventional defense *appears* to them infeasible without very large peacetime budgetary outlays. They also feel that the incremental increases continually urged by the United States actually run counter to their preferred emphasis upon declaratory deterrence: they fear that if conventional forces are available during a crisis, the exercise of strategic options may be delayed and limit the conflict to European territory -- thereby weakening deterrence. Finally, Europeans generally associate conventional defense with either World War II levels of destruction or, given NATO's conventional weaknesses, tactical nuclear warfare on their territory.

One flaw in this European thesis lies in the assumptions about the destruction that would be wrought by conventional warfare. A short conventional conflict in Europe, regardless of its intensity for the combatting forces, would be minimally destructive to the civil populace and economic base. Such destruction no longer serves a useful military function and neither side now has the weapons systems for large scale conventional destruction.

Another key flaw in European perceptions stems from their cost assumptions. With appropriate restructuring, NATO could buy a viable (as opposed to a larger but still inadequate) conventional defense that would strengthen declaratory deterrence, since NATO's deterrence problem has been caused by conventional inferiority in an overall context of strategic superiority. With the conventional deficiency corrected, there would be no military asymmetry to tempt the Soviets.

NATO should resist the temptation (at least until the above condition of an adequate initial defense in the center region is satisfied) of diverting resources from the center to the flanks and to maritime forces which have little relevance to the land battle or are designed to protect the sea lanes for a long war. The propensity to divert resources to noncritical areas has been justified by clichés (e.g., referring to macro issues on NATO's flanks in terms of inappropriate *micro-concepts*, such as "out-flanked," "cut-off," etc.). NATO's critical region is Western Europe. If Western Europe collapses, control of the seas and defense of the flanks would be difficult and probably useless.

A final point of considerable importance is that the high expenditures for surface and ASW fleets (15 and 13 percent respectively of total U.S. NATO costs) are logically inconsistent with NATO's strategic requirements. The warfighting functions of surface naval craft have become confused with their political value. Yet the two aspects are no longer coextensive in the nuclear era. A classic war-at-sea would have little relevance to the land battle even if the Soviets had the option. The purpose of NATO's surface fleet are primarily *political* (and *limited military contingencies*) and only secondarily for warfighting. NATO and the U.S. should recognize that deploying carriers with their highly advertised nuclear capabilities in the confined Mediterranean for warfighting purposes has had two adverse results: increasing the vulnerability of very high cost systems and inducing by their presence countervailing Soviet naval deployments. Thus, for a dated nuclear mission, which was always more contrived than realistic, the United States has fostered -- probably irreversibly now that Soviet decisions and investments have been made -- a Soviet naval presence in the Mediterranean and a mini arms race in the Middle East region.

THE SHORT VERSUS LONG WAR PROBLEM

Much more is involved than calculating the simple, non-recurring cost of stockpiles. The entire structure of NATO's land and air forces and the relevance of its maritime strategies are involved. NATO's land forces are

currently layered with sustaining resources necessary only for a long war; its air forces are oriented to air superiority and long-range supply interdiction for largely long-run purposes; and its ASW forces are relevant only for a long war.

For the United States alone, the *incremental* costs associated with maintaining a long war capability are about half of its total NATO costs. Another 15-plus percent is allocated to secondary contingency missions. Less than a third of present costs is directly related to *fighting* a short war in the crucial central region. This does not mean that these or other capabilities should be eliminated. They perform important political functions, and the possibility of a long war cannot be entirely dismissed. But the point is quite clear: the United States is not allocating enough for the primary problem and is allocating too much for issues of secondary importance.

To state the problem starkly: if NATO continues to ignore its short-run combat weaknesses, NATO's long-run capabilities are rendered useless by the potential of Pact's initial onslaught. A military force postured logistically for a short war can usually also fight a long war if the situation so develops, provided long lead time items are hedged and economic resources are available. But a military structured for a long war (and consequently weak in short war capabilities) may not survive to utilize its long war option.

Because the Soviets have designed their forces to peak early (see Appendix), a similar force design would enable NATO to match the Pact's initial combat capability without creating a long-run vulnerability. NATO would then have at least as great a warfighting capacity as Pact in the initial conventional category, while improving its tactical nuclear posture and retaining superiority in mobilization potential and strategic nuclear capabilities. In short, exchanging the current NATO long-run capability for larger numbers of smaller divisional forces would have an optimizing effect: greater deterrence, greater conventional and tactical nuclear warfighting capabilities, a higher nuclear threshold, and cost savings from reducing the need for large protective naval forces.

A final point in distinguishing between short and long war capabilities is that no sharp discontinuities exist. A scenario calling for say a "60-day capability" does not imply that the 61st day means defeat or a noncapability. Arguments implying such discontinuities usually have an emotive intent and are based on the measurement unit of "days of supply." In point of fact, items of support, e.g., maintenance, do not end abruptly but either run down or are rationed.

FORCE STRUCTURE: ITS RELATIONSHIP TO STRATEGY AND SPECIFIC
DEPLOYMENT AREAS

National force structures are often not designed for their intended use, and considerable savings could be realized by tightening the relationship. Global powers in particular face the dilemma of developing either specialized forces suited for particular areas or general forces adaptable to any conflict. The United States, with its wide range of foreign commitments, has stressed flexibility and has opted for an all-purpose force. The Soviets are new to global responsibilities and are still tied to forces specialized for combat in Western Russia.

In the post-WW II period, the two superpowers provided both the military models and extensive military assistance for their respective allies. Though imitation of the American military model in NATO's center has faded, reliance upon the U.S. model and U.S. aid has remained quite strong for the flank countries and has inhibited a search for doctrines more suitable to their special context. The Russian model has the converse problem: too Europe-specific for deployment elsewhere. Yet the Soviet model is far more effective than the American in the European context.

Furthermore, the "all-purpose" American model is not effectively attuned to the declared strategy of Flexible Response. The American force is offensively oriented with a built-in logistical system capable of indefinite support. However, a force specifically designed for Flexible Response and forward defense calls for a defensive stance with

a logistical system oriented for a short war but hedged against the less probable long war. An offensive force must emphasize expensive tanks; a defensive force can trade off tanks for anti-tank weapons (and still have more tanks for major counterattacks because fewer tanks need to be parceled out to defending infantry units). A defensive force can also rely extensively on prepositioned supplies and mobilized civilian assets, while an attacking force needs an elaborate logistic system to maintain its more actively used combat equipment, move its supplies forward, and repair a transport network damaged by a retreating enemy. Equally important is that short conflicts generally require less maintenance (equipment can be permitted to run down), fewer engineers (networks will suffer less destruction), and far fewer logistic troops in general.

Another feature of the current all-purpose posture is the unnecessary use of standardized equipment suitable for geographic and climatic extreme. A final deficiency of the American model lies in its expeditionary force organization, whereas "plugging into" the local economic infrastructure would permit logistics savings. Specifically, forces deployed in Europe do not need to be logistically balanced because local resources can be tapped.

OPERATING PRACTICES: CONSISTENCY AND COST EFFECTIVENESS

The processes by which resource inputs are translated into military outputs have been generally neglected. Systems analysis and operations research have been concerned with the mix or tradeoffs among the inputs and outputs but not with the processes themselves. Management engineering has examined the processes but has accepted as "given" the underlying military rationales and institutional boundaries. Analysts have thus focused on only one when *two* analytical tracks exist: (1) quantitative analysis to appraise those issues that can indeed be isolated from strategy and force structure and thence suboptimized; *and* (2) qualitative analysis to insure the logical consistency of military practices with the somewhat subtle implications of strategy and force structure. The big payoffs will not be found in quantitative analysis and its derived suboptimizations, but in evaluating operating practices from the broader perspective of

strategy, structure, and perhaps most important, the thought patterns that drive a military's doctrinal concepts, organizational patterns, equipment designs, and -- derived from these -- its resource allocations.

A Qualitative Example: Individual Versus Unit Replacement

In the NATO-Pact comparison, the most important operating difference, from which other more specific differences emanate, is the replacement system for wartime combat losses. NATO emphasizes *individual* replacement; Pact, *unit* replacement. NATO's combat units are sized on the assumption that units ought to be big enough to absorb substantial casualties and still function. Soviet units are sized for maximum shock, are incapable of sustaining serious losses, and must periodically be replaced and refitted. While the topic of replacement systems may seem overly technical, significant organizational implications follow from this choice.

Of the two systems, unit replacement is the more appropriate for tactical nuclear conflicts, short conventional wars, and the focused penetration/exploitation tactics of blitzkrieg-style conflicts. Individual replacement is relatively attractive in protracted infantry wars where the combat focus is diffused among all units and low casualty rates permit replacements to be absorbed in experienced units. Individual replacement systems are appropriate only under the assumptions of World War II, Korea, and Vietnam: sustained conflict and a tactical philosophy allocating effort (and supplies) more or less equally across the front.

The replacement system also impacts directly upon reinforcement schedules and the size and type of war reserve stocks. NATO has large manpower and equipment reserves, including a reported 5,000 tanks in war reserve stocks. But with an individual replacement system, NATO's manpower and equipment reserves must essentially stand by until losses in existing units create a vacancy or replacement need. Pact, on the other hand, organizes their reserve manpower as "fillers for a large number of extant peacetime divisions, most of which are kept at low strength levels. As a result, Pact has a large number of organized divisions, which can potentially swamp NATO because their buildup can

occur more rapidly. Thus, the unit replacement system also partly accounts for Pact's mobilization and reinforcement advantage.

Another advantage of the unit system is that its stringent allocation of maintenance resources forces peacetime operating economies, such as cheaper training practices and equipment storage -- procedures which do not seem to have detracted from the Soviet Army's apparent readiness.

Quantitative Examples

While the replacement system probably represents the greatest single example of potential savings through analysis of operating practices, innumerable other conceptual blocks exist that are not so interconnected with strategy and force structure. Many of these hangups result from the military's unwillingness to realize that it lives in a world of opportunity costs. Perceptions held by senior commanders, based on earlier experiences as company and battalion commanders, have caused military decisionmakers to opt for costly suboptimizations at the unit level which detract from overall, system-wide effectiveness. For instance, the "equal mobility" thesis (that supporting units should have cross-country mobility comparable with tanks) causes a preference for tracks over wheels for combat *and* combat support vehicles and complex tactical trucks over rugged commercial designs. Another example is the notion of "the tank as the best anti-tank weapon," which has inhibited the exploitation of new anti-tank and armored vehicular technology. Still another is the "flexibility of artillery" thesis, which overlooks the cost and rate-of-fire benefits of mortars and multiple rocket launchers. Analysis of these and other doctrinally entrenched practices could produce major potential savings. For purposes of this paper, however, it should be noted that *the Soviets economize by generally using these more rationalized procedures*. The Europeans in general increasingly fall between the United States and Soviet extremes.

IN CONCLUSION

At the outset, we asked: Why is NATO *outspending* Pact -- in terms of both men and money -- while buying *less* security? This so-called

"people-PEMA paradox,"* which so perplexed the McNamara analysts, can be resolved by examining the assumptions underlying NATO's organization for defense. Pact, consciously or not, has developed operating procedures and a force structure appropriate to its strategic requirements in a European context; NATO, and particularly its U.S. component, has not. Rectifying NATO's military structure could effectively release the resources necessary to implement flexible response and forward defense and concurrently remove some difficult political choices. The crucial questions boil down to whether NATO should opt for highly visible, high initial combat capable forces (as the Soviets do), or retain low visibility, low initial combat but sustainable forces.

NATO's military problem is structural. Yet few NATO students have recognized this problem, which has led them to incorrect prescriptions and suboptimizations. The search for greater uniformity and standardization among NATO member countries is an example of an incorrect prescription that may be logically sound but proves *erroneous* in practice. Given the preeminence of the American military model, the result would have been the universal adoption of an inappropriate American model. In the real world of budget constraints, this would have led to a considerable increase in support personnel at the expense of already scarce combat units.

Systems analysts have been overly dependent upon their analytic toolkit. Rather than developing qualitative insights into military institutions before applying their analytical tools, systems analysts have relied upon brute empiricism, tradeoffs at the margin, and resource inputs as measurement proxies for effectiveness. The emphasis upon such analytical *techniques* manifests either an acceptance of the given production processes as relatively efficient (as in economic theory) or an inability to comprehend the production processes of converting inputs into outputs. Yet questioning the system to be analyzed is the *sine qua non* of good system analysis. As Charles Hitch states:

. . . . What distinguishes the useful and productive analyst is his ability to formulate (or design) the problem: to choose

* Procurement of Equipment and Missiles, Army.

appropriate objectives; to define the relevant, important environments or situations in which to test the alternatives; to judge the reliability of his cost and other data; and finally, and not least, his ingenuity in inventing new systems or alternatives to evaluate.* (Emphasis added.)

* Charles J. Hitch, *Decision-Making for Defense*, University of California Press, Berkeley and Los Angeles, 1965, p. 54.

APPENDIXTHE SOVIET AND PACT THREAT: AN OPERATIONAL ANALYSIS

A look at Soviet forces in Germany indicates that their division slice, adjusted to full complement U.S. maneuver platoon unit equivalents, is only 18,000, versus 43,500 for the United States. While these comparisons raise serious questions about the efficiency of the U.S. posture, an equally important question is: for what purpose have the Russians designed their force structure? Their military posture is consistent with maximum force visibility, intimidation and smothering of political opposition within the Eastern countries by massive intervention with line combat units, a short tactical nuclear war, and a road march into Western Europe against nothing more than token resistance. But the Soviet posture is not consistent with an offensive conventional *fighting* capability that would require exercising a logistical system.

High visibility is obtained in three ways: (1) buying combat strength at the expense of logistical support, (2) organizing into smaller units than their similarly termed Western counterparts at all levels, and (3) maintaining skeleton cadre divisions in the active force.

Another crucial question is: How are the Soviets able to operate so many divisions with such lean support? The answer is threefold: (1) the Soviets are more cost-conscious than NATO; (2) the Soviets have organized their forces differently from NATO; and (3) the Soviets have prepared themselves for only a short war. While critics have diagnosed the cost difference between Pact and NATO as the result of (1) above, the big savings result from differing assumptions leading to differences in force structure [(2) and (3)]. In the Pact-NATO comparison, the Soviets are assuming a short war based on shock power; NATO, a long war based on firepower. This contention on the Soviet posture is based on their strategic needs, military doctrine, and revealed military structure.