AIR UNIVERSITY review

MARCH-APRIL 1981

The Professional Journal of the United States Air Force

mirror imaging, Mahan, and Soviet air power

Russia, said Churchill in 1939, is "a riddle wrapped in a mystery inside an enigma." The accuracy of his observation still holds.

As products of an open society, we are congenitally ill-equipped to understand and evaluate closed societies; there are few societies more effectively closed than that of the Soviet Union. In the absence of concrete evidence to the contrary, we begin our analysis of such societies based on the only real societal model that most of us have—ourselves. Beginning with a look in the mirror, we assume that Soviet institutions perform generally the same functions as their presumed equivalents in the West and for the same reasons. Similarly, we tend to ascribe to Soviet leaders the basic motivations of our own, a process elevated to national policy in the late doctrine of mutual assured destruction.

At the level of national policy, this tendency to see the enemy as our own mirror image has come under increasingly effective attack. Our first two articles are eloquent testimony to this.

But what about military thought? What about air power in particular? Here, examination of our own assumptions is in order. Since we must use the mirror to some extent, it might be wise to examine ourselves—and the mirror—first.

First, ourselves: U.S. air power theory is arguably a linear extrapolation of Alfred Thayer Mahan's theory of sea power. Mahan's theory implicitly assumes the feasibility of sustained operations from secure bases; so does current air power theory. Do the Soviets make a similar assumption? If not, why not? And with what doctrinal implications? What, in turn, does that suggest concerning their ideas about first-strike vulnerability?

Then, the mirror: Here the reader is gently directed to our third article. If we hope to unwrap the riddle of Soviet air doctrine, we must begin with a careful examination of Soviet capabilities. But we must first take a careful, analytical look at the assumptions concerning our own capabilities against whose reflected image we measure them.

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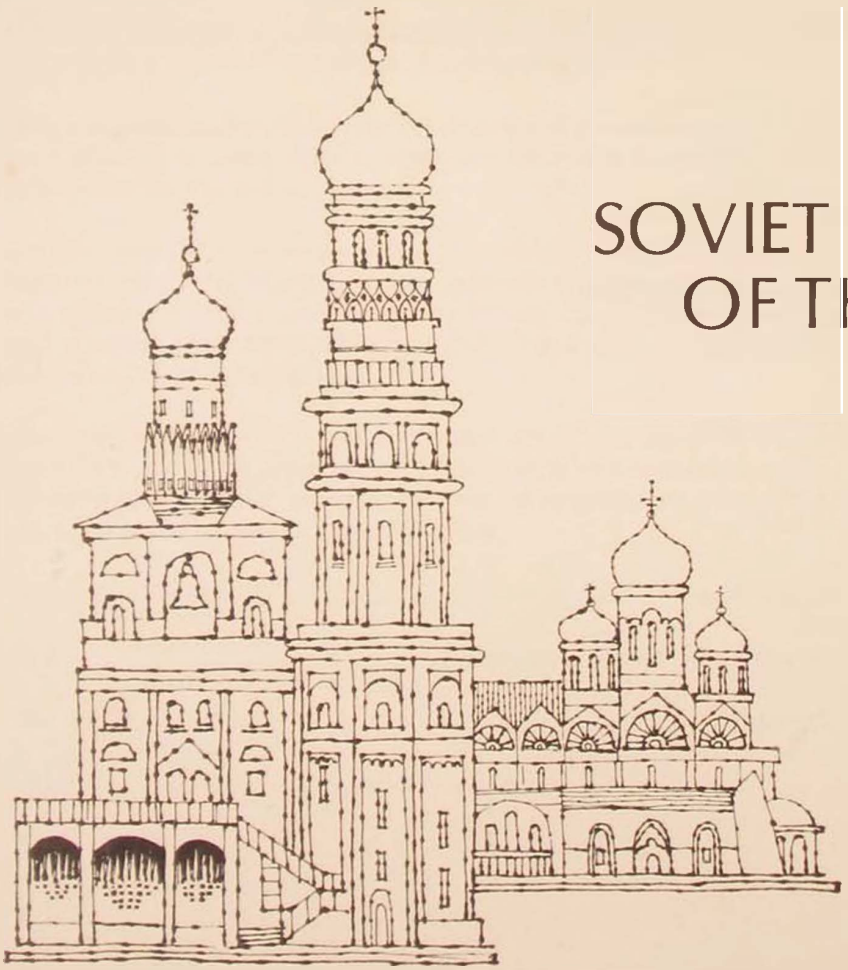
AIR UNIVERSITY
review
Vol. XXXII No. 2, January-February 1981

SALT I has come and gone, and SALT II is in limbo. As the United States entered SALT I negotiations, the common American assumption, challenged by only a few analysts of Soviet strategic doctrine, was that Soviet leaders held perceptions of the strategic balance similar in most respects to those held by American leaders. Mutual assured destruction (MAD), strategic parity, deterrence, and force stability were all concepts that were accepted equally in Washington and Moscow, it was assumed. However, as negotiations for SALT II progressed, the degree to which Washington and Moscow shared perceptions of the strategic balance became the subject of considerable debate. A new literature on the strategic balance has proliferated with, on the one hand, some analysts concluding that the Soviet Union has moved beyond those concepts it allegedly adopted for SALT I and is currently preparing to fight and win a nuclear war; and, on the other hand, some analysts positing that the assumption remains valid that American and Soviet perceptions of the strategic balance are nearly identical.



SOVIET PERCEPTIONS OF THE STRATEGIC BALANCE

DR. DANIEL S. PAPP

Obviously, among analysts of Soviet affairs, there is considerable disagreement over what the reality of Soviet perceptions of the strategic balance actually is. This disagreement may be attributed to a variety of factors, three of the most prominent being different attitudes expressed by Soviet leaders and in the Soviet media, perceptual biases for any of a number of reasons on the part of Western observers, and legitimate differences of opinion on how most accurately to interpret the diverse signals that the Soviet Union sends out about its views on the strategic balance. Thus there is room for disagreement, and it would be pretentious indeed to argue that one's own analysis of Soviet perceptions of the strategic balance is "the correct" interpretation. It may, nonetheless, be argued that those sources of data which provide us with most of our information about Soviet perceptions of the strategic balance—Soviet military writings, statements by diverse senior political and military leaders both in public and private, and strategic force procurement and deployment—contain within their internal contradictions a considerable degree of consistency which, to a great extent, has been overlooked by Western analysts. I will examine three areas of Soviet perceptions of the strategic balance—force capabilities, threat assessment, and employment doctrine—in an effort to delimit both contradictions and consistencies.

Strategic Policy Formulation in the Soviet Context

Before an analysis of Soviet perceptions of the strategic balance is undertaken, it is helpful to realize that Soviet leaders have sufficient grounds to view strategic issues in a manner significantly different from the way they are viewed in the West. As Dimitri Simes has pointed out, this implies that Soviet perceptions of "legitimate defense needs" and "equal security" may differ considerably from the U.S. view.[1] Historical experiences of the Russian and Soviet states, geopolitical realities with which current Soviet leaders must cope, ideological beliefs that legitimize both the Soviet state and its ongoing military buildup, national and elite psychological characteristics, and ecotechnical capabilities of the Soviet state have all been identified as factors that may influence Soviet leaders to adopt perceptions of strategic issues which differ from those of their American counterparts.

It is on the basis of these perceptions that Soviet strategic policy is formulated. Unfortunately, however, the closed nature of the Soviet decision-making process, particularly on matters related to national security, renders it difficult to gauge the impact of various perceptions on Soviet policy and, for that matter, to determine the perceptions themselves. This problem is to some degree offset by the fact that substantive discussions of strategic issues are limited to the military and senior levels of the political elite. Perhaps the best illustration of this point was the request by a senior Soviet military officer during SALT I negotiations that the American side refrain from discussing substantive numerical issues in the presence of Soviet political representatives to SALT since the political representatives were not privy to such information. Thus, while secrecy limits our access to, and consequently our understanding of, Soviet discussions of strategic issues, the small number (according to Western standards) of participants involved in such discussions enables analysts to scrutinize what information is available in considerable detail.[2] These considerations are further complicated by the fact that in the Soviet Union, as in the United States, policymaking elites speak to a variety of clientele for a variety of purposes.

Despite these difficulties, analysts of Soviet foreign and military policy in recent years

have identified perceptual differences within relevant Soviet elites and constructed plausible explanations for Soviet policies based on these perceptual differences.[3] On an issue-by-issue basis, their analysis has indicated that the influences of disparate groups within the Soviet elite vary widely. On strategic issues, it is likely that the influence of various groups similarly changes on an issue-by-issue basis. On major strategic issues such as threat assessment, force structure, and employment doctrine, we may speculate that the Soviet Defense Council, chaired by General Secretary Leonid I. Brezhnev and probably consisting of, at a minimum, Chairman of the Council of Ministers Aleksey Kosygin (before his "retirement"), Minister of Defense Dmitriy F. Ustinov, and one or two other members of the Party Politburo, has predominant influence if not control[4] with other bodies and individuals such as the Soviet General Staff, senior officers of the Strategic Rocket Forces and the Navy particularly, and upper-level officials in the various machine-building ministries also having some influence.

It also appears reasonably clear that those Soviet elites concerned with strategic issues define *strategic* somewhat differently from their American counterparts. In the United States, strategic issues have been interpreted, through a geographical accident, to apply to those issues that are intercontinental. This is not true of the Soviet conception of strategic issues, again in part because of geography. For the Soviet Union, "strategic concern begins at the doorstep."[5] This difference in conception, however, goes beyond geography and includes a much greater emphasis on political and economic affairs than do American discussions of strategic issues. Former Soviet Minister of Defense and Politburo member A. A. Grechko pointed to these distinctions in *The Armed Forces of the Soviet State*, saying that, in a military context, it was possible to distinguish between "overall strategic goals" and "particular strategic missions" and that strategy must rely on "a country's economic ability," "the conditions of a situation," and "the military-political situation."[6] Thus, when the Soviets discuss strategic issues, their conception is comprehensively defined and includes linkages to regional issues on the one hand and economic, political, and social issues on the other hand, which as we shall see is of considerable importance.

force capabilities: a Soviet assessment

Above all else, to most American observers, the strategic balance is a qualitative and quantitative measure in either static or dynamic terms of the relative intercontinental nuclear force capabilities of the United States and the Soviet Union. Although the interrelationships among delivery vehicles and multiple warheads with their various total throw-weights, yield-to-weight ratios, accuracy, and range are complex, few analysts today deny that relative to American capabilities the Soviet Union has substantially overcome, if not eliminated, the quantitative and qualitative inferiority that confronted it as recently as the signing of SALT I in 1972.[7] This improvement has led some American analysts to conclude that the Soviet Union is striving for strategic nuclear superiority and a first-strike capability.[8] Indeed, given the American proclivity for measuring strategic capabilities in terms of intercontinental nuclear capabilities, there is considerable room to support such sentiment, especially when other Soviet programs such as air defense and civil defense are taken into account and viewed in conjunction with certain Soviet technical developments such as the perfection of cold-launch capabilities. Only in numbers of strategic warheads has the United States increased its early 1970s lead over the Soviet Union; and

as the Soviets themselves move increasingly to MIRVed systems such as the SS-17, SS-18, and SS-19, it is feared that even this lead will be transitory.

From the American perspective, then, the Soviet perception of the force capabilities parameter of the strategic balance should be quite favorable and probably improving. As has been previously pointed out, however, Soviet perspectives and American perspectives on the strategic balance are likely to differ considerably. It should come as no surprise that this is true in the area of force capabilities.

From the viewpoint of the Kremlin, the contemporary strategic balance is based on the concepts of "equal security" and a refutation of efforts to achieve "one-sided advantages, directly or indirectly." During the years since SALT I was initiated, the Soviet Union has often and avidly avowed that its entire strategic doctrine and force posture have been based on these principles.[9]

For the Soviet Union, "strategic concern begins at the doorstep."

Unfortunately, however, the Kremlin has not clarified its concept of "equal security" or "one-sided advantage" other than to announce that "an approximate strategic balance between the two sides now exists."[10] Only rarely does the Soviet Union publicly reveal its own assessment of different quantitative and qualitative measures of the strategic balance. One of these occasions was in *Pravda* on February 5, 1977, when Georgi Arbatov, Director of the Institute of the U.S.A. and Canada, referred to U.S. quantitative superiority in bombers and warheads and Soviet superiority in throw-weight and numbers of missiles. However, Soviet quantitative and qualitative advances in strategic hardware are rationalized as necessitated by U.S. efforts to upset the existing balance and "deprive the Soviet Union of the opportunity to deliver an effective retaliatory strike."[11] Even though there has been no detailed public Soviet discussion of individual measures of the strategic balance, the Kremlin apparently believes that a rough parity of intercontinental nuclear forces exists despite the numerous disparities between national capabilities.

However, from the Soviet perspective, American insistence on measuring strategic capabilities on the basis of intercontinental nuclear forces is an effort to gain, in Soviet terminology, "one-sided advantage." One need merely recall recent American debates over whether the Soviet Tu-26 Backfire and the SS-20 are strategic or theater delivery systems to understand Soviet complaints that the United States is seeking "unilateral advantage" by refusing to include forward-based nuclear-capable tactical aircraft and carrier systems in strategic arms negotiations. This gray-area problem, only recently recognized by the United States, has long been a matter of serious concern for Soviet planners.[12] At the same time, however, as greater quantities of Backfires and SS-20s enter the Soviet arsenal, Soviet unease precipitated by the gray-area problem will inevitably lessen since technological upgrading of both these systems can give them intercontinental capabilities.

Alliance asymmetry presents yet another problem to Moscow when it assesses force capabilities. Soviet leaders have pointedly noted that the United States is not the only nuclear-capable country that has its weapons directed against the U.S.S.R.[13] Moscow is concerned with the nuclear capabilities of France and Great Britain and, especially in recent months, those of the People's Republic of China as well. While it is probable that the quantity of French and British

delivery systems is less than 150 per nation and the quantity of Chinese systems is less than 200, Soviet leaders nonetheless realize that 400-500 warheads *not* under American control are pointed at the U.S.S.R. This cannot be a comforting thought, particularly given the new intimacy between China and the Western alliance.

Soviet force capabilities are also adversely impacted by geographical location, particularly in the area of submarine-launched ballistic missiles (SLBMs). Soviet missile submarines are almost all attached to either the Northern Fleet or the Pacific Fleet. Those attached to the Northern Fleet must navigate the Greenland-Iceland-Faeroes-United Kingdom gap to arrive at suitable launch points, and those attached to the Pacific Fleet face similar chokepoint conditions. The major exception to this is the Petropavlosk-Kamchatskiy base, which serves as a major base for Soviet missile submarines and is in fact on open water. Additionally, only by great effort are ports in both sectors kept ice-free year-round. All of this, the Kremlin believes, detracts from Soviet SLBM force capabilities. To the Soviets, as they pointed out in a unilateral statement issued with the SALT I treaty, their quantitative SLBM superiority seemingly permitted under the accord was attributable to the U.S.S.R.'s geographic location.[14] Although the United States rejected the Soviet reasoning five days after it was issued, geographical asymmetry in Soviet eyes reduced a quantitative Soviet SLBM superiority to parity or even inferiority. These observations imply that Soviet emphasis on ICBM development at the expense of SLBM development may be as much geographically induced as technically induced.

On the technical side, it has been well documented, even in the public literature, that Soviet missile submarines are noisier and therefore more detectable than U.S. boats and have an approximate on-station time of 10 percent as compared to U.S. on-station time of 50 percent.[15] Recent U.S. breakthroughs in antisubmarine warfare may even increase Soviet SLBM vulnerability.[16] Thus, from the Soviet perspective, SLBMs may not be considered an invulnerable system.

Soviet emphasis on ICBM development may be explained both by the above-mentioned difficulties and by technical problems concerning miniaturization of components and low yield-to-weight ratios. Such problems could serve to explain large throw-weight boosters; Soviet proclivity for size is not sufficiently persuasive to explain them, since in recent Soviet tank and tactical aircraft construction, relatively small systems have been developed. However, it should be pointed out that as miniaturization and yield-to-weight problems are overcome, large throw-weight boosters will afford Soviet leaders with impressive MIRVing capabilities. Indeed, the SS-18 Mod 2 has been tested, and may be operational, with as many as eight MIRVs per booster.

. . . the Kremlin apparently believes that a rough parity of intercontinental nuclear forces exists despite the numerous disparities between national capabilities.

Despite these potentials for technical improvements, it may not be argued that Soviet leaders are comfortable with ongoing technical trends. American development of the cruise missile in particular has been cited by the Soviet media as an item that could frustrate "equal security."[17] With the United States pursuing force improvement programs

in a number of other areas as well, Soviet leaders may be as fearful of the United States reattaining clear-cut superior force capabilities as American leaders are of Soviet attainment of superior force capabilities.

None of the foregoing analysis should be interpreted as seeking to minimize the considerable improvement in Soviet force capabilities. Rather, it seeks to illustrate that, from the Soviet perspective, a sanguine assessment of current and future Soviet force capabilities may not be possible. This, then, may be a possible explanation for ongoing Soviet force improvements; at the very least, it casts doubt on the certainty exuded by those who maintain the Soviet Union is seeking strategic superiority and a first-strike capability.

threat assessment: the Soviet perception

Many American analysts consider the growth of Soviet nuclear force capabilities to be not only qualitatively and quantitatively significant but also view that growth as being sufficient at its present level to influence the Soviet leaders to reduce substantially their assessment of the "capitalist threat." To a degree, this has in fact happened. Brezhnev himself has argued that growing Soviet military strength has forced the United States to "face the truth" that it is "impossible to solve militarily the historical differences between socialism and capitalism."[18] A more recent *Kommunist* article declared that since "potential for direct application" of nuclear weapons has decreased because of rough strategic force equivalence, "recourse to talks is inevitable today."[19] Even Soviet military spokesmen concur with this political assessment. *Krasnaia Zvezda*, for example, has declared that "a nuclear strike is impossible without the risk of incurring a devastating retaliatory strike," while *Kommunist vooruzhennykh sil* has maintained that "the forces of peace [i.e., the Soviet Union, other socialist states, and to a lesser degree, national liberation movements] now have sufficient power to prevent the outbreak of a new world war."[20] In some Soviet quarters, then, including senior political and military personnel in policymaking or other influential positions, there appears to be a belief that the United States—and other potentially anti-Soviet nuclear capable powers, it should be added—is effectively deterred from an attack on the Soviet homeland by the present strategic balance.

Why, then, if the Soviet Union has improved its force capabilities and lowered its perception of the external threat, does the U.S.S.R. continue its military buildup, and most particularly nuclear buildup? The easy answer—which is not to say necessarily the *wrong* answer—is that, again, the Soviet leaders have consciously opted to seek strategic nuclear superiority and a potential war-winning capability. As we have already seen, from the Soviet perspective, current nuclear parity may be a transient phenomenon as the United States proceeds to upgrade its force capabilities; similarly, from the same viewpoint, the low current levels of threat assessment do not preclude increased future levels of potential threat. Thus, in each of the preceding examples, the Soviet spokesmen have cautioned that the danger of a nuclear war, while reduced, has not disappeared. As Soviet Minister of Defense Ustinov has asserted in one of his rare articles, Soviet nuclear might has "pushed back" but has "not eliminated" the threat of war.[21]

Soviet analysis of the American political process, of American force acquisition programs, and of American strategic doctrine all supports this viewpoint and further elucidates it by implying that the "American threat," while currently contained, may be revitalized. Each of these avenues of analysis is of sufficient importance to warrant individual discussion.

In recent years, Soviet assessments of the American political scene have become increasingly sophisticated. Proceeding from a Marxist-Leninist framework of analysis, which by definition identifies American political and military leaders as representatives of the bourgeois class, Soviet analysts have seen fit to categorize these representatives of the bourgeois as "realistic" or "unrealistic," depending on their attitudes toward Soviet-American relations, strategic arms limitations, and related international topics. To the Soviets, the "realistic" leaders are those who recognize the "objective reality" of expanded Soviet power and seek to negotiate with the U.S.S.R. rather than confront her. Richard Nixon, Gerald Ford, and to an uncertain degree Jimmy Carter have all been classified as "realists."[22] However, "unrealistic" leaders remain in prominent positions, Soviet analysts warn, and are once again expanding their influence at the expense of the "realists." "Unrealistic leaders" include Henry Jackson, John Connally, Ronald Reagan, and, more prominently, Paul Nitze, Richard Pipes, and the Committee on the Present Danger.

. . . Soviet leaders nonetheless realize that 400-500 warheads not under American control are pointed at the U.S.S.R.

This Soviet analysis has very real impact on Soviet assessments of the "American threat." Since "unrealistic" leaders again dominate the U.S. political process, then, from the Soviet point of view, that threat has again grown. Thus, the Kremlin undoubtedly feels that there is no room for complacency. (Again, from the Soviet viewpoint, Richard Nixon's conversion to "realism" is pointed to on occasion to illustrate that "unrealistic" U.S. leaders may reform. Clearly, this is the Soviet hope for the Reagan administration.)

Soviet interpretation of American force acquisition programs buttresses this viewpoint. While the U.S.S.R. apparently accepts tacitly that an unspecified level of U.S. strategic capability is required to provide the United States with "equal security," it is equally clear that the U.S.S.R. views both qualitative and quantitative improvements to that capability as efforts by the United States to achieve a "one-sided advantage." During the last three years, in particular, every ongoing U.S. strategic weapons program has been derided as a U.S. attempt once again to obtain a "position of strength over the Soviet Union."[23] Proposed programs, such as the multiple aims point (MAP) system or "shell game basing," have been similarly criticized.[24]

Perhaps of even more concern to Soviet strategists than the resurgence of "unrealistic" leaders or the continuation of U.S. force acquisition programs is the change in U.S. strategic doctrine from countervalue to counterforce targeting as set forth first by former Secretary of Defense James Schlesinger's "limited nuclear response options" concept and more recently updated by Jimmy Carter's Presidential Memorandum 59 (PM 59). Perceived in the United States as a method whereby a central nuclear exchange could be kept within limits in the event of a European conflict between NATO and the Warsaw Pact, PM 59 is viewed in Moscow as a means through which the United States could rationalize a first-strike doctrine. When viewed in conjunction with the M-X, Trident 2, Mark 12A, and even cruise missile programs, all of which stress great accuracy in warhead delivery, Soviet fears of a resurgent "American threat" including first-strike capabilities may be understandable.[25]

From the Kremlin's perspective, alleged American efforts to reacquire strategic superiority extend to strategic arms negotiations as well. On the one hand, the United States is seen as seeking to evade the terms of SALT I by qualitatively improving its forces and by opening "new channels" in the arms race, particularly the cruise missiles.[26] On the other hand, the United States is accused of structuring SALT II proposals so that it gains advantages. Thus, when former U.S. Secretary of State Cyrus Vance presented the so-called "Comprehensive Proposal" for SALT II to the Soviets during his March 1977 trip to Moscow, the Kremlin rejected it as too one-sided even to serve as a basis for future discussions.[27] From the Kremlin's perspective, the combined effect of the proposals to limit MIRV launchers to 1200, limit MIRVed ICBMs to 550, and permit only 6 ICBM or SLBM test flights per year appeared to channel the Soviet MIRV program into SLBM MIRV technology, an area in which, as we have seen, the Kremlin trails the United States, while at the same time limiting the U.S.S.R.'s ability to test the SLBM MIRV technology it would have been forced to develop.[28]

When analyzing possible Soviet views of threat assessment, one must also remember traditional Soviet fears, described by some as paranoia, of encirclement, surprise, and inferiority. To Soviet leaders, these are fears emanating from both ideological fundamentals and historical fact. While the impact of these fears on Soviet threat assessment is indeterminant, it must nonetheless be considerable. With the United States, Western Europe, China, and Japan in virtual alignment against the U.S.S.R.; with the United States adopting an apparent counterforce strategy; and with the United States continuing its effort to improve its force capabilities, it is reasonable to assume that encirclement, surprise, and inferiority are issues of some concern to the men in the Kremlin. All add to existent perceptions of external threat.

It is quite possible, then, that the Soviet leadership believes the "American threat" is real and growing. At the very least, there is considerable room to conclude that the Soviet assessment of the "American threat" is significantly greater than the American estimate of what that assessment should be.

Nuclear Deterrence and War Fighting: The Soviet Assessment

During the past several years in the United States, considerable debate has occurred concerning Soviet views of and attitudes toward nuclear war as a continuation of politics, the deterrent utility of nuclear weapons, mutual assured destruction, targeting practices, and strategic stability. These are all issues of critical importance to American and Soviet national security. Unfortunately, Soviet authorities in policymaking positions rarely offer detailed and definitive statements on any of these issues. There is, however, considerable material available about these issues from individuals in policy-influencing positions. Often, this material presents diametrically opposed viewpoints. It is consequently understandable that American assessments of the Soviet position on these issues vary widely. Indeed, as we shall see in our examination of each of these points, Soviet discussions of these points are almost as diversified as the American assessments of them.

nuclear war as a continuation of politics

The question of whether nuclear war is a continuation of politics is, to the Soviet Union, much more than a philosophical debate over the continued validity of a concept that Lenin borrowed, with some alterations, from Clausewitz. To Soviet leaders, the question has very definite and explicit policy

implications: If nuclear war is a continuation of politics, does it become an instrument of policy? Is it possible to survive a nuclear exchange? Is victory possible in the event of such an exchange?

Throughout the nuclear age, Soviet spokesmen have regularly maintained that the advent of nuclear weapons has not altered the fundamental Clausewitzian-Leninist dictum that war is a continuation of politics. While being careful to point out that Clausewitz's analysis was somewhat in error because he ignored the "fundamental class structures" of warfare, Soviet authors have consistently argued that even in the era of nuclear weapons, war—including nuclear war—has political meaning and is a continuation of politics.[29] Having answered that question, Soviet planners and strategists inevitably must address the follow-on questions of nuclear war as an instrument of policy, of the possibility of survival in a nuclear war, and the possibility of victory in a nuclear war. In their discussions of these questions, Soviet authorities offer contradictory arguments and conclusions which make it evident that, at least on the public level, none of these questions has been satisfactorily resolved.

The answer to the question of whether nuclear war is a viable instrument of policy depends to a great extent on the answer to the question of whether survival and even victory are possible in a nuclear war. Since the official Soviet line has been and is that the U.S.S.R. will never unleash a nuclear war, almost all public Soviet discussions proceed from the assumption that the Soviet Union is being attacked or has identified American preparations to launch an attack.[30] There is no consensus within the Soviet literature as to whether the Soviet Union could survive an American strike or whether a Soviet preemptive strike would be launched or effective if launched. This uncertainty has existed throughout the nuclear age and may be seen in the so-called Khrushchev-Malenkov disagreement of the 1950s, the Rybkin-Talenskii disagreement of the 1960s, and the civilian-military disagreement of the 1970s.[31] In the last instance, the civilian-military dichotomy is overstated, since there are individuals from both camps who support viewpoints expressed by representatives in the other. Nevertheless, it may be said that a significant number of military men state that the Soviet Union can survive and win a central nuclear war, while a significant number of civilians posit that nuclear war will by its very nature deny victory to either side. Thus, *Marxism-Leninism on War and the Army* speaks of "victory" in a nuclear war, *Kommunist vooruzhennykh sil* refers to the necessity of the Soviet state developing "the conditions and means of insuring victory," and *Krasnaia Zvezda* admits that nuclear war would be "the greatest misfortune," but "the mood of communists is far from one of futility and pessimism" about its outcome.[32] On the other hand,

. . . the Soviet leaders have consciously opted to seek strategic nuclear superiority and a potential war-winning capability.

Kommunist has argued that a new world war could "lead to the destruction of civilization," *SShA* has concluded that a U.S.-U.S.S.R. conflict could result in "fatal consequences for the entire world," and *Voprosy filosofii* warned that a nuclear war would "undermine the conditions of the existence of mankind."[33] It should be pointed out that *no* Soviet author has publicly argued that the United States could survive a central nuclear exchange.

Potential explanations for these obvious disagreements are several. Military spokes-

men, of course, have a greater institutionalized necessity to speak of victory in the event of war than do civilian spokesmen. At the same time, the inevitability of socialist victory is espoused by Marxism-Leninism, and those who maintain that victory is possible in nuclear war may simply be more ideologically doctrinaire. Even with these rationales, however, it is not possible to dismiss out of hand the argument that some influential Soviet spokesmen do, in fact, believe that a nuclear war is winnable.

With this as a background, we may now return to the question of whether the Soviet Union views nuclear war as a viable policy instrument. It should come as no surprise that those Soviet authorities who view nuclear war as leading to a possible victory generally answer the question affirmatively, while those who view it as leading to the end of mankind answer it negatively. There is yet another group of Soviet leaders, many of whom are Politburo members, who speak of the "disastrous nature," the "horrible disaster," and the "extreme destruction" of a nuclear war, while refraining from discussing either victory *or* the destruction of mankind. These same Politburo members, however, posit that "world capitalism" would be destroyed in a nuclear war. Thus, it may be safe to conclude that to these individuals, who either recently or currently included Brezhnev, Kosygin, Ustinov, Kirilenko, and Mazurov, nuclear war would seriously but perhaps not fatally impact the Soviet Union and without doubt lead to the demise of capitalism. This, in fact, may be one reason for the apparently large-scale Soviet civil defense program; if nuclear war can be survived, then it must be survived as well as possible. With this probable perception, may Soviet leaders consider nuclear war an instrument of policy? Even with civil defense and other defensive measures, Soviet leaders recognize that their country will inevitably suffer massive damage in a nuclear war. Although the U.S.S.R. may emerge from that war in a relatively better condition than the U.S., one must wonder whether the Soviet leaders would willingly and knowingly cause such damage to be inflicted on their country, even if a relative advantage is gained.

deterrent utility

With the Soviet assertion that the U.S.S.R. will not initiate a nuclear exchange and with the U.S.S.R.'s concomitant belief that the U.S. may, deterrence plays a central role in Soviet nuclear policy. All segments of official Soviet society concur that as Soviet nuclear strength has grown, the probability of a nuclear war being unleashed by the U.S. has receded. Soviet authors regularly assert that the threat of nuclear war has diminished because of Soviet military strength but that the threat will not disappear as long as capitalism continues to exist.

To the Soviet Union, then, nuclear forces prevent an American attack on the U.S.S.R. Their utility as a deterrent does not end there, however, since Soviet nuclear strength is also seen as deterring particularly U.S. actions directed against other areas and interests the Soviet Union favors. This second definition is a significant extension of the concept of deterrence and is a direct reflection of the broader Soviet perception of "strategic," which was discussed earlier. As Fritz Ermarth has observed, "the Soviet concept of deterrence has evolved . . . from primary emphasis on defensive themes of war prevention and protection of prior political gains to more emphasis on themes that include the protection of dynamic processes favoring Soviet international interests."[34] The result of this evolution gives a fundamental political utility to Soviet nuclear capabilities beyond the context of the U.S.-U.S.S.R. nuclear relationship, at least as far as the Soviets are concerned. It is of such significance to the Soviet leaders that a separate

section of this article will be devoted to it (see the following section). Unaccountably, most Western discussion of the strategic balance has ignored it.

mutual assured destruction

Western discussion has not, however, overlooked the Soviet attitude toward mutual assured destruction. Widely accepted in the United States as a fundamental basis of American strategic doctrine, mutual assured destruction has received considerable discussion in the Soviet literature as well. Once again, this literature presents a contradictory picture and has led American Kremlinologists to adopt diametrically opposed views as to the Soviet position on mutual assured destruction. Thus, Raymond Garthoff has concluded that Soviet leaders have a "new readiness" to accept mutual deterrence, while Leon Gouré maintains that Soviet spokesmen "consistently reject the US concept of mutual assured destruction," and Edward Warner argues that the Soviets have shown "no inclination to embrace the Western deterrence concept of assured destruction."[35] As Garthoff rightly points out, *Voyennaya mysl'* had numerous favorable references to mutual assured destruction during the late 1960s and 1970s, as did other Soviet journals such as *SShA*, which argued even if "an aggressor, [was] well prepared for attack" it had "no chance of surviving a retaliatory strike."[36] As Gouré and Warner rightly point out, speculation by other Soviet writers that the Soviet Union can survive and even win a central nuclear exchange by definition negates the concept of mutual assured destruction.

Neither position has substantial enough evidence to claim convincingly that the U.S.S.R. accepts or rejects mutual assured destruction. Given the fact that the debate continues within Soviet literature, it is probable that no final decision has been reached.

Even more fundamentally, one must ask, if the Soviet Union were to reject mutual assured destruction, what would replace it? Since the Soviets perceive a high level of threat originating from the United States, nuclear inferiority must be rejected as a possible alternative. Nuclear superiority is the logical replacement. Within the Soviet literature, military writers again seem to argue most often for nuclear superiority.[37] This is offset, however, by regular statements by the Soviet political elites that superiority is not a Soviet goal. Brezhnev himself specifically renounced superiority at Tula in January 1977 and again in Moscow in his speech at the 3 November 1977 anniversary of the Bolshevik Revolution. *Pravda* printed both speeches and reasserted on 11 February and 16 June 1978 that the U.S.S.R. does not seek nuclear superiority. Kosygin spoke at the 1978 Bolshevik Revolution anniversary celebrations and denied a Soviet desire for superiority. Again, as we have seen in the case of mutual assured destruction, there is contradictory evidence, although in this case, at least for now, more weight should perhaps be attached to the assertions of Brezhnev and Kosygin. Nevertheless, it should be stressed that superiority has different meanings to different people; what may appear to Brezhnev to be "approximate parity" and "equal security" may to others, and particularly non-Soviets, be superiority.

Put simply, the Soviet position on mutual assured destruction is ambiguous. Soviet rejection of inferiority is obvious, and denial of superiority is a matter of interpretation. At least in the area of targeting, it may be possible to reach more definitive answers.

targeting practice

Soviet writing and commentary on nuclear targeting is relatively unified and rarely presents the stark contradictions we have seen in other areas. This may in part be explained by

the fact that targeting discussions are generally undertaken only in military literature. Soviet targeting practice itself does not appear to be strictly counterforce or countervalue but rather takes on aspects of both, with military capabilities, economic centers, administrative sites, and transportation capabilities being regularly cited as primary targets. While it is reasonable to assume that Soviet planners have developed contingency plans to meet a wide range of possible nuclear exchange situations, they have not discussed them in the public literature.

The Soviet Union may have developed this "comprehensive targeting" concept because of the prevailing Soviet attitude that once a central nuclear war has begun, it cannot be fought within specific limits and will almost inevitably result in an all-out exchange. Thus, to the Kremlin, there is little sense in seeking to limit the scope of nuclear war. Indeed, as we have seen, the American limited nuclear options strategy, which seeks to provide the United States with a separate countervalue capability, was criticized by the Kremlin because, among other things, it made a nuclear exchange appear less devastating to society as a whole, and, therefore, more "thinkable" to military planners. At the same time, it must be realized that one of the most credible deterrents to a central nuclear war is the certainty that it cannot be limited; when the Soviets discuss comprehensive targeting, it may be an effort to heighten the credibility of their deterrent.

stability

There is little to indicate within the open Soviet literature that strategic stability is a conscious Soviet objective. Indeed, if one examines Soviet positions on threat assessment, military-technical progress, and evolution of history, it is almost necessary to conclude that the Soviet Union has rejected the idea that strategic stability is possible. Consequently, the U.S.S.R. has rejected its pursuit as an objective.

Soviet assessments of the "American threat," as we have seen, indicate that the "threat" is growing because of both political and military-technical reasons. Thus, the Kremlin feels, it must act to overcome this increased "threat." Soviet officials from both the military and civilian sectors concur in this assessment and regularly maintain that Soviet forces must be continuously modernized to meet the continuing and growing "threat."

. . . Soviet fears of a resurgent "American threat" including first-strike capabilities may be understandable.

While the viewpoint that the political threat from capitalism may increase is clearly ideologically derived (as well as, perhaps, historically derived), Soviet views on the military-technical necessity for high levels of vigilance and for continued military research, development, testing, and evaluation are grounded in a clear appreciation that technical progress cannot be reliably curtailed, even by measures such as SALT. For example, even after concluding the SALT I agreement, Brezhnev promised that the U.S.S.R. would forge ahead with new strategic nuclear weapons programs.[38] During the last seven years, the Soviet Union made good on Brezhnev's word. These Soviet programs, even during a time of alleged strategic stability, may be rendered more comprehensible by the fact that the U.S.S.R. well realized that the United States itself was proceeding with new nuclear weapons programs. Soviet authorities are cognizant that this "vicious circle of action and reaction

. . . inevitably leads to an arms race."[39] The Soviet fear, corresponding to a similar American perception, is that if the other side alone continues its efforts to improve its forces, it could achieve a military-technical breakthrough and obtain a significant military advantage.[40] Thus, to the Soviets, the "qualitative arms race" and "new channels" of nuclear weaponry are technological realities that preclude long-term stability.

The Political Utility of Nuclear Weapons

American analysis of the political utility of strategic nuclear capabilities is for the most part limited to their deterrent capability vis-à-vis a Soviet attack on the United States or, through linkage to the U.S. tactical nuclear arsenal, on Europe. American strategists rarely consider the utility of strategic nuclear weapons as an influence on national activities outside the immediate context of the American-Soviet nuclear relationship. At least in part, this is the result of the American view of strategic issues as intercontinental in scope and primarily concerned with military affairs. It is a narrow viewpoint and one which, to a great extent, influences United States leaders to ignore the wider perspective from which Soviet leaders view these issues.

To the Soviet leaders, both military and civilian, their attainment of nuclear parity with the United States marked the beginning of a new age, one in which the fundamental structure of international relations had been altered. Indeed, all Soviet authorities recognize the attainment of nuclear parity and, perhaps as important, the American recognition and acceptance of parity as one of the three major shifts in the "international correlation of forces" that has occurred in this century. This shift, in the Soviet view, was not caused solely by the fact that the Soviet Union had finally acquired, after almost thirty years of effort, a truly credible deterrent to a potential American first strike on the Soviet homeland. Such a view would merely have reflected the U.S. conception of strategic nuclear weapons as being the dominating factor only in the context of the Soviet-American nuclear relationships. Rather, the shift emanated from the fact that for the first time, because of nuclear parity, the United States was forced (from the Soviet viewpoint) to consider the Soviet position on all issues in the international arena and adjust its policies accordingly.

To be sure, this Soviet linkage of strategic nuclear capabilities to other international issues is not new. For example, during the early years of the American involvement in Vietnam, Soviet analysts of American global strategy implied that the United States was actively engaged in a worldwide counter-revolutionary campaign carried out under the protection of American nuclear supremacy.[41] The logical corollary of this argument was that that campaign would end when nuclear supremacy was eliminated. Indeed, from the Soviet perspective, this is what transpired. American inaction during the last days of the Republic of Vietnam, during conflicts in Angola and on the Horn of Africa, during the strife in Iran, and during the Nicaraguan revolution have been regularly and specifically attributed to the growth of Soviet military capabilities, particularly intercontinental nuclear forces. There can be little doubt, then, that the U.S.S.R. sees its strategic nuclear forces and the attainment of parity as being a significant factor, if not the dominant factor, in inhibiting U.S. global in-

Soviet rejection of inferiority is obvious, and denial of superiority is a matter of interpretation.

itiatives which may otherwise have been undertaken to arrest and reverse trends and events that the United States viewed as unfavorable to its interests.

. . . because of nuclear parity, the United States was forced . . . to consider the Soviet position on all issues in the international arena and adjust its policies accordingly.

Parity, in its political impact as seen from the Kremlin, not only inhibits American initiatives but permits Soviet initiatives to support trends and events which it deems "progressive." Shortly after the first Nixon-Brezhnev summit in 1972, *Pravda* exclaimed "the more powerful our Motherland becomes, the more opportunities it acquires to influence the course of world events in a direction favorable to the peoples."[42] This refrain has been echoed frequently since then and has been used to rationalize Soviet aid and support to the MPLA in Angola and the Dergue in Ethiopia, among other places.[43]

The political impact of nuclear capabilities is, then, in the Soviet view, considerable and may perhaps even supersede the impact of providing the Soviet Union with a credible deterrent against an American first strike. The attainment of nuclear parity in particular is seen as inhibiting the attainment of American foreign policy objectives even while it abets the attainment of Soviet foreign policy objectives. And it is in the light of these observations that the apparent internal Soviet disagreement over the question of the desirability of nuclear superiority may perhaps be best understood. With superiority, proponents of the position may argue, the political processes that parity enhances would be accelerated. Opponents, on the other hand, may argue that striving for superiority would bring a response from the United States in developing new weapon systems that would reverse the positive political processes recently begun. In either case, at the very least, the Soviet perspective on the political utility of nuclear weapons is that it is considerable and, as long as parity at worst is maintained, favorable to the U.S.S.R.

WHAT, then, may be concluded about Soviet perceptions of the strategic balance? Given the understanding that there are sufficient grounds to believe the Soviet and American leaders may view strategic issues from different points of departure, the following conclusions may be stated:

- Soviet leaders believe the current levels and capabilities of the respective nuclear arsenals are approximately equal; because of qualitative improvements and new weapon systems, they do not believe this situation will necessarily persist and do not accept Western viewpoints of "strategic stability" on a long-term basis.
- Soviet leaders believe that the "American threat" is increasing in both political and military-technical context.
- Soviet leaders do not want nuclear war; they believe that if one does occur, they must place the U.S.S.R. in a position where it could possibly survive and be victorious. There are no indications that they equate survival with victory. There is no consensus within the Soviet elite as to whether such a war could be survived or won.
- Because of the aforementioned lack of consensus, it is probable that there is an ongoing debate in Soviet policymaking circles concerning mutual assured destruction.
- The Soviet Union has adopted publicly a comprehensive targeting posture, although

it is reasonable to assume that other targeting postures also exist.

- Soviet leaders accept the concept of deterrence.
- Soviet leaders are cognizant of the political utility of nuclear weapons, and, with their broader conception of strategic issues, they believe that nuclear parity provides the U.S.S.R. with increased opportunities for global activism and at the same time dissuades the United States of similar initiatives. In Soviet eyes, strategic parity as it is defined in the United States is advantageous to Soviet global objectives.

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Notes

1. Dimitri K. Simes, "Détente, Russian-Style," *Foreign Policy*, Fall 1978, p. 48.

2. For further discussion of these points and for a discussion of the problems Soviet analysts of American strategic policy face, see Fritz W. Ermarth, "Contrasts in American and Soviet Strategic Thought," *International Security*, Fall 1978, pp. 141-43.

3. For a few of these examples, see David W. Paul, "Soviet Foreign Policy and the Invasion of Czechoslovakia: A Theory and a Case Study," *International Studies Quarterly*, June 1971, pp. 164-65; Vernon V. Aspaturian, "International Politics and Foreign Policy in the Soviet System," in Vernon V. Aspaturian, editor, *Process and Power in Soviet Foreign Policy* (Boston: Little, Brown, and Company, 1971), pp. 491-551; Wolfgang Leonhard, "The Domestic Politics of the New Soviet Foreign Policy," *Foreign Affairs*, October 1973, pp. 59-74; Samuel B. Payne, Jr., "The Soviet Debate on Strategic Arms Limitation: 1968-72," *Soviet Studies*, January 1975, pp. 27-45; Edward L. Warner III, *The Military in Contemporary Soviet Politics: An Institutional Analysis* (New York: Praeger, 1977), pp. 116-57; Daniel McGovern, "Socio-Economic 'Interest Groups' and the Formation of Soviet Foreign Policy," *American Economist*, Fall 1977, pp. 49-58; and Dina Spechler, "Elite Images and Soviet Foreign Policy," *Soviet Union*, vol. 5, no. 1, 1978, pp. 36-73.

4. The existence of the Soviet Defense Council was first specifically revealed by *Krasnaia Zvezda*, on April 7, 1976. It has since been formalized by the Brezhnev Constitution with the Supreme Soviet approving its composition.

5. Ermarth, pp. 146-47.

6. A. A. Grechko, *The Armed Forces of the Soviet State* (Moscow: Voenizdat, 1975), translated by the U.S. Air Force (Washington: Government Printing Office, 1977), pp. 279-81. See also N. A. Lomov, *Scientific-Technical Progress and the Revolution in Military Affairs* (Moscow: Voenizdat, 1973), translated by the U.S. Air Force (Washington: Government Printing Office, 1977), pp. 135-41.

7. See *The Military Balance 1978-1979* (London: International Institute for Strategic Studies, 1978); and John M. Collins, *American and Soviet Military Trends since the Cuban Missile Crisis* (Washington: Georgetown Center for Strategic and International Studies, 1978), pp. 75-124.

8. R. J. Rummel, "Will the Soviet Union Soon Have a First Strike Capability?" *Orbis*, Fall 1976, pp. 579-94; and Richard Pipes, "Why the Soviet Union Thinks It Could Fight and Win a Nuclear War," *Commentary*, July 1977, pp. 21-34.

9. See, for example, *Pravda*, January 19, 1977, February 23, 1977, and April 26, 1978.

10. *Pravda*, February 11, 1978, and *Krasnaia Zvezda*, September 15, 1978.

11. *Krasnaia Zvezda*, September 15, 1978. See also Grechko, p. 274.

12. For a discussion of Moscow's fears of these "tactical-strategic" forces, see M. A. Mil'shteyn and L. S. Semeyko, "The Limitation of Strategic Armaments: Problems and Perspectives," *SShA: Ekonomika, Politika, Ideologiia*, December 1974, pp. 6-12. For a more recent discussion of these concerns, see *Pravda*, February 11, 1978.

13. "Statement of the Soviet Side, May 17, 1972," in Mason Willrich and John B. Rhinelander, *SALT: The Moscow Agreement and Beyond* (New York: The Free Press, 1974), p. 307.

14. Ibid.

15. *New York Times*, October 29, 1977, p. 3.

16. See articles by Walter Pincus in *Washington Post*, January 1979.

17. For Soviet statements on the cruise missile, see *Krasnaia Zvezda*, April 21, 1977, and *Sovetskaia Rossiia*, June 1, 1977.

18. *Pravda*, January 31, 1974.

19. D. Proektor, "Socialism and International Security," *Kommunist*, May 1977, translated in Joint Publications Research Service 69251, pp. 141-42.

20. *Krasnaia Zvezda*, September 15, 1978; and V. Konovalov, "Leninist Ideas of the Defense of Socialism in Action," *Kommunist vooruzhennykh sil*, November 1975, pp. 9-22.

21. D. Ustinov, "On Guard of Revolutionary Achievements," *Kommunist vooruzhennykh sil*, November 1977, pp. 5-8.

22. KGB Chief Yuri Andropov, speaking in August 1978, intimated that President Carter fit into a category between "realists" and "unrealists." See *Soviet World Outlook*, August 1978, pp. 5-7.

23. For a few of the numerous examples, see *Pravda*, June 9, 1977, October 14, 1977, February 11, 1978, August 6, 1978, and October 31, 1978.

24. *Pravda*, July 16, 1978, July 23, 1978, and August 6, 1978.

25. For a typical Soviet response to the so-called "Schlesinger Doctrine," see M. A. Mil'shteyn and L. S. Semeiko, "The Problem of the Inadmissibility of a Nuclear Conflict," *SShA: Ekonomika, Politika, Ideologiia*, November 1974, pp. 3-12.

26. *Krasnaia Zvezda*, April 21, 1977; *Nedelya*, April 1977, *FBIS Daily Report (Soviet Union)*, April 15, 1977, p. AA2; and *Sovetskaia Rossiia*, June 1, 1977.

27. *Pravda*, April 14, 1977.

28. Center for Defense Information, *The Defense Monitor*, July 1977, p. 8.

29. See, for example, *Voyenno-Istoricheskiy Zhurnal*, April 1972, translated in Joint Publications Research Service (JPRS) 56087, p. 32; and Ye. Rybkin, "The Leninist Conception of Contemporary War," *Kommunist vooruzhennykh sil*, October 1973, translated in JPRS 60667, pp. 8-9. Even the statement that war has ceased to be a continuation of politics as it was defined in Clausewitz's time, which appeared in a recent edition of *Novaia i Noveishaia Istoriia*, may be interpreted as referring to the *applicability* of war as an instrument of policy (as Clausewitz maintained war *must* be) rather than to the fundamental relationship between war and politics. See N. I. Lebedev, "Great October and the USSR's Struggle for Disarmament at the Contemporary State," *Novaia i Noveishaia Istoriia*, March-April 1977, p. 9.

30. A significant exception is Admiral A. Gontayev, who has argued that the view that "surprise is mainly associated with an attack on us by an enemy" is incorrect. A. Gontayev, "Surprise as an Element of Naval Art," *Morskoi Sbornik*, March 1973, p. 30.

31. Herbert S. Dinerstein, *War and the Soviet Union* (Westport, Connecticut: Greenwood, 1976), pp. 70-132; and Warner, pp. 86-89, pp. 251-59.

32. *Marxism-Leninism on War and the Army* (Moscow: Progress, 1972), p. 30; Konovalov, pp. 9-22; and *Krasnaia Zvezda*, February 7, 1974.

33. Proektor, pp. 141-42; V. M. Berezhkov, "Basic Principles of Soviet-US Relations," *SShA: Ekonomika, Politika, Ideologiia*, April 1977, p. 1; and V. Dolgin, "Peaceful Coexistence and the Factors Contributing to Its Intensification and Development," *Voprosy filosofii*, January 1974, p. 64.

34. Ermarth, p. 145.

35. Raymond L. Garthoff, "Mutual Deterrence and Strategic Arms Limitation in Soviet Policy," *International Security*, Summer 1978, p. 143; Leon Goure et al., *The Role of Nuclear Forces in Current Soviet Strategy* (Miami: Center for Advanced International Studies, 1974), p. 35; and Warner, p. 149.

36. Berezhkov, pp. 8-9.

37. See, for example, *Sovetskaia Voennaia Entsiklopediia*, vol. 2 (Moscow: Voenizdat, 1976), p. 253; and M. Gladko and B. Ivanov, "The Economic and Military Technological Policy," *Kommunist vooruzhennykh sil*, May 1972, p. 12.

38. *Strategic Arms Limitation Agreements, Hearings before the Committee on Foreign Relations*, United States Senate, 92d Congress (Washington: Government Printing Office, 1972), p. 393.

39. Iu. Kostko, "Military Confrontation and the Problem of Peace in Europe," *Mirovaia Ekonomika i Mezhdunarodnyye Otnoshenia*, September 1972, p. 20.

40. For one Soviet statement of this fear, see G. Arbatov, *World Marxist Review*, February 1974, p. 61.

41. For various explicit and implicit references to this linkage, see E. Konovalov, "Military-Colonial Strategy of Imperialism," *Mezhdunarodnaia Zhizn'*, December 1965, pp. 39-48; V. Matveev, "Aggressive Actions of American Imperialism," *Kommunist*, June 1965, pp. 94-102; and A. Sovetov, "Aggressive Policy of American Imperialism," *Mezhdunarodnaia Zhizn'*, September 1965, pp. 85-89.

42. *Pravda*, July 23, 1972.

43. See, for example, *Izvestiia*, December 26, 1975, and January 10, 1976; and V. Pustov, "The Battle of Angola," *New Times*, February 1976, p. 8.

Democratic societies do very poorly in coping, philosophically, with the phenomenon of serious challenge and hostility to their values.

George F. Kennan, "Cease This Madness,"
The Atlantic, January 1981, p. 25

And there is the extraordinary difficulty a democratic society experiences in taking a balanced view of any other country that has acquired the image of a military and political enemy—the tendency, that is, to dehumanize that image, to oversimplify it, to ignore its complexities.

Ibid., p. 25

. . . we must learn to recognize the gravity of the social, environmental, and even spiritual problems that assail us all in this unreal world of the machine, the television screen, and the computer. We and our Marxist friends must work together in finding hopeful responses to these insidious and ultimately highly dangerous problems.

Ibid., p. 28

SOVIET MILITARY FORCES AND STRATEGY COME OF AGE

implications for American deterrence theory

ALAN J. VICK

A CENTRAL assumption commonly overlooked in the debate regarding the Strategic Arms Limitation Talks (SALT) process in general and SALT II in particular is the belief that some mix of pronounced strategy and acquired weapon systems offers an absolute deterrent to a nuclear attack by another country. That is to say, the United States does not procure weapon systems or design strategies in order to fight and win a nuclear war but to offer a deterrent to conventional aggression in Europe and a deterrent to the initiation of a general nuclear war. This wispy concept of deterrence has all too often assumed identical attitudes on the part of those nations involved.

United States nuclear strategy is profoundly dependent on a theory of deterrence that projects American values and notions of rational behavior onto the Soviet Politburo and General Staff Academy. While there may be some evidence to suggest that a degree of symmetry has existed at various times between the Soviet Politburo and the American presidential cabinet vis-à-vis perceptions of strategic stability, it is not clear

that Soviet military leadership has ever accepted "bourgeois" notions about warfare.

Given the increasingly important role of the Soviet military in policymaking since the death of Joseph Stalin and the enormous intellectual and economic resources committed to the development of military theory and power, the 1980s may see a dangerous shift in the Soviet propensity to use military means to realize foreign policy goals, be they ideologically or pragmatically motivated. These trends suggest an immediate need to study Soviet military thought in order to determine how valid previous perceptions of the "Soviet psych" are, to discover where we lack an understanding of Soviet thought, and, perhaps, to base future United States strategy—at least, in part—on an awareness of what constitutes a sound deterrent to the Soviets.

This article is offered as a brief review of the basic principles of Soviet strategy, its implications for U.S. deterrence theory, and some important trends in the role of the Soviet military in strategic decision-making.

Basic Principles of Soviet Strategy

Military science in the Soviet Union is viewed as a systematic typology that explains warfare based on the objective laws of war elucidated by V. I. Lenin.[1] Soviet military theorists—primarily faculty members of the Academy of the General Staff—have refined and expanded Lenin's writings, arriving at a thorough, comprehensive strategy that is impressive for the sheer magnitude of the endeavor in general and for occasional creative and brilliant thought in particular. It should be pointed out that Soviet military theory uses very precise words to express equally precise concepts. For example, *doctrine* is the military theory of the Communist Party as presented by the Politburo. Therefore, it has legal force and greater authority than military *strategy*. Military *strategy* as defined by Marshal V. D. Sokolovskiy in his award-winning work, *Soviet Military Strategy*, is

> . . . a system of scientific knowledge dealing with the laws of war as an armed conflict in the name of definite class interests. Strategy—on the basis of military experience, military and political conditions, economic and moral potential of the country, new means of combat, and the views and potential of the probable enemy—studies the conditions and the nature of future war, the methods for its preparation and conduct, the services of the armed forces and the foundations for the material and technical support and leadership of the war and armed forces.[2]

Through the systematic study of great battles, particularly those of the Great Patriotic War, Soviet military thought has focused on reducing warfare to a finite number of variables to be fitted into their strategic calculus. Although this may seem somewhat naïve to anyone acquainted with the utter confusion that can result in military operations of any size, the Soviets are not so unrealistic as some would suggest. Indeed, it is precisely because of their profound understanding of the dangers of misdirection, panic, and confusion among the troops that they seek to maintain such tight control. Yet, at the same time, centralization of command and control discourages initiative at lower levels, and if Soviet C^3 were substantially disrupted during war, it is not clear that company- and batallion-level leaders would act decisively.

In any case, Soviet military planners seek to control every variable of warfare through the emphasis of demanding continuous training of the troops, stressing mechanistic repetition, extreme centralization of command, redundancy in force structure, mass, and control of battlefield initiative through the use of continuous offensives.

The primacy of the offensive has been central to Soviet strategy and tactics since the Great Patriotic War.[3] Yet Soviet theorists no longer believe that concentration of ground forces is necessary to achieve the

breakthrough. They argue that dispersion is essential to prevent nuclear strikes from causing widespread losses. Thus, the offensive would take place along a wide front with multiple smaller concentrations of force and multiple breakthroughs realized through the use of nuclear or chemical weapons. The Soviets have not renounced concentration of force and firepower. They have, however, recognized that nuclear and chemical strikes will replace massed artillery and rocket attacks, reducing the number of troops necessary to effect the breakthrough.

While Soviet theorists have espoused such a strategy for years, they lacked the C^3, mobility, weapon systems, and deployment necessary to translate this strategy into battlefield action. Consequently, Western analysts viewed their strategy as so much wishful thinking. In the last decade, however, the Soviets have achieved a quantum improvement in all types of military forces and now appear capable of developing such a strategy on the battlefield.[4]

Thus, as Colonel Richard G. Head points out, we cannot always look to Soviet force structure to verify our conclusions with respect to their public pronouncements on strategy:

> Doctrine can . . . be forward-looking and to a degree inconsistent with current military capabilities. This was a problem in the 1960s, when some U.S. analysts had difficulty taking Soviet writings on land warfare seriously, particularly those parts that called for offensive breakthroughs and high-speed advances. Only in recent years . . . has the vision in their tactical doctrine been supported by technological capability.[5]

Surprise, the central element in the Soviet offensive, was not fully appreciated by Soviet strategists until 22 June 1941. On that day the German army made a highly successful blitzkrieg attack against the Soviet Union. The Soviets heeded this lesson, finding that surprise combined with sufficient mass breakthrough, and deep penetration of key enemy locations was an eminently effective tactic that prevented the enemy from shifting his forces in time to assist in the defense. Much to the dismay of the Germans, the Soviets, apt pupils always, displayed their keen understanding of surprise in the Volga counteroffensive of 1942 and later offensives following the battle of Stalingrad, most notably at Kursk. The development of nuclear weapons has only reinforced this appreciation of the element of surprise, and now Soviet military theorists argue that Lenin's comments in 1917 vis-à-vis surprise were the basis for the Soviet use of surprise during the Great Patriotic War.[6] One suspects, however, that German battlefield successes impressed Soviet strategists more than Lenin's trite observations on the element of surprise.

Associated with the importance of surprise in the offensive is the rapid exploitation of shock among surviving enemy troops. Nowhere is shock as critical an element as in the use of nuclear strikes. The shock wave alone causes a loss of self-control and orientation, and the soldier ". . . becomes either too feeble, indifferent, or immobile or, on the contrary, irritated, sensitive and easily swayed."[7] Penetrating radiation, which disrupts the functioning of the nervous system, and thermal radiation, which causes temporary and permanent blindness and burns, considerably degrade the combat effectiveness of enemy troops. Thus, after the first surprise nuclear strikes, victory pivots on taking ". . . advantage of confusion and panic among [the enemy's] troops decisively and rapidly."[8]

Soviet theorists view the psychological effect of nuclear weapons as extremely important and would capitalize on this by employing airborne shock troops to negate surviving resistance and then control destroyed areas. Yet they do not acknowledge the "psychopolitical" utility of nuclear weapons in crisis situations, believing rather that such weapons have a single purpose: the

destruction of aggressive imperialist powers.[9]

While these developments are not related to strategic nuclear exchanges per se, they do illustrate how seriously the Soviets pursue nuclear war-fighting capabilities. To the Soviets, sound strategy demands that they prepare for every contingency, unpleasant or not. Although nuclear war is no longer considered inevitable, neither is a significant conflict with "forces of imperialism" dismissed as improbable. Characteristically, Soviet military journals maintain that Soviet acquisition of enhanced nuclear war-fighting abilities contributes to peace while any American moves beyond mutual assured destruction (e.g., limited nuclear options) are presented as evidence of murderous intentions.

Although Soviet strategy stresses battle in a nuclear environment, the current balance of power suggests that, in the European theater, the Soviets might prefer to avoid first use of nuclear weapons.

Soviet strategic parity with the United States translates into a highly favorable ratio of power in the European theater. With overwhelming conventional and chemical warfare superiority and parity at the theater level also, the Soviets could be reasonably certain that if they restricted their forces to conventional weapons, NATO forces would face quite a dilemma (i.e., whether to risk a conventional defeat by refraining from escalation to the nuclear level or risk a general war by initiating the use of theater weapons). It is not clear, moreover, that the West German government would allow the use of theater nuclear weapons on their territory, where the risks of escalation would be smallest. On the other hand, the fact that we stand willing to escalate the conflict from conventional to theater nuclear to strategic nuclear at some undetermined point presents the Soviets with a significant problem if they wish to avoid crossing this threshold.[10]

Although many American analysts are skeptical of the utility of strategic superiority, Soviet planners appear to disagree, accepting instead something akin to one observer's belief that "strategic superiority translates into the ability to control a process of deliberate escalation in pursuit of acceptable terms for war termination."[11]

Somewhat ironically, this skepticism has been coupled with a growing concern among American analysts that the recently acquired mobility of Soviet forces will allow them to continue penetrating into areas of the globe that were formerly considered beyond their sphere. Some American strategists are concerned that Soviet dynamism in weapons research and development (R&D), procurement, strategy, and projection of power, when coupled with a fairly static state of affairs in U.S. strategic development, signals a dangerous trend.[12] European perceptions about the U.S.-Soviet balance of power, moreover, could easily turn Soviet pronouncements on the shifting correlation of forces into self-fulfilling prophesies. Thus, American planners must be just as sensitive to world perceptions of power as they are to the actual ability to project such power.[13]

Indeed, this is a fundamental problem for U.S. planners: should weapons procurement be based on some yardstick for finite deterrence or go beyond this, seeking to enhance U.S. options during an actual conflict? Given the stated improvements in Soviet strategy and forces, it appears that, while assured destruction is a useful starting point for U.S. strategy and weapons development, the Soviets might be more impressed by a selective "war-fighting" deterrent. Admittedly, the linking of "victory" and "spasm war" may be a contradiction in terms, and the death and destruction resultant from even a limited nuclear conflict would be staggering, certainly unprecedented for the United States. Nevertheless, a more selective strategy of victory—if combined with refinements in theater and strategic nuclear weapons and

force structures—could improve the credibility of the U.S. deterrent without appearing provocative to the Soviets. Such improvements would make it quite difficult for even a "clever briefer" to convince the Soviet Politburo that they could initiate a nuclear conflict with a high probability of success.[14]

Impressive forces are admittedly no guarantee that our deterrent will not be challenged. If a challenge is presented, however, forces designed to meet such demands will offer a much more efficacious countervailing force than those designed to meet the requirements of this abstract notion of a "yardstick" for deterrence.[15]

Many American analysts are also beginning to wonder how valid our perceptions are with respect to Soviet values.[16] One high-level observer suggested that since 1880 the Russian leadership has systematically chosen military development over economic, political, or cultural development. That is to say, they respect force and have sought to become a global military power in lieu of a global economic power.[17] In legalistic and democratic America this preoccupation with force may be difficult to comprehend. Yet, it should be pointed out that

> a constant in Russian history has been, for most of her people, an existence on the edge of terror; it is a culture created by frequent chaos, the extreme tensions caused by stifling government controls, and the desire to survive. The Russians have lived with hunger, violence, unimaginable deprivations, the ever-present fear of secret police, exile to labor camps, and torture—these have become a way of life to the Soviet citizen whether under the Czar or Marxism-Leninism. . . . Experiences such as these have produced a view of the world that cannot be perceived with any degree of confidence using American attitudes and experiences.[18]

The Soviet infatuation with military power suggests they do not view diplomatic, political, and military operations in a hierarchical fashion (i.e., diplomatic pressure; that failing, covert action; that failing, military operations). Rather, they consider all as equally viable, if not equally efficient, options. While this all points toward Soviet use of military power, the Soviets themselves deny being Clausewitzian[19] and carefully qualify their emphasis on the offensive by claiming that the Soviet Union has never attacked anyone and would use the offensive *only after aggression by an imperialist power*.[20] Yet, the definition of aggression is up to the Soviet leadership, and one can count on their reaction being decisive, developing with great speed, for they believe that the encirclement and destruction of the enemy ". . . are a simultaneous act, a united and indissoluble process, accomplished without any pause."[21] NATO leaders, therefore, can expect little time to deliberate over whether to cross the nuclear threshold.

While current Soviet doctrine stresses high intensity battle through surprise, superiority in firepower, speed/high maneuverability, and continuity of operations (all weather, 24 hours a day) with projected rates of advance of 100 kilometers per day under nuclear conditions, American planners should not be lulled into thinking the Soviets will easily "burn out." Although their logistical organization and doctrine indicate an interest, and perhaps preference, in fighting a short intense war, their planning is not so inflexible that it could not be modified to support a long-term conflict on short notice.[22]

This brief discussion of Soviet strategy has touched on a few of the most basic principles of Soviet military thought. It is hoped that the reader will be struck by the asymmetries in Soviet and American strategic thought and that he will appreciate the problems this dichotomy presents for strategic arms control negotiations. Although these differences do not rule out bilateral negotiations, they do suggest that one ought to tread with great care when attempting to draw parallels between Soviet and American values and strategic thinking. Such differences have often been glossed over in the admirable

desire to find areas of agreement. This is unfortunate, for quasi-friendly relations based on misunderstanding offer greater potential for misreading signals and crisis *mis*management than cool relations based on an understanding of our differences.

The Soviet Military: Its Contribution to Strategic Debate and Theory

For more than thirty years, from 1922 until his death in 1953, Soviet military strategy was the product of one man, Joseph Stalin. Not surprisingly, this was a period of stagnation for Soviet military thought. Stalin would not allow the military to participate in the development of strategy during this period, and little of value was published in their journals.[23] Yet Stalin was not satisfied with these restrictions on military thought, and his fear and suspicions of the military were manifested in the purges of the 1930s, when three-fourths of the Soviet general officer corps were murdered.[24] Thus, in an intellectual sense, Stalin did more harm to the Soviet armed forces than all the forces of Nazi Germany could do. In fact, the Germans provided quite an education for Soviet strategists, while Stalin provided little guidance for Soviet strategy. His truistic "Five Principles of Victory" are indicative of the quality of his strategic thinking.[25]

Within three years of Stalin's death, the Soviet military would begin its recovery from the intellectually barren years under his rule. It was at the 20th Congress of the Communist Party in 1956 that Soviet military thought was reborn. With Khrushchev's denunciation of Stalin at the Congress came new freedom for the military. Military history departments at the academies came alive, and the subjects of military science and strategy became the object of increased discussion and debate.[26]

By 1960, the trend of relatively open discussion of strategic issues was clearly established with a Special Collection of Articles becoming a regular feature in the classified journal, *Military Thought*. These articles were written by the Minister of Defense, military district commanders, commanders of the academies, and other members of the military elite. This high-level support for the discussion of important military policy issues would continue through the sixties, with top military men offering some of the most daring criticism of party policy.[27]

In 1965 the Soviet press announced the publication, by Voyenizdat, of the Officer's Library, which would include seventeen different works. All seventeen volumes were published and widely distributed by 1973, with topics ranging from Marshal V. D. Sokolovskiy's *Soviet Military Strategy* to B. Byely's *Marxism-Leninism on War and Army*.

Khrushchev did usher in a new era for Soviet military leaders as important contributors to military strategy. He, nevertheless, maintained firm control of doctrine in party hands. The military was unable to convince him to shift to a serious doctrine of victory, although he did initiate a massive buildup in the strategic forces. In any event, once he was removed from power, considerable criticism from the military was directed at his military policies.

The Soviet shift in the mid-sixties to the nuclear strategy of survival/victory appears to be a function of a new-found clout of the military, combined with serious questions offered by the Politburo about the viability of deterrence. Soviet leaders of this period probably would have agreed with one American observer who recently stated that "it ought to be clear to all of us that deterrence—really a form of applied psychology—is historically, psychologically, and politically naïve to a dangerous degree, our confidence in it quite unwarranted."[28] In any case, the unilateral ability to fight, survive, and win any type of war seems to have been a much more Rus-

sian doctrine than dependence on mutual hostage holding.

Beyond pragmatic reasons, Marxist-Leninist ideology encourages the Soviets to believe in a doctrine of survival and victory. If they did not believe this, it ". . . would mean that the most basic processes of history, on which Soviet ideology and political legitimacy are founded, could be derailed by the technological works of man and the caprice of an historically doomed opponent."[29]

The first public criticism of Khrushchev's doctrine of "single variant" came in 1965 from Marshal M. V. Zakharov, who offered an interesting critique of armchair military experts, namely Khrushchev. This sentiment was echoed by Marshal Sokolovskiy, who emphasized the need for military, rather than party, control of strategy. Also, in 1965 Colonel E. Rybkin, in an article in *Kommunist vooruzhennykh sil (Communist of the Armed Forces)*, presented the case for nuclear war, initiating the debate over definitions of strategic superiority and the need thereof.[30]

On the question of superiority, its meaning underwent a dramatic change from its early use by Marshal Sokolovskiy and General Major M. Cherednichenko. They had used it to mean maximizing destruction of an adversary and limiting damage to the motherland, but in a defensive sense. Later, Colonel V. Bondarenko would use it to mean "quantity and quality" of forces, which would imply that victory was highly probable in a more ambitious *and* ominous way.

The debate was most intense during the spring and summer of 1965, with the Politburo supporting "sufficiency" and the military leadership advocating superiority as a more appropriate goal. Clearly, the military was no longer the voiceless tool of the party. Indeed, the 1965 debate over strategy apparently went to the military, for Soviet weapon procurement and strategic thought since then suggest a flexible strategy that can initiate or respond to nuclear warfare at many levels of violence. The Soviet military leadership has apparently maintained its independence from the party, for in an August 1969 article in *Sovetskaya Rossiya (Soviet Russia)*, Marshal N. I. Krylov, commander in chief of the Strategic Missile Forces, admonished Soviet leaders not to grow complacent as they enjoyed this new position of world power. Marshal Krylov suggested that Soviet weapon procurement continue so that there would be little doubt of their ability to match U.S. strategic forces.[31]

THE Soviet military organization of 1980 is far superior—by any standards whether they be training, quantity and quality of equipment, force structure, strategy, manpower, deployment, or the ability to fight a sustained battle—to any Soviet armed force that ever existed. No longer just a continental power, the Soviet Union can project its military power to many areas of the globe. Not only do Soviet mobility capabilities suggest this, but their doctrine has endorsed such actions since Marshal A. A. Grechko's statement in 1974 that the Soviet Union would react militarily to "imperialists' aggression in whatever distant region of our planet it may appear." Thus, such challenges appear to be a singularly distinct possibility in the near future.[32] Its air force, strategic missile force, and navy can deliver nuclear warheads to targets anywhere in the world, in numbers that could cause unprecedented death and destruction. Its navy, while of limited value in protecting Soviet shipping, could disrupt Western shipping throughout the world and thus deny NATO forces vital reinforcements, materiel, and oil.

This historically unique development of military power has created a staggering drain on the Soviet economy and, thereby, on every Soviet citizen. While it remains to be seen if

the Soviet leadership intends to take direct advantage of the new strategic balance, it is not alarmist to predict that some challenges will arise. In part, these may be essentially harmless probes to justify Soviet defense expenditures (i.e., to illustrate the constant threat to socialist states exhibited by Western adventurism and demonstrate their ability to decisively protect worldwide class interests). More serious challenges may result if the Soviet military convinces the conservative party leaders to probe Western defenses in order to test "imperialist" resolve, study responses and capabilities, or dull Western sensitivity to Soviet activities before a more substantial blow (i.e., increasing the international background noise—false alarms to some extent). If Brezhnev dies in the immediate future, moreover, we can expect to see some drop in the mean age of the Politburo and conceivably less conservative attitudes toward international risk taking.[33]

Whatever the rationale for an enlarged military sphere of responsibility, it is essential that Western analysts appreciate this key point: Soviet military leaders do not accept academic theories of deterrence presented by American civilians. They are, however, impressed by high-quality military forces combined with the political wherewithal to use them. Thus, given first-rate Soviet military forces and strategy and increased political power for the military elite, a reasonable American response would be to procure weapons and develop strategies designed to meet military requirements for retaliation at sub-SIOP and single integrated operational plan (SIOP) levels. Such an approach would not only make a Soviet first-strike less likely but, in the event deterrence fails, would enhance intrawar deterrence, enabling the United States to prosecute and terminate the war below the SIOP level.

This is not to say that such forces and strategies will deter all types of Soviet behavior which we find offensive. Perhaps, in a given crisis situation, no combination of U.S. military forces, diplomacy, and "shots across the bow" will deter the ultimate conflict with the Soviets. Yet in such a situation where deterrence fails, forces and strategies that are designed to fight and win a war will be eminently more useful than weapons selected for their "psychopolitical" value in American deterrence theory.

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Notes

1. Military science holds an eminent position as an academic discipline in military education in the Soviet Union. Soviet military academy cadets and professors, unlike their counterparts in the United States, do not feel they must apologize for their study of this subject, nor are they considered intellectual lightweights among scholars. See Colonel Richard G. Head, USAF, "Soviet Military Education: Technical, Tactical, Traditional," *Air University Review*, November-December 1978, pp. 45-57.

2. V. D. Sokolovskiy, editor, *Soviet Military Strategy*, translated by Harriet F. Scott (New York: Crane, Russak, 1975), p. 11.

3. See A. A. Sidorenko, *The Offensive* (Moscow, 1970), translated and published by the USAF (Washington: Government Printing Office, 1976).

4. See Jeffrey Record, *Sizing Up the Soviet Army* (Washington: Brookings Institution, 1975).

5. Colonel Richard G. Head, USAF, "Technology and the Military Balance," *Foreign Affairs*, April 1978, p. 548.

6. V. Ye. Savkin, *The Basic Principles of Operational Art and Tactics* (Moscow, 1972), translated and published by the USAF (Washington: Government Printing Office, 1974), pp. 230-40.

7. V. V. Shelyag et al., editors, *Military Psychology* (Moscow, 1972), published by the USAF (Washington: Government Printing Office, 1976), pp. 361-62.

8. Savkin, p. 234.

9. See Benjamin S. Lambeth, *The Political Potential of Equivalence: The View from Moscow and Europe* (Santa Monica, California: The Rand Corporation, 1978).

10. Bernard Brodie, *Escalation and the Nuclear Option* (Princeton, New Jersey: Princeton University Press, 1966), pp. 28-29.

11. Colin S. Gray, "The Strategic Forces Triad: End of the Road?" *Foreign Affairs*, July 1978, p. 774.

12. Interview with Colonel Richard G. Head, USAF, Crisis Planning and Assessment Group, J-5, Joint Chiefs of Staff, U.S. Department of Defense, 9 May 1979.

13. See Fritz W. Ermarth, "Contrasts in American and Soviet

Strategic Thought," *International Security*, Fall 1978, pp. 138-55.

14. For a persuasive, tightly reasoned argument in favor of a strategy of victory, see Colin S. Gray, "Nuclear Strategy: The Case for a Theory of Victory," *International Security*, Summer 1979, pp. 54-87.

15. While the destruction of 200 major Soviet cities and 70 percent of her critical industry is hardly something for Soviet analysts to scoff at, it is not clear that potential economic devastation is the most effective deterrent to Soviet aggression. Thus, while procurement of the M-X, for example, might appear to an American analyst as an unnecessary addition to already extensive U.S. nuclear capabilities, it may significantly improve the credibility of the American deterrent in the eyes of a Soviet strategist.

16. For a fascinating discussion of Soviet life and attitudes, see Hedrick Smith, *The Russians* (New York: Quadrangle/The New York Times Book Co., 1975).

17. See Robert Legvold, "The Nature of Soviet Power," *Foreign Affairs*, October 1977, pp. 49-71.

18. Colonel William M. Charles, Jr., USAF, "Rethinking the Unthinkable: Limited Strategic Nuclear Options—Credible or Dangerous?" *Air University Review*, May-June 1977, p. 65.

19. Such a disclaimer is hardly persuasive, for Lenin was Clausewitzian and Soviet military strategy is founded on his observations on warfare. See B. Byely et al., *Marxism-Leninism on War and Army* (Moscow, 1972) and Lieutenant Colonel Alan C. Gropman, USAF, "The Beacon of Clausewitz," *Strategic Review*, Summer 1978, pp. 88-91.

20. Sidorenko, p. 3.

21. Ibid., p. 37.

22. Office of the Assistant Chief of Staff for Intelligence, *Understanding Soviet Military Developments* (Washington: Department of the Army, 1977), p. 23.

23. Harriet F. Scott, p. xxvii.

24. Ibid., p. xxv.

25. Record, pp. 2-4.

26. Scott, p. xix.

27. Ibid., p. xx.

28. James A. Stegenga, "Deterrence: Reckless Prudence," *Air University Review*, January-February 1977, p. 81.

29. Ermarth, p. 144.

30. John Erickson, "Soviet Military Power," Special Supplement to *Strategic Review*, Spring 1973, pp. 1-3.

31. Ibid., p. 39.

32. Harriet F. Scott and William F. Scott, *The Armed Forces of the U.S.S.R.* (Boulder, Colorado: Westview Press, 1979), p. 57.

33. See Rein Taagepera and Robert Chapman, "A Note on the Aging of the Politburo," *Soviet Studies*, April 1977, pp. 296-305.

A CLOSE relationship exists between the factors that influence the size and those that determine the composition of a nation's armed forces. Simply put, a nation develops a strategy to overcome an impediment to its national objectives or restrain a perceived threat to its security. In turn, the strategy results in decisions that include the men, money, and materiel necessary to carry it out.

Obviously, weapon systems and the level of war-fighting capability go hand in hand. What is not always so obvious, except to experienced military analysts, is that the way a nation fights is largely determined by the weapons it possesses. This observation is pertinent today because the Soviet Union and the United States are competing extensively within a

THE MODERNIZATION OF SOVIET FRONTAL AVIATION

What does it mean?

LIEUTENANT COLONEL HIRAM HALE BURR, JR

wide range of weapon systems. The Soviets seem to have made real progress in attaining a force structure that reflects their stated strategy.

The purpose of this article is to examine one aspect of recent Soviet weapons activity, the modernization of their Frontal Aviation (FA) force structure.*

the Frontal Aviation threat

The current Soviet Frontal Aviation posture did not emerge overnight. Rather, Soviet tactical air power is the result of an intensive and methodical building program. Frontal Aviation has remained the largest command in the Soviet Air Force since the later days of World War II. Nonetheless, its numerical strength has fluctuated greatly, depending on emphasis placed on other commands at various times. In the early 1950s, FA possessed about 12,000 aircraft; in recent years, between 4000 and 5000.[1] This force is currently deployed as 16 tactical air armies, four in eastern Europe and one in each of the 12 military districts of the Soviet Union.[2] Air armies usually consist of from three to four air divisions, the basic operational unit. Each air division has three regiments composed of several fighter squadrons and an air logistic support unit comprising a transport squadron and a communications flight.[3]

While the numbers of aircraft have decreased, FA combat effectiveness has not. According to the *FY 1980 U.S. Military Posture:* "Most of Soviet Frontal Aviation fighters and fighter-bomber forces have been fielded since 1970. These aircraft have a greater radius of action, and improved avionics and support systems, ordnance, reconnaissance sensors and electronic countermeasures capability."[4]

In the 1970s the offensive capabilities of Soviet Frontal Aviation steadily improved, due to the introduction of modern multirole fighters and fighter-bombers such as the Fencer, Fitter C, and Flogger. According to *Soviet Aerospace Handbook*, "Frontal Aviation has more than 4,500 combat aircraft, some 150 transport aircraft and 2,900 helicopters in its inventory."[5]

The qualitative improvements in the latest Soviet fighters may be far more important than the numerical advantage they enjoy over NATO forces. The technological inferiority of earlier generation Soviet fighters has largely been overcome. For example, automatic navigation and attack systems, laser range finders and target seekers, electronic countermeasures (ECM), and other advances in technology are incorporated in the Su-19 Fencer, MiG-23/27 Flogger, and the Su-17 Fitter.[6]

There has also been a significant shift in orientation toward Frontal Aviation over the last ten years, characterized by an accelerating trend from a preponderance of air defense interceptors to multimission-capable fighters with greatly increased combat ranges and payloads. In essence, then, the FA forces have shifted to a role of offensive combat.

In addition to modern fighters, FA possesses about 3000 helicopters. The most important is the Mi-24 Hind which can be used as a gunship or for transporting combat-equipped troops. The Hind has a large-caliber machine gun, Swatter antitank missiles, general purpose bombs, and 57-mm rocket pods to fill both close air support and antiarmor attack roles.[7]

Soviet doctrine on tactical air power employment

After two decades of emphasis on air defense, FA priorities have returned to the role they

*The Soviet Air Force consists of three separate components: Frontal Aviation, Long-Range Aviation, and Military-Transport Aviation. Its primary mission of Frontal Aviation is to provide tactical air support to ground forces, secondary mission to provide support for strategic air defense. (*Soviet Aerospace Handbook*, pp. 37, 38.)

played in World War II. This was highlighted in 1972 by Chief Marshal of Aviation P. S. Kutakhov, Commander-in-Chief of the Soviet Air Force. Describing the Soviet World War II "theory of air operations," Kutakhov emphasized the role of the General Headquarters of the Supreme High Command in planning and controlling air operations. In addition, he pointed out that frontal air armies were employed in "air operations to destroy (or weaken) enemy air groupings, the destruction and disruption of the work of enemy lines of communications and in escorting long-range bombers to destroy military-industrial installations in the enemy's deep rear."[8]

Another author claims that the use of FA in Soviet theater warfare doctrine is actually "a reversion to the doctrine of the offensive use of airpower developed in the mid-1930s."[9] This shift of emphasis from air defense to ground attack has resulted in "the primary objective of FA aircraft in Europe is to reduce the sortie rate of US/NATO aircraft."[10] This goes a long way toward explaining the shift in performance characteristics of first-generation Soviet jets such as the MiG-15/17/19 and third-generation fighters, e.g., MiG-21/23/27, and Su-17/19.

According to other Western analysts,

> the primary role of Soviet Frontal Aviation will be the non-nuclear destruction of targets located behind enemy lines, with a secondary emphasis on the isolation of the NATO front-line forces. At the onset of battle, Soviet fighter aircraft . . . would be assigned missions to penetrate NATO airspace, along with fighter bombers, . . . in order to insure aerial superiority over the entire battle area, thereby providing the conditions necessary for interdiction missions against military and industrial targets in Western Europe, especially airfields and logistic structures, supply lines and command posts.[11]

With the modernization program that has been under way since 1970, the FA third-generation tactical fighters are now capable of carrying out the above mission objectives.

words and deeds

A clear trend can be shown to exist between Soviet doctrinal statements and their quest to modernize their Frontal Aviation forces. Whereas in the recent past the Soviets could not adequately support their strategy, they have now arrived at a point where their tactical weapon systems are probably capable of fighting in the manner and method long described in theoretical writings.

The Soviets have undertaken a steady and continuous modernization of their Frontal Aviation forces in which aircraft design changes are more evolutionary than revolutionary. The "fly before buy" concept, where aircraft are developed and extensively tested before being put into production, is prevalent in the U.S.S.R. In fact, modernization and enhancement of proven aircraft constitute the norm.[12] The best example is the MiG-21 Fishbed which has been modified so much that models J/K/L/N compose the largest component of their tactical air forces (although the MiG-23 Flogger B/D is fast becoming the backbone of the FA fighter force structure).

It is hard to overstate the impact of real improvement in capability that this Soviet modernization of Frontal Aviation will have on NATO. Although some analysts have hastened to point out the vulnerabilities and problems faced by the Soviet Air Force (such as inferior avionics and pilot training and low flying time), it must be realized that these deficiencies can be corrected in a relatively short time. Once the Soviets have acquired technologically advanced equipment and weapon systems, it would be naïve to expect that they will not learn to employ them effectively. Historically, improvements in weapons have preceded the development of appropriate tactics and optimal employment methods.

projected developments

The course that Frontal Aviation will take in

Just as the German Ju-87 Stuka dive bomber had to be withdrawn from the Battle of Britain because of excessive losses,[16] we must acknowledge the possibility that the A-10 and other aircraft performing close air support could suffer a similar fate in a NATO/Warsaw Pact conflict. As is well known, the Soviet armies have a formidable ground-based organic air defense system. Instead of attacking Soviet tanks head-on, the A-10 and other fighters may be better employed against the flanks of armored units and the numerous supply trucks in the enemy rear area.

Both land and air forces will be required to combine their efforts in order to suppress the enemy air defenses to achieve the desired degree of air superiority over the battlefield needed for close air support/interdiction missions. In fact, NATO artillery should plan to make Soviet surface-based air defenses a priority target. The Israeli experience in 1973 indicates that only after enemy surface-to-air capabilities are defeated can close air support be widely employed to assist land forces.

As illustrated by the casualties in the American Civil War and World War I, we may have again reached a point in history where weapons are way ahead of tactics. Therefore, we should closely examine tactics that throw aircraft into the close air support mission without a great reduction in enemy air defense effectiveness. The losses may be greater than the results, as was the case of the German Luftwaffe bombers in the Battle of Britain and Israeli close air support missions during the first few days of the 1973 Middle East War.

The nature of modern warfare demands that we be correct the first time. Failure to accomplish our mission as a result of pursuing the wrong objectives means death and defeat. Therefore, air commanders must identify their objectives.

Historically, we have relied on the superior technology of our systems and the superior training of our personnel to offset any quantitative disadvantages we face in Europe. Now that the Soviets are rapidly increasing their technological sophistication, a turning point seems to have been reached. Most people are aware of the numerical superiority of Soviet weapons and forces, and a few are beginning to appreciate the qualitative improvement the Soviets have steadily made over the past few years. The operational implications of this trend, however, have not been thoroughly explored by our military analysts.[17]

What must be done?

The U.S. Air Force has been accused of relying too much on the principle of flexibility in air power employment. To the contrary, reliance on this characteristic has repeatedly proved sound; we usually get into trouble when we deviate from it. In a high-intensity conflict, the air commander must retain the flexibility to adjust his forces during the "fog of war."

My purpose here is not to advocate a radical alteration of our current force structure. However, I believe it may be possible, at relatively small expense, to use what we presently have and are programmed to get much more effectively. Even without any aircraft modifications, I believe we must ensure that operationally we are getting the most out of our weapon systems, i.e., operating them in an optimum manner against any threat posed by Soviet tactical aviation and ground forces. An example of tactics that maximized the potential of a weapon is the World War II German blitzkrieg against French forces that actually possessed tanks that were superior to those of the Germans in terms of armor thickness, firepower, and handling characteristics, and which possessed equivalent speed as well.[18]

Although they are only discreetly discussed within the Air Force, there are several major options that could enhance our flexibility.

Why not use our complex and costly fighters in a multirole if they inherently possess this growth potential in mission capability? For example, the F-15 is a tremendous air superiority fighter and at present is assigned only this single mission. However, it could have a significant ground attack capability. Why not buy the bomb racks and air-to-surface munitions and train the pilots for the multimission capability the F-15s inherently possess?[19]

Although now limited to the ground-attack mission, the A-10 could be employed against Soviet helicopters and enemy fighters that transit its areas of operations.[20] After all, Hans Ulrich Rudel, the great German tank killer with 519 confirmed kills, and other Stuka pilots on the Eastern Front shot down many Russian aircraft.[21] We will need the maximum number of effective sorties immediately, and this could include A-10s shooting down enemy aircraft, especially Hind helicopters. It would take only a small amount of training (perhaps two to four sorties per year) to provide A-10 pilots some degree of proficiency in the fundamentals of aerial gunnery. It will be too late to get the required training after a conflict breaks out.

Other questions that may require changes in Air Force thinking and policy need to be revived and debated. We still lack a true beyond-visual-range (BVR) air combat capability.[22] Why not equip our fighters with some type of video instrumentation in the cockpit that would allow them to fire on hostile aircraft with medium-range, air-to-air (A/A) missiles? It does not make sense to carry A/A missiles with a 30-mile range and normally use them only within a 3-mile distance of our aircraft. Other necessary steps are to ensure aerial rules of engagement that allow BVR missile firings and the required training to produce pilot proficiency. In addition, the F-16 would be greatly enhanced if it were modified to carry radar-guided missiles. This capability has already been demonstrated.[23]

NATO planners should prepare effective plans to counterattack any Soviet invasion, rather than rely on defending against a blitzkrieg-style attack. This planning would require extending their sights beyond the present Western European boundaries. This new threat of an immediate counterattack to the Soviets' territorial buffer acquired since World War II could serve as a deterrent to aggressive actions on the part of the Russians and their Warsaw Pact allies. History, unfortunately, does not record the outcome of unused options and alternatives. Therefore, it is extremely important for planners to develop options that actually affect the outcome of a war.

Another area that needs further review is the best use of our air power in a high-intensity European conflict. NATO needs a concept of operations that allows relatively weaker forces to defeat numerically stronger opponents. To fulfill this requirement, Colonel John Boyd, USAF (Ret), has developed a concept of strategy and tactics that is appealing.

> The concept has as its dominant objective the ability to present the enemy with challenges and to do so more rapidly than the enemy can receive information, process it, and act on it. . . . the important advantage was the ability to switch from tactic to tactic, constantly presenting the opponent with a new situation and doing so more rapidly than he could respond.
>
> . . . this concept seeks to disorient the enemy by presenting incomplete and inaccurate data; to disrupt operations to generate confusion, disorder, panic, and chaos; and, through these actions, to shatter cohesion and cause paralysis and collapse.[24]

Because of its inherent characteristics, air power is well suited to perform this disruption and destruction strategy. For example, a prime target of NATO air forces should be the rigid Soviet command, control, and communications (C^3) system. Because initiative is only exercised at the Soviet division level, or higher, it is important to attack their C^3 structure. A combination of terminally

guided weapons ("smart bombs") delivered by fighters and saturation attacks by B-52 bombers could achieve the desired objective.

Our aerial firepower should be carefully directed. As a strategy, it will not generally be cost effective to attack enemy tanks or aircraft on a one-to-one basis, i.e., trying to destroy an armored vehicle in one pass or aerial dogfighting. A much better strategy would be to use our bombers and fighters in attacks on selected enemy airfields, massed armor in reserve and artillery formations, command, control, and communications sites, etc. Potentially, this could be a greater aid to our ground forces than the traditional close air support they expect.

a perspective

The U.S. role as a world power demands that the Air Force maintain a balanced and flexible capability to accomplish whatever mission is necessary, i.e., counterair (offensive and defensive), close air support, and/or interdiction. Assessing a mission in isolation from the overall military strategy has been a problem in the past. The first major step in being successful against Soviet/Warsaw Pact forces is the selection of an air power strategy to achieve theater objectives as simply and directly as possible. Once this is done, we can determine how each tactical mission will contribute to the overall objective. From this determination we can fix the priority, allocation of effort, and sequencing of each mission into a logical and simple battle plan. Since the tactical missions are interdependent, the battle plan must be designed to ensure that the missions—counterair, interdiction, and close air support—reinforce each other to achieve the objective as quickly and efficiently as possible.

Success in warfare demands an appreciation for the value and limits of offensive and defensive air actions. Defensive air action can provide security for friendly forces and help to slow or stabilize the enemy ground offensive. It cannot capitalize on the element of surprise because it is reactive in nature and concedes the initiative to the enemy. A defensive posture gives up the opportunity to concentrate forces at the decisive time and place. In order to be completely successful, it requires the detection, identification, interception, and destruction/neutralization of every major threat before an enemy attack is completed. By comparison, offensive air action offers many advantages that the defense cannot. By going on the offense, the opportunity to achieve surprise is enhanced. Another plus is the ability to concentrate forces at the decisive time and place. As the situation dictates, we have the flexibility to change plans while conducting offensive air attacks, thus affording us the initiative of attacking when and where desired. Most important, we have an opportunity to achieve victory on our terms.

General William Momyer, in his *Air Power in Three Wars*, stresses the importance of lessons learned and then apparently forgotten in subsequent conflict. He analyzes the overall concepts of air power employment, strategy and tactics, and priority of missions with the stated objective that "our airmen won't pay the price in combat again for what some of us have already purchased."[25]

THE extensive modernization of the Soviet Frontal Aviation forces could decide the survival and success of its ground forces against NATO's armed forces in a future conflict. The Soviets once emphasized interceptor aircraft with a short range and small payload, but their tactical doctrine now stresses interdiction deep into enemy territory and close air support for their ground forces. The Soviets have developed large numbers of modern aircraft with improved performance in range, weapon payload, avionics, and electronic countermeasures equipment. They have arrived at a position where their force

structure seems capable of carrying out their strategy and tactics in a high-intensity warfare situation. The superiority of U.S. and NATO air forces has eroded because of qualitative improvements in the technology of Soviet aircraft. These Soviet high-technology systems, coupled with the long-standing numerical superiority of FA forces, have greatly increased the threat to NATO ground and air forces.

This growing Frontal Aviation threat requires that we thoroughly examine our strategy, tactics, forces, training, and overall readiness. Historically, there have been many opinions and much controversy over the best use of air power. There are ways to improve our tactical air power employment in order to defeat the Soviet FA threat. I advocate a degree of change and not a radical break in our current force capability, planning, apportionment, etc. Now that the threat perception of Soviet FA modernization is becoming obvious, we must scrutinize our strategy and force structure for changes necessary to counter this threat.

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Notes

1. Alexander Boyd, *The Soviet Air Force since 1918* (New York: Stein and Day, 1977), p. 218.
2. "The Military Balance 1979/80," *Air Force*, December 1979, p. 70.
3. William Schneider, Jr., "Trends in Soviet Frontal Aviation," *Air Force*, March 1979, p. 80.
4. *The United States Military Posture for FY 1980* (Washington: Joint Chiefs of Staff publication, Government Printing Office, 1979).
5. M. O. Norby, *Soviet Aerospace Handbook* (Washington: Government Printing Office, 1977), p. 39.
6. John W. R. Taylor, "Jane's Aerospace Review 1977/1978," *Air Force*, January 1978, p. 19.
7. Carl E. Daschke, "The Threat: The HIND Myths and Facts," *U.S. Army Aviation Digest*, December 1979, p. 43. This article also includes an interesting section that postulates an air-to-air mission for the Hind against our antitank aircraft.
8. P. S. Kutakhov, "The Conduct of Air Operations," *Selected Soviet Military Writings 1970-1975* (Washington: Government Printing Office, 1977), p. 240.
9. Schneider, p. 80.
10. Ibid.
11. Jacquelyn K. Davis and Robert L. Pfaltzgraff, Jr., *Soviet Theater Strategy: Implications for NATO* (Washington: United States Strategic Institute, 1978), pp. 19-20.
12. Boyd, pp. 227-28.
13. Clarence A. Robinson, Jr., "Soviets to Field 3 New Fighters in Aviation Modernization Drive," *Aviation Week & Space Technology*, March 26, 1979, p. 14.
14. Ibid.
15. Charles E. Canedy, "Tac Air: An Army View," *Air Force*, February 1978, p. 56.
16. Adolf Galland, *The First and the Last* (New York: Ballantine, 1973), pp. 33-34.
17. Edward N. Luttwak, "The American Style of Warfare and the Military Balance," *Survival*, March/April 1979, p. 57.
18. William J. Perry, Overview Statement on the Department of Defense FY 1980 Procurement Program before the Subcommittee on General Procurement, Committee on Armed Services of the United States Senate, 6 April 1979, p. 5.
19. Bonner Day, "The Pros and Cons of a Multimission Fighter Force," *Air Force*, April 1979, pp. 60-63. This author has written an excellent critique of the factors involved in force structure tradeoffs.
20. Retsae H. Miller, "Air Superiority at the Treetops," *Military Review*, March 1979, pp. 2-9. Although this may be the opening shot in a new Army-Air Force fight over roles and missions, it demonstrates that the Army is considering helicopters to counter the Soviet attack helicopter and airmobile force threat.
21. Hans Ulrich Rudel, *Stuka Pilot* (New York: Bantam Books, 1979), pp. 130, 202-3.
22. A few Air Force F-4s do have TISEO (telescopic imaging sight electro-optical) and some Navy aircraft such as the F-14 are equipped with TVSU (televideo sight unit). However, our air superiority fighters, e.g., F-15 and F-16, do not possess any BVR optical equipment.
23. Raytheon advertisement, "Sparrow AIM-7F . . . because this is no place for second best," *Air Force*, November 1978, pp. 22-23. The F-16 is currently equipped with a 20-mm cannon and heat-seeking missiles. If it were adapted to carry radar missiles, the increase in F-16 combat capability would be significant.
24. Raymond B. Furlong, "Strategymaking for the 1980's," *Parameters*, March 1979, p. 14.
25. William W. Momyer, *Airpower in Three Wars* (Washington: Government Printing Office, 1978), p. v.

A cruise missile can be defined as a dispensable, pilotless, self-guided, continuously powered, air-breathing warhead-delivery vehicle that flies just like an airplane, supported by aerodynamic surfaces.[1]

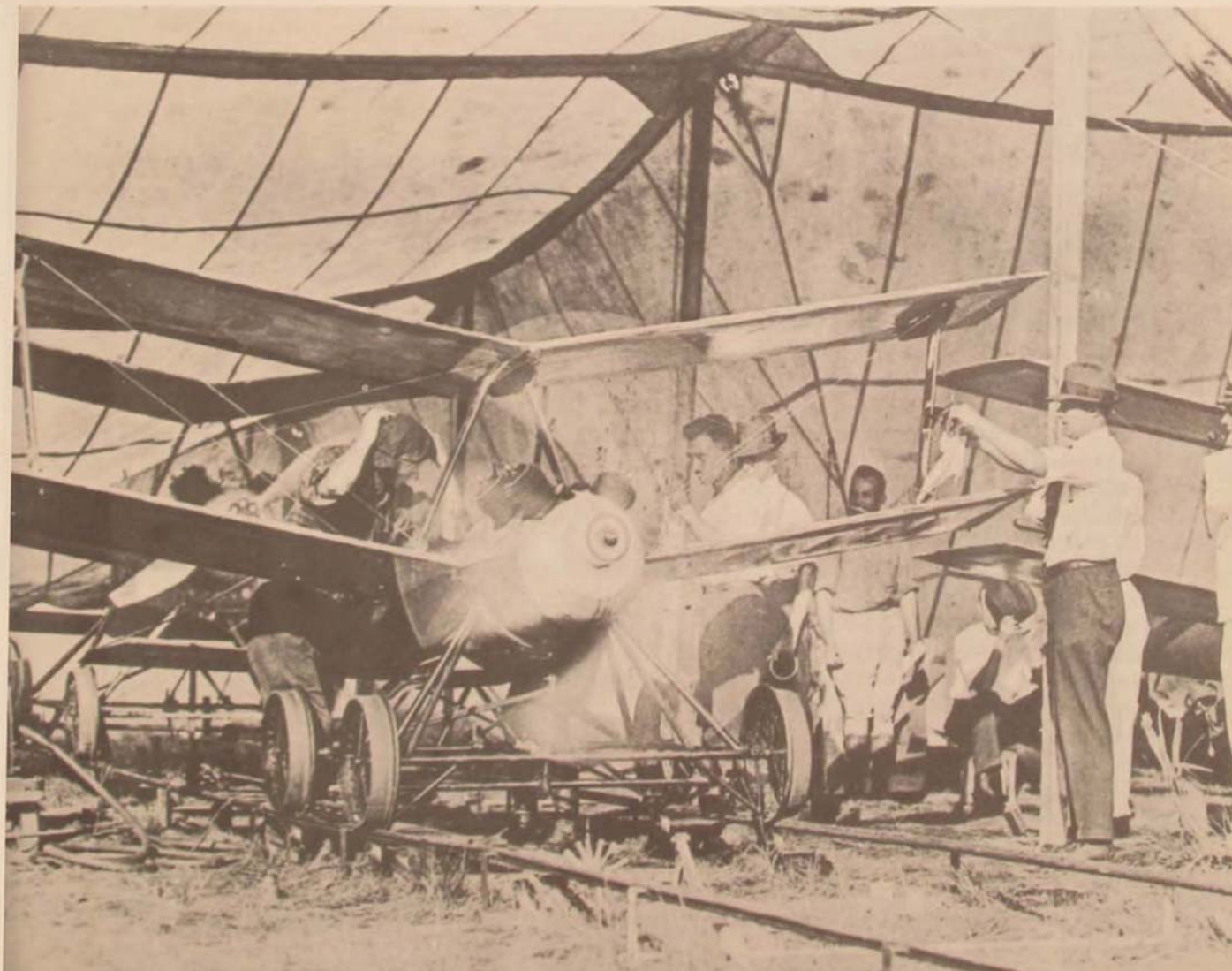
THE CRUISE MISSILE
precursors and problems

Kenneth P. Werrell

THE years 1976 and 1977 marked a turning point in U.S. Air Force history. During those years the cruise missile was tested, a weapon with remarkable performance and the promise of relatively low cost. Clearly, the cruise missile was material in the cancellation of the B-1 bomber. For years the Air Force had been seeking a follow-on to its 1950 state-of-the-art B-52s, but efforts with the B-58 and then the B-70 had failed. Great hope was placed on the B-1, but questions as to its cost and ability to penetrate to the target led to President Carter's decision in June 1977 to put it aside. In short, the B-1 was judged not to be as cost effective as the air-launched cruise missile (ALCM). What is this cruise missile that will change Air Force weapons and thinking? What is its background?

WHILE the name may be new, it turns out that what we today call a cruise missile has been around for quite a while, though known by other names. From the outset, it was recognized that unmanned aircraft possessed a number of advantages over manned aircraft. The primary selling point was low cost. Because the weapon was a one-shot deal, expected to perform only once and then for a few hours at most, cheaper materials, lower manufacturing tolerances, and other shortcuts could be made in design and production. The absence of a crew member and associated safety devices, instrumentation, and

The World War I "Aerial Torpedo" or "Bug" was the first serious American attempt to build a cruise missile. The "Bug" was developed by Elmer A. Sperry, the father of the gyroscope, and automotive engineer Charles F. Kettering, inventor of the first electric starter and a pioneer in his work on high octane gasoline and the Diesel engine. . . . Launched from rails on a jettisonable dolly, the "Bug" maintained its heading toward target aided by Sperry's gyros. Barometric sensors and pneumatic servos kept it at a more or less constant altitude. Range was determined by a timer and was a maximum of 35 miles. The war ended before this cruise missile could be used in combat.



During World War II concern about aircrew losses, always a motivating factor in U.S. cruise missile development, led to the use of standoff glide bombs for flak suppression. Crude wings, control surfaces, and a gyro-stabilized control unit were strapped onto a standard 1000-pound or 2000-pound bomb casing and released by a B-17 Flying Fortress some distance from the target. Accuracy was poor, and the glide bomb was abandoned after several trials.

safety factors in engine and airframe further cut weight, complexity, and cost. A second major advantage was that a crew member would not be subjected to hostile fire.

But throughout its history, the unmanned weapon had to overcome a number of inherent problems, and its present-day success is due to the triumph of incremental technology over these problems. Probably the most difficult of these has been guidance. The absence of a pilot meant that the device had to be guided by some other means. The early primitive guidance systems created problems of accuracy, especially serious considering the small payload that could be carried. The earliest cruise missiles were typically guided by nothing more than a gyroscope that kept the heading more or less constant, supplemented by a barometric device of some sort to roughly control altitude, plus a timer to determine range. The result was low accuracy.

Low accuracy meant that only large targets could be engaged effectively. Another problem has been vulnerability. Without active defenses and unable to maneuver if attacked, the unmanned aircraft had to depend on speed, numbers, and surprise to get through. These problems were characteristic of cruise missiles from the start and were only gradually overcome.

As early as 1914, the British began experiments with a pilotless aircraft under the direction of A. M. Low. The same idea was considered in other countries as well, including the United States and Germany. In fact, a number of pilotless aircraft actually flew before the end of World War I. A U.S. Navy project was associated with Glenn Curtiss, while an Army project is linked with a team led by C. F. Kettering and Elmer Sperry. The latter produced and tested the "Bug," made of papier-mâché and wood, weighing 300 pounds and capable of carrying a 300-pound warhead about 50 miles. The cost?—about $400.

The impact of Hitler's buzz bombs on England led to frantic American efforts to catch up. Almost a direct copy of the German V-1, the Republic JB-2 Loon derived from parts of an unexploded buzz bomb recovered in June 1944. . . . In the spring of '45, the Loon was tested stateside as an air-launched cruise missile beneath the wings of a B-17G at Alamogordo AAF (above) and at Eglin Field (right). The Luftwaffe used this technique operationally, launching V-1s from Heinkel He-111s over the North Sea.

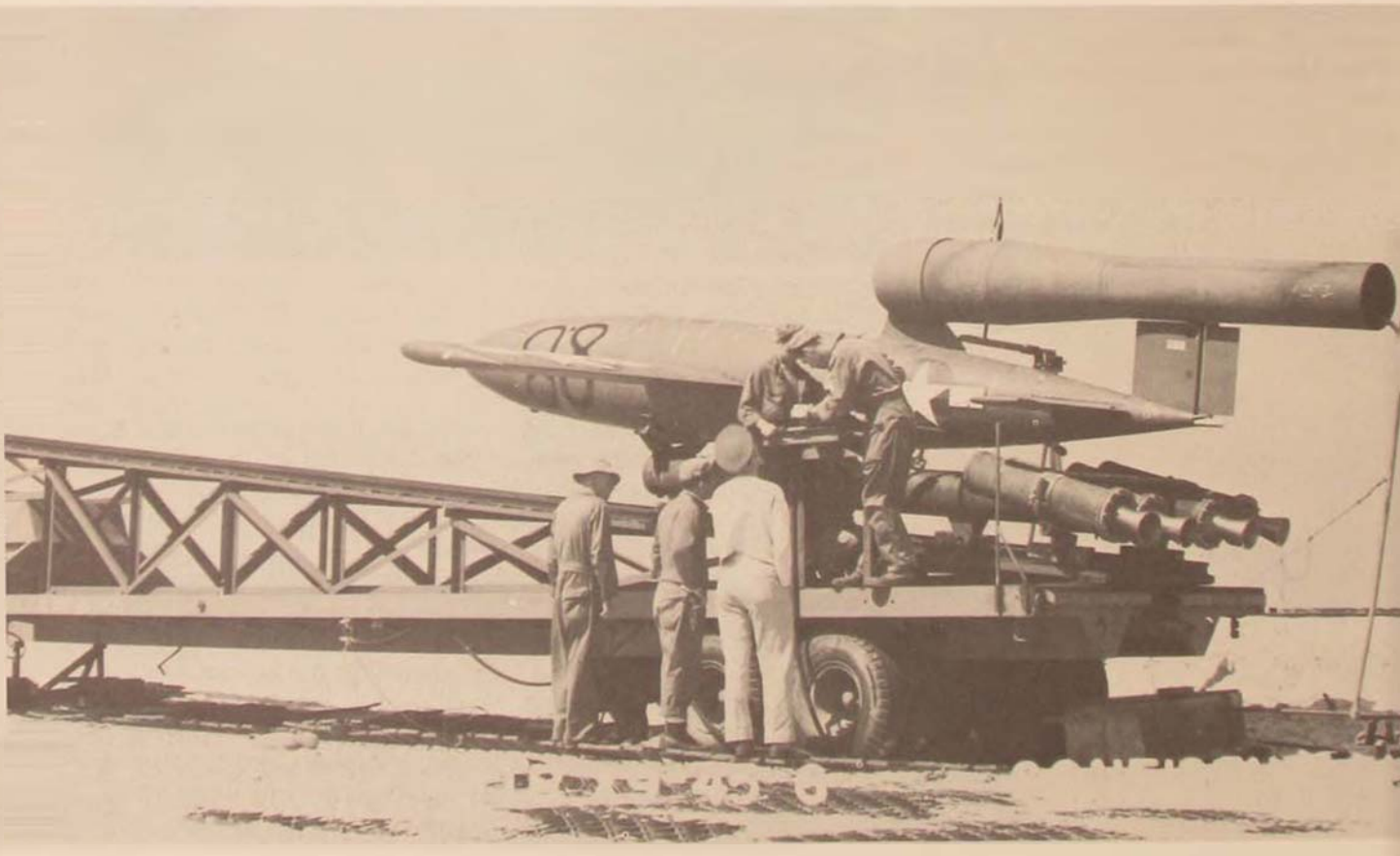
But the end of the war brought a quick halt to this and many other promising ideas. Discussions concerning unmanned aircraft continued in the interwar years, but the rapid development of conventional aviation and the scarcity of money for the military, especially after the Stock Market Crash of 1929 and the ensuing depression, prevented much more than just talk. An exception was in Britain, where pilotless aircraft research and development was actively pursued. In 1929, for example, the Royal Air Force tested the Larynx (Long Range Gun with Lynx engine), but that was about the extent of it.

When the United States entered the war in December 1941, our airmen saw the four-engine bomber as their major weapon. Nevertheless, the Army's top airman, General Henry H. "Hap" Arnold, noted that the "Bug" had been upgraded. By 1941 latter-day descendants of Kettering's pilotless bomber were capable of hauling a 800-pound warhead 200 miles. Other improvements included radio control guidance compared with the preset arrangement in the vintage 1918

"Bug." But the American airmen had invested too much into their concept of strategic bombing to give such a weapon really serious thought. Early American cruise missile developments in World War II thus lacked not just a commitment in equipment, training, and doctrine but, maybe even more important, an emotional commitment. In addition, and ultimately more compelling, the pilotless aircraft lacked the range, accuracy, and payload that the airmen calculated would be needed to do the job—and, even then, these calculations proved to be somewhat optimistic. World War II, from the American airmen's point of view, was a war of precision strategic bombing and the inaccurate, low-yield cruise missile had no real place in their scheme of things.

Not that the airmen were immune to technical change, but iron bombs dropped by four-engine bombers flying in tight formation in daylight was the way it was done in the "Big War," especially against Germany. Operational experiments were conducted with remotely controlled, guided, free-fall bombs and with both guided and unguided glide bombs. In another effort, old bombers were stripped of equipment, to be crammed with explosives and sent toward German targets. Controlled by radio devices, the last versions were equipped with television for terminal homing accuracy. But despite considerable effort, technical problems thwarted the success of all these projects.

The German genius created, developed, and put into operation both air-breathing and ballistic missiles during World War II. It is with the air-breathing



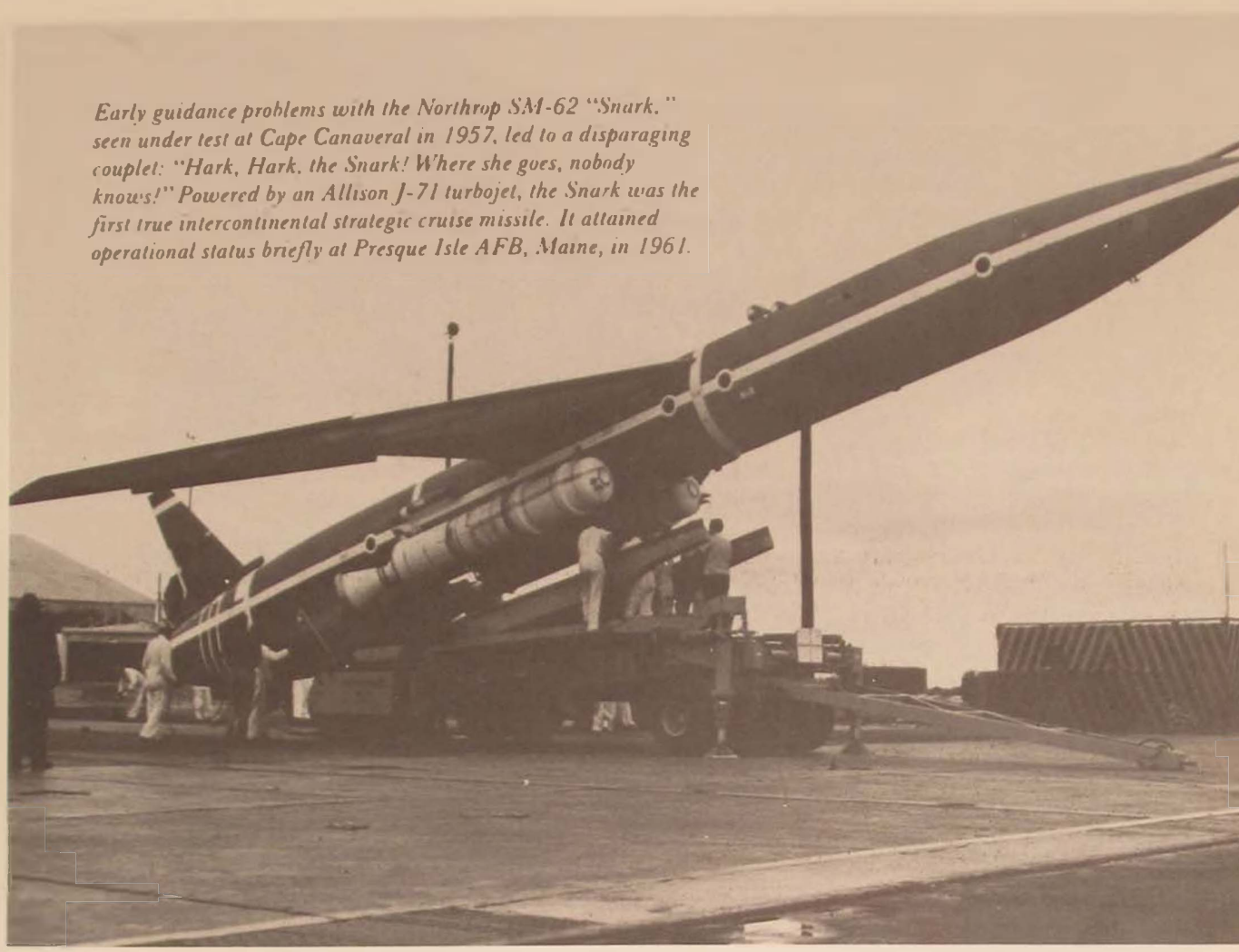
Limited though it was operationally, the Loon (opposite, on launching rails at Eglin Field in April 1945) presaged the massive U.S. research and development (R&D) effort in missiles and rocketry following World War II. Though its pulse-jet engine gave it a cruise speed of nearly 400 knots, its guidance and control systems were little more sophisticated than the Sperry-Kettering Bug. . . . The real impetus for postwar R&D came from the German V-2 (right, being erected for test firing). The development and employment of the air-breathing V-1 and the ballistic V-2 constituted the first real competition between these two types of weapons. . . . By the mid-'50s, cruise missile technology, exemplified by a U.S. Navy Regulus II (below) under test at Edwards AFB in 1956, had gone far beyond the V-1 and the Loon. The supersonic-capable Regulus II was an R&D derivative of the earlier Regulus I, deployed operationally on Navy submarines.

Another competitor to the cruise missile was—and is—the ballistic, air-launched attack missile, here in the form of an experimental Bell "Rascal" (left), being tested beneath a B-47. . . . In the '50s and '60s USAF tactical cruise missile development centered on the Martin TM-61 Matador (below, under test at Holloman AFB in 1956) and its derivative, the TM-76 Mace (below, left, test firing at Cape Canaveral in 1962). Though similar in appearance, the Mace represented a major advance over the Matador in guidance technology. While the Matador was guided by radio command links, Mace had inertial guidance with terrain-matching radar for mid-course corrections. Maces remained in the USAF inventory until the early '70s.

V-1 buzz bomb that the operational history of the cruise missile really begins, for the V-1 was the first pilotless bomber ever to be employed in large numbers and with effect. While the development of the spectacular V-2 ballistic missile need not detain us here, the simultaneous development and operation of the two does point out the problems and relative advantages of each.

The V-1 was made possible by mating a pulse-jet engine to a very simple airframe, a cheap and effective combination. In contrast, the V-2 cost between four and twenty or more times as much to build as did the V-1, depending on how the costs are calculated. Yet, in most ways their performance was remarkably similar. The accuracies of the two were comparable, 80 percent of the V-1s impacting within eight miles of their aiming point. Each carried a warhead of about 2000 pounds out to a range of about 150 miles. In the summer of 1944, the two were launched against Britain, causing considerable damage and widespread concern. Anglo-American countermeasures highlight one major difference between the two missiles: once the ballistic V-2 was launched, there was no stopping it, unlike the winged V-1 which could be intercepted.

One defensive measure was to attack the facilities and bases linked with the V-weapons. The American and British strategic bombers pounded these targets



Early guidance problems with the Northrop SM-62 "Snark," seen under test at Cape Canaveral in 1957, led to a disparaging couplet: "Hark, Hark, the Snark! Where she goes, nobody knows!" Powered by an Allison J-71 turbojet, the Snark was the first true intercontinental strategic cruise missile. It attained operational status briefly at Presque Isle AFB, Maine, in 1961.

but could only delay, not stop, their employment. At the same time, the bombing of the V-weapon targets was a drain on the strategic bombing offensive as well as support of the Anglo-American land offensive.

A second method was indirect, a clever British deception that emphasizes the need for accurate and timely target information. Because of the lack of German aerial reconnaissance, the British control of both obituaries that appeared in the British press and espionage reports sent back to Germany through agents controlled by the British, the Germans were convinced that their missiles were impacting beyond their aiming point. In fact they were falling short, and with each German correction, they fell ever shorter.

Although the V-2s could not be intercepted in flight, the V-1s could be and were. The 400 mph buzz bomb was essentially defeated by conventional means. Interceptor aircraft, barrage balloons, and a thick screen of flak (including the first use of proximity fuzes in Europe) knocked down about half of the V-1s launched, 75 percent in the last week of the campaign.

The capture of the V-weapon launching sites by the advancing western armies ended the campaign. While some V-1s were later air-launched, the major assault of Britain was over. In all, about 8000 V-1s were launched against Britain,

Though never deployed as an operational weapon system, the Northrop XSM-64 Navaho (facing page, being prepared for a test firing at Cape Canaveral in September 1957) left a major imprint on subsequent U.S. development of high performance air-breathing military vehicles of all kinds. Quite an advanced project for the early '50s, when development was initiated, the Navaho was powered by two Wright RJ-47 ramjet engines with 30,000-40,000 pounds of thrust each. As shown here, it was launched vertically with a large strap-on liquid-fueled booster. The divided, outward-splayed vertical stabilizers were developed to accommodate shock wave characteristics at high mach numbers. The Navaho pioneered basic configuration needed for operations above Mach 1 and influenced vertical stabilizers of the F-14, F-15, and MiG.

killing 6000 Britons. Another note of interest to current planners, the Anglo-American defenses cost about four times as much as the German's missile offensive. In World War II, however, the Anglo-Americans could well afford the cost; the Germans could not.

The relative success of the V-1 reawakened American interest in cruise missiles; using captured components and doing little more than copy the German original, the U.S.A.A.F. built its own version of the V-1 in 60 days. The awakened interest in missiles did not die after the war. The capture of the Germans' designs, equipment, factories, and personnel permitted the victorious powers to capitalize on the work the Germans had done in propulsion and guidance. More important, however, was the development of the atomic bomb. With such warheads, the accuracy problem was essentially resolved.

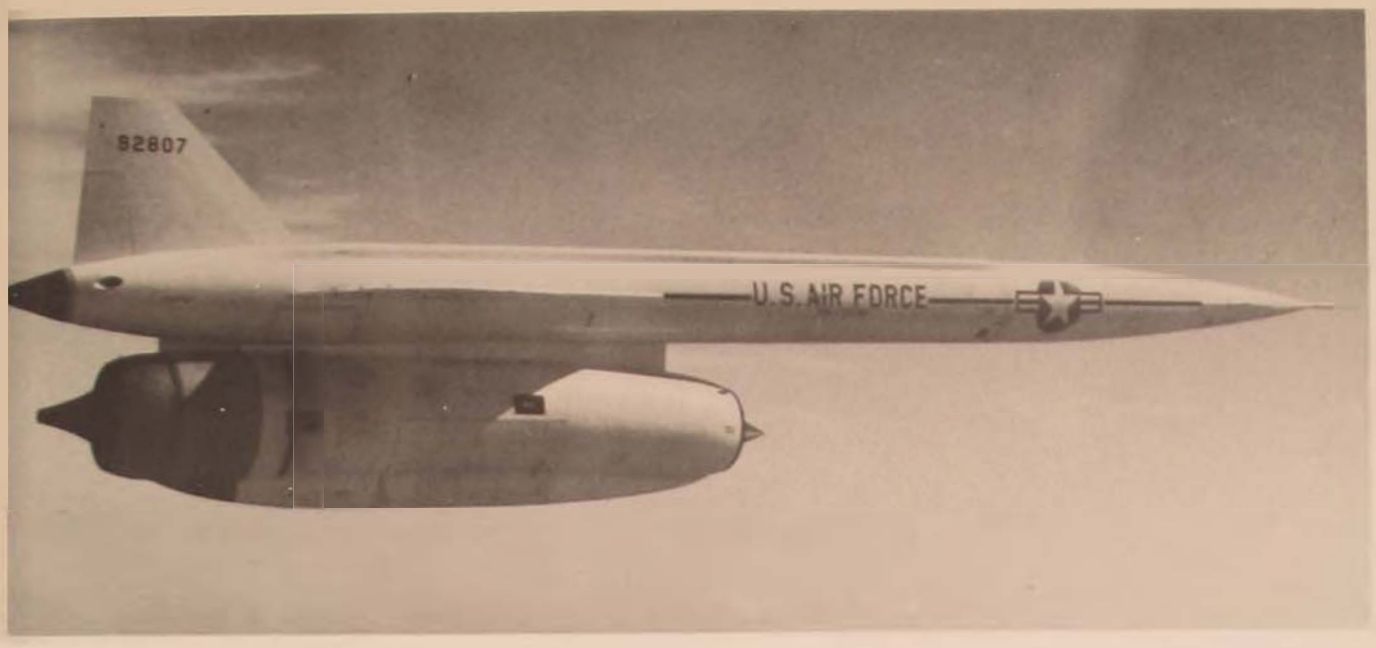
The Navy developed the Regulus missile, which first flew in 1951. It had a range of about 500 miles and flew at a speed of about 600 mph. The missile was operated from the decks of submarines (four converted subs and one nuclear one), aircraft carriers, and cruisers. The Regulus became operational in 1955 and the last was delivered to the Navy in 1959. An advanced version, the Regulus II, had a range of more than 1000 miles, but it was canceled in 1958.

The postwar Air Force program produced a number of winged missiles, the most successful of which was the Martin Matador. Originally designated the XB-61, its design phase began in 1946 with the first model flying in January 1949. It had a range of about 600 miles and a speed of 650 mph. The Matador became operational in Germany in 1954, and the thousandth copy was delivered in 1957.

The Matador was succeeded by the follow-on TM-76 Mace, which first flew in 1956. Although its flight performance was slightly better than that of the Matador, the real difference between the two was the Mace's better guidance. Compared to the ground control guidance system of the Matador, the Mace (TM-76A) was fitted with a map matching navigational system (ATRAN), while another version (TM-76B) was guided by an inertial navigational system. Eventually the Mace was to have a range of 1200 miles and a speed of about 650 mph.

At the same time, work was being done on strategic range winged missiles. The development of the tailless Northrop Snark began in 1946 under the designation of B-62. Redesignated SM-62A, it had a range of over 5500 miles at a speed of about 615 mph. The 60,505-pound missile was tested over a 5000-mile range in 1957 and was to be guided by an inertial system with a star-tracking device. It got into the inventory in the early 1960s; however, after 30 of them were declared combat ready in only four months, the Snark unit was deactivated.

The Air Force's other winged strategic missile did not get even that far though it produced a wealth of data for later high-speed, air-breathing projects. The North American XSM-64 Navaho was to be powered by two ramjets after being



As Navaho phased out as a potential operational vehicle, SAC showed renewed interest in shorter ranged, air-launched missiles. This interest ultimately resulted in two operational missiles, the ADM-20 Quail radar decoy missile and the AGM-28 Hound Dog (above, in flight). Though the Hound Dog's performance was good for its day, it suffered from reliability and maintainability problems. Carried in pairs by B-52Gs and Hs, the Hound Dog was in the SAC inventory from 1959 until the mid-'70s. Meanwhile, the Navaho (opposite, taking off from Cape Canaveral) underwent a metamorphosis, emerging as the X-10 research and development vehicle. Knowledge fallout from the X-10 has had a profound effect on subsequent U.S. supersonic air-breathing vehicles.

launched vertically in piggyback fashion on a booster rocket. It also had a 5000-mile-plus range and was supersonic with the capability to fly at the speed of mach 2.5 and 75,000 feet. But that performance did not come without cost; the Navaho tipped the scales at over 120,000 pounds, and the size of Navaho's budget raised congressional eyebrows. Thus the cheaper Snark and the prospect of ballistic missiles led to its demise in the mid-1950s.

By the late 1950s and early 1960s, most attention had shifted from unmanned winged missiles to ballistic missiles. Even a cursory check of military periodicals of the period shows that very little was written on winged missiles in the 1960s and 1970s. The primary work with the air-breathing devices was done as aids for the bomber force, both as standoff and decoy missiles. While the rocket-propelled Rascal was developed to be used with the B-47, two air-breathing missiles were developed for use with the B-52. The North American Hound Dog was a standoff weapon that came into service in the 1960s with a 700-mile range and speed exceeding mach 2. Two were carried externally by a B-52, each armed with a one megaton warhead. The McDonnell-Douglas Quail was a decoy missile that simulated the appearance of a B-52 to hostile radars and had a range of over 200 miles. Until the latter part of the 1970s, it seemed that the winged missile was destined to be but a tool for manned bombers.

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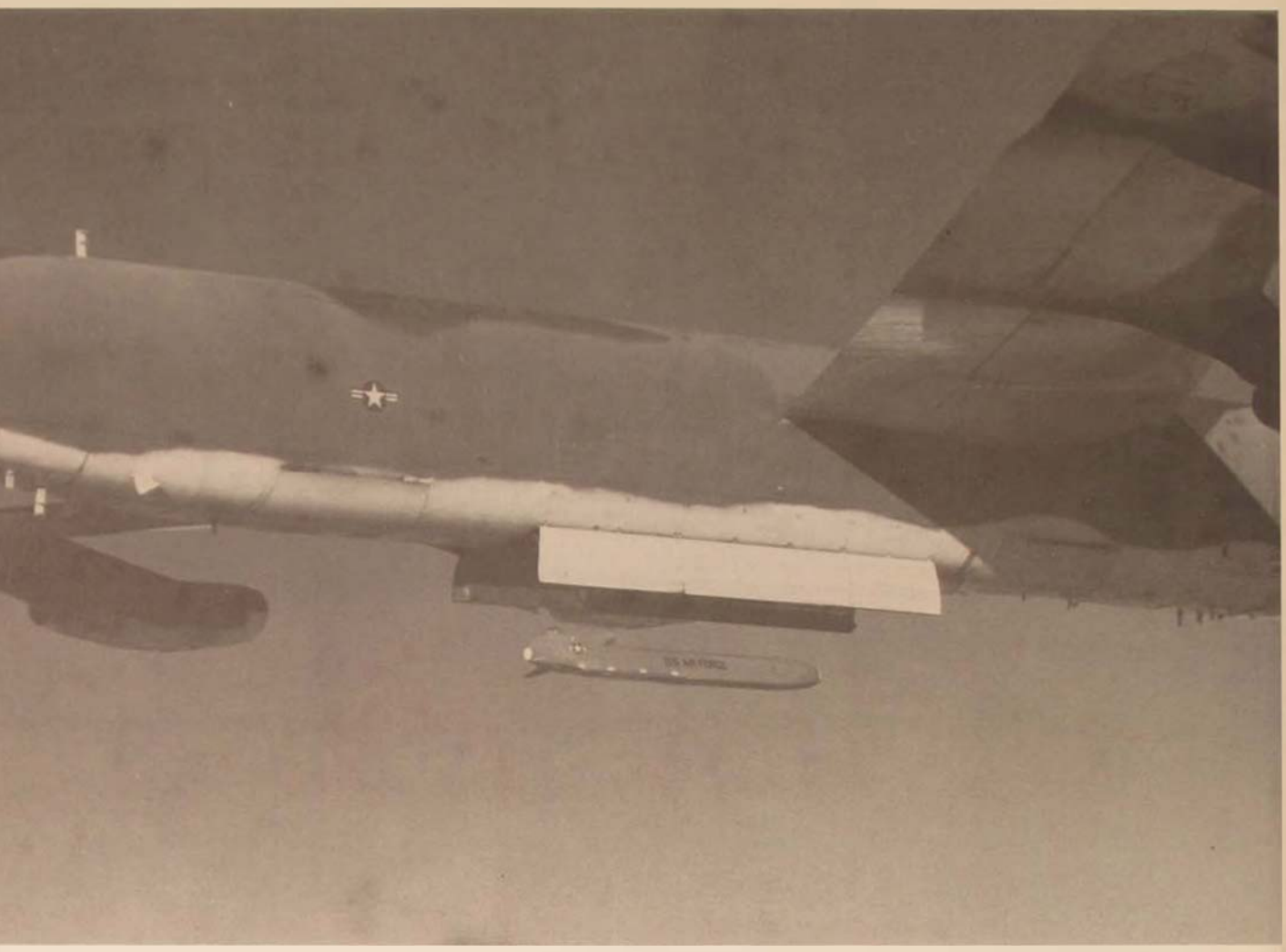
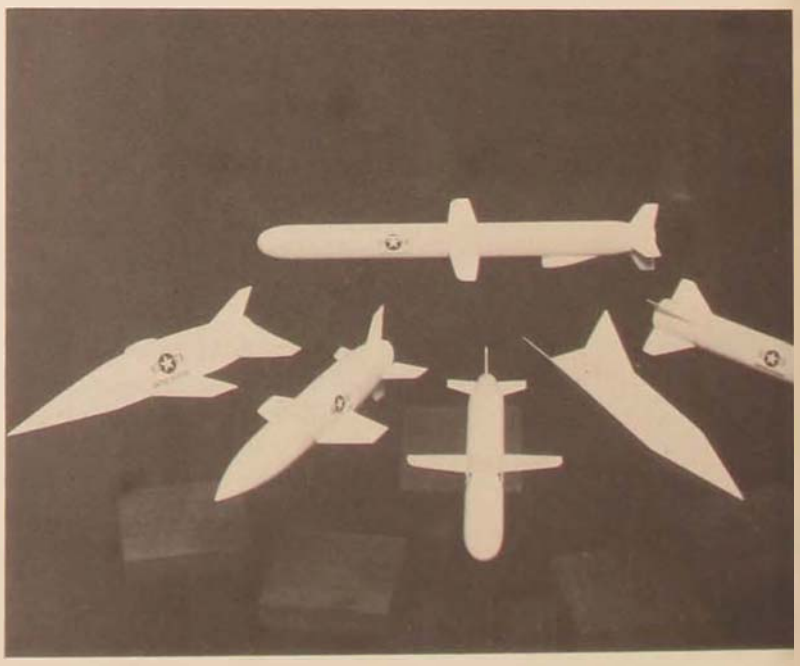
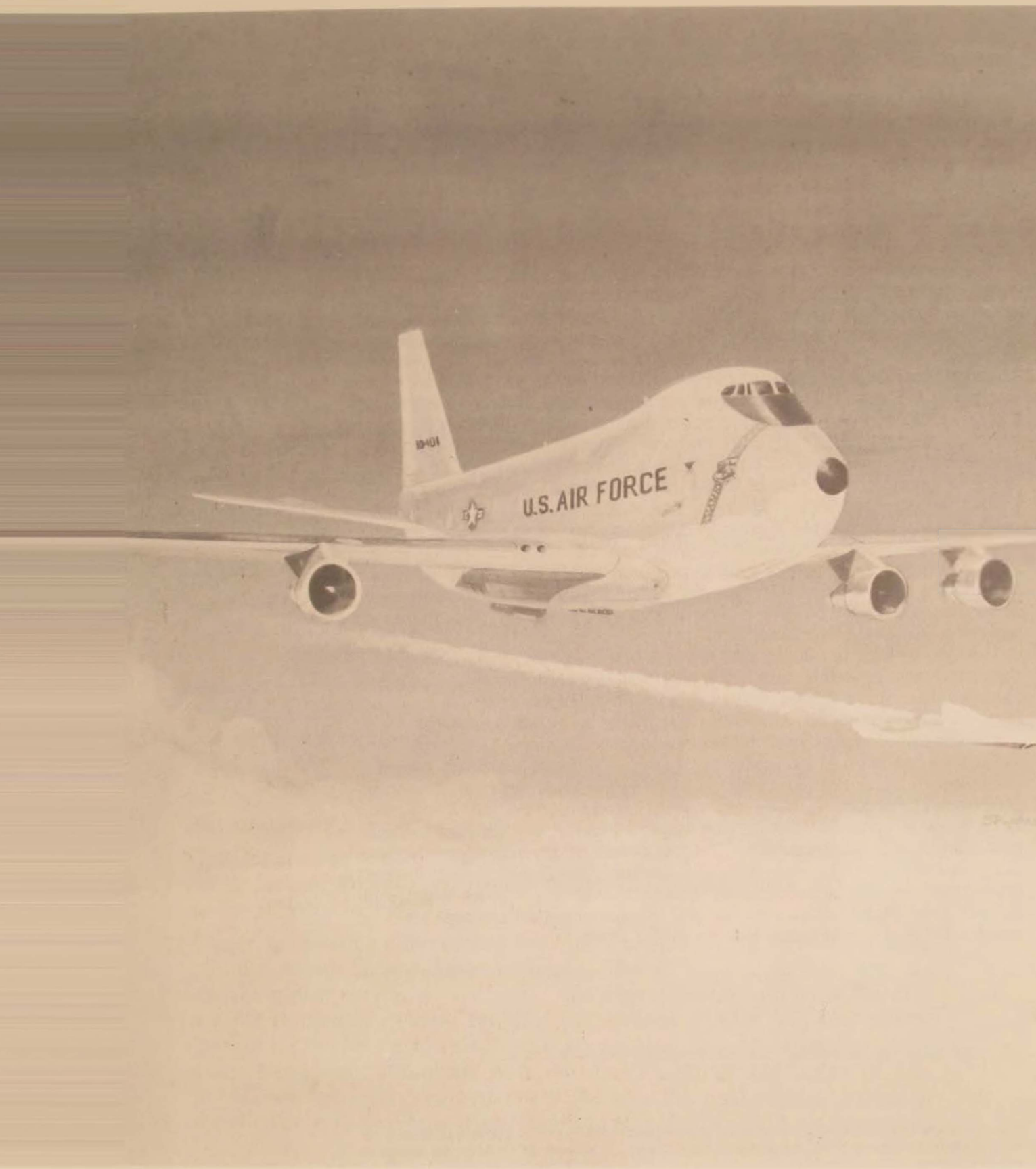




The present and future of U.S. cruise missile development are summed up here in photographs showing the test launch of a Boeing AGM-86B ALCM from a B-52 (above); a General Dynamics AGM 109 Tomahawk (right), surrounded by contractor models demonstrating possible lines of future configuration development; and (facing page) an artist's conception of an advanced cruise missile being launched from a military adaptation of a Boeing 747.


U.S. AIR FORCE

THEN came what has come to be called the cruise missile. What made it a viable weapon was the perfection of map matching technology and the development of highly efficient miniature jet engines. Small, highly precise, inertial navigation units—a far cry from the "Bug's" crude barometers and gyroscopes—provided a reliable basis for precise navigation; high-speed microcomputers and miniaturized radar circuitry allowed the missile to update its position for terminal accuracy by matching the contours of the ground below the missile with a radar map stored in the computer's memory. Two different designs were considered by the United States, the General Dynamics AGM-109 and the Boeing AGM-86. The two had similar characteristics and performance: a range of over 1300 miles and a speed of just under 500 knots. The Boeing version was ultimately chosen for production.

The big advantage of the cruise missile is its smallness and cost. The missile's small size and weight of less than 3000 pounds enables an aircraft to carry a great number of them: a projected 18 by a B-52 (in comparison with only two Hound Dogs) or as many as 50 by a Boeing 747 or similar wide-bodied transport converted into a missile carrier. Its small size also improved the weapon's chances of penetration, especially when combined with its ability to fly along the contour of the earth, as low as 20 meters above a level surface or within 100 meters of mountainous terrain, according to some published reports. The map matching system (TERCOM) is combined with an inertial navigational system in a system called TAINS. This not only gets the cruise to its target but also with an accuracy heretofore unheard of for an intercontinental weapon: less than 100 meters, an accuracy that brings the cruise missile full circle by making nonnuclear warheads feasible. It costs $1,000,000 a copy—a far cry from the $400 for the "Bug" or $13,000 for the V-1—but in today's economy a million is cheap, thus allowing a great many of them to be purchased. It should be emphasized that there is much to be said for quantity, a factor we in the West have tended to underrate. In short, the cruise missile's relatively low cost and high performance make it a very cost-effective weapon.

The recent revelation of "Stealth" technology makes the cruise missile potentially even more attractive, as it offers the possibility of greatly enhanced ability to penetrate hostile airspace. The prospect of large numbers of these small, accurate low-flying missiles must create nightmares for Soviet defense planners.

The unmanned winged missile has come a long way since 1914. Incremental technology has surmounted problems of range, guidance, warhead, accuracy, and vulnerability, producing a weapon which, while identifiably the same thing, promises to have quite a different net effect. Some believe that the United States has a ten-year lead on the Soviets with this new weapon, a military advantage of potentially enormous importance. But the march of advanced technology is relentless and cannot be underestimated. Certainly, the Soviets have in the past proved their determination and ability to catch up in a hurry. Lest we forget, similar and even longer delays were forecast concerning the Russians' ability to develop the A-bomb. In fact, it took them four years.

Radford, Virginia

Note

1. Kosta Tsipis, "Cruise Missiles," *Scientific American*, February 1977, p. 20

Photos courtesy of the National Air and Space Museum and the Aeronautical Systems Division of Air Force Systems Command. The Editor wishes to thank Gregory P. Kennedy of NASM for his assistance with the captions.

IRA C. EAKER ESSAY COMPETITION

AIR University takes pride in announcing the first Ira C. Eaker Essay Competition. This competition is open to all United States Air Force personnel: active duty, Reserve, and Air National Guard. Its purpose is twofold:

—First, to honor the continuing achievement of General Ira C. Eaker and his colleagues, who lifted American military might from the surface of the Earth into the third dimension of aerospace.

—Second, to memorialize the indomitable martial spirit so central to the success of their efforts, a spirit that nourishes a perception of military service as a calling rather than a mere occupation.

Essays should address problems of strategy, doctrine, leadership, or some combination thereof, within the overall context of military exploitation of the aerospace medium.

First, Second, and Third Prize Medallions will be awarded to the winners as well as U.S. Savings Bonds in the amounts of $2000, $1000, and $500. Honorable Mention recognition certificates will also be awarded.

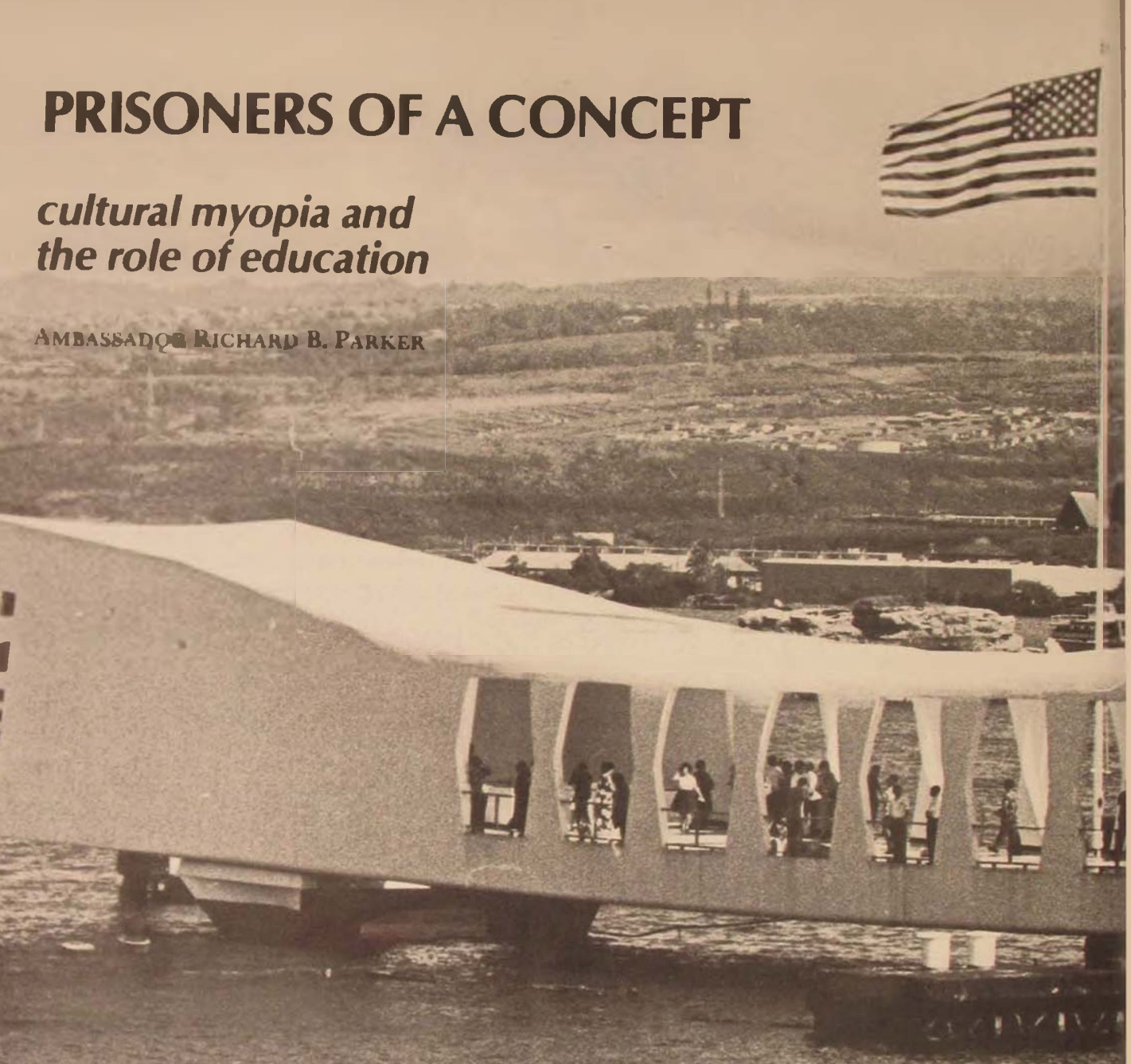
The essay competition is funded by a permanent grant from the Arthur G. B. Metcalf Foundation, made through the United States Strategic Institute of Washington, D.C.

Essays in the competition should be 2000 to 4000 words and typewritten, double-spaced, on standard-size paper. The author's name and address should appear only on a cover-sheet title page. Address entries to The Editor, *Air University Review*, Building 1211, Maxwell AFB, Alabama, 36112. Entries for the first competition must be received or postmarked by 1 June 1981. Essays are submitted with the understanding that rights of first publication belong to *Air University Review*, the professional journal of the Air Force, to be released after the competition at the Editor's discretion.

PRISONERS OF A CONCEPT

cultural myopia and the role of education

AMBASSADOR RICHARD B. PARKER



The U.S.S. Arizona memorial in Pearl Harbor might well serve as a permanent reminder of the risks inherent in viewing a potential enemy through the distorted lens of ethnocentrism.

GOVERNMENTS and armies must forever be concerned to avoid surprise, yet history—from Troy to Tehran—is full of their failing to do so. If the victims survive, the lesson they learn may prevent a recurrence, but it is often misunderstood, or misapplied, or simply irrelevant. Even when the past is relevant, using it indiscriminately as a guide can be fatal. This is particularly true when we become victims of our own historical myths and see our opponents through a distorting, ethnocentric lens. The human tendency to do so is universal, and the ability of the statesman or military leader to discriminate between relevant and irrelevant and to see recent history objectively is by no means assured. It is a function of his education and experience as well as of the dynamics of the situation in which he finds himself. The latter often encourages him to go wrong.

We tend to assume that world leaders make their decisions after a rational, quasi-omniscient balancing of pros and cons, largely removed from visceral considerations and such factors as spite. Unfortunately, those of us who have been close enough to watch the process discover that there is a high degree of subjectivity, not to say irrationality, in many decisions, and this often leads to unpleasant surprises. Ignorance is as important as malevolence in the scenario of surprise.

A prime example was Nasser's behavior in 1967. He apparently believed his own rationalization of Egypt's 1956 defeat—to wit, that Egypt had been defeated by the French and British, not the Israelis, and, by implication, would have smashed the Israelis had the British and French not aided the latter. Thus, he spoke to the troops in Sinai on 22 May 1967, as follows:

> In 1956, on the night of October 29, the Israeli aggression against us began. The fighting started on the 30th, and we received the Anglo-French warning, asking us to withdraw west of the Suez Canal a number of miles. On the 31st the Anglo-French attack against us began—the air raids began in the evening—and at the same time the withdrawal of our troops from Sinai to Egypt (i.e. across the Canal) began. Thus, in 1956 there was no opportunity to fight the Israelis. We decided on the withdrawal before the real fighting with Israel began. In spite of our decision to withdraw, the Israelis were unable to take a single one of our positions before we had left it . . . and Ben Gurion refused anything (i.e. cooperation with the British and French) until he had a written guarantee they would protect him from Egyptian bombs.[1]

There was enough truth in what Nasser said to make this version of history plausible to his people (and many others), and popular feelings in Cairo were then riding a crest that made uncritical acceptance of even the wildest concepts very easy. A commonly expressed Egyptian sentiment was that Israel had been protected by the West long enough and the Egyptians were now going to teach it a lesson.

Even if Nasser had been correct about 1956, however, his application of that lesson to the then prevailing situation rested on faulty assumptions about the states of readiness and capabilities of the two armies 11 years later. To what extent Nasser was misled by his army commanders or they were pushed into unwarranted postures by him is as yet unclear. Those of us in Cairo at the time were so surprised by the apparent confidence of the Egyptian military that in one telegram we commented that they acted as though they had a secret weapon of some sort. Washington immediately responded with a frantic telegram asking for details of the weapon. The intelligence community thought the Israelis clearly had the edge and had gone on record to that effect, but the Pentagon was very nervous at the prospect it might be called on to succor Israel, and even back then did not know where it would get the forces to do so. A collective sigh of relief went up when it became clear on 6 June that we would not be called on to intervene.

Nasser, then, was victim of his own propaganda about the Israelis. His willingness to accept his own preconceptions were strengthened by lack of contact and ready acceptance of pejorative stereotypes about the despised opponent. Six years later, in the Ramadan war, the tables were turned, and the Israelis became victims of *their* preconceptions about the Egyptians. This event has fascinated military writers, who had been largely hung up on the myth of Israeli infallibility, and a good deal of ink has flowed on the subject.

The Israel government established a commission (The Agranat Commission of Inquiry), which investigated the matter and found that the Israelis were surprised not because of any lack of intelligence but because they did not properly evaluate what they had. There was no shortage of information about what the Egyptians were doing, but the Israelis were prisoners of preconceptions about Egyptian abilities and intentions that made them reject the evidence before their eyes. They were convinced the Egyptians could not lay a hand on them.

The Agranat Commission found three reasons for this error in evaluation:

1. Stubborn adherence to "the conception," which assumed that (a) Egypt would not go to war against Israel until she was able to stage air strikes against Israel's major military airfields in order to paralyze her air force; (b) Syria would not launch a major offensive against Israel except simultaneously with Egypt. The commission noted that this conception was never properly checked and rechecked against the background of changed political circumstances and the acquisition of new weapon systems.

2. The head of the Intelligence Branch had assured the Israel Defense Forces (IDF) that it would have sufficient advance warning of enemy intentions to start an all-out attack. This assurance was the cornerstone of IDF defense plans, but there was no warrant for offering it.

3. In the days preceding the war, the research department of the Intelligence Branch came by an abundance of warning information but failed to evaluate it properly because of doctrinal adherence to the "conception" and willingness to explain away the enemy's deployment at the front lines—although it was uprecedented in its scale and direction—as evidence of a defense move in Syria and a multidivision exercise in Egypt.[2]

The Israelis found themselves in this mind-set because they had developed a theory of "secure borders" to justify retention of their military conquests in 1967, and that theory practically precluded the possibility of an attack. They were not alone in this respect. Our intelligence community, giving too much credence to Israeli intelligence, was caught almost as foolishly as the Israelis were. Indeed, the initial reaction of most of us who had been following the Near East for years was that the Egyptians and Syrians were insane to undertake such an enterprise against the overwhelmingly powerful Israel defense forces. Yet the Egyptians won a tremendous psychological and political victory, and had their command and control structure and their commanders been more flexible and responsive, they could have had a net military victory as well, instead of ending up with Israeli troops on the west bank of the Canal. Sadat knew what he was doing, and it was we who were the fools not to see it. We were all prisoners of a concept based on Egypt's miserable performance in 1948, 1956, and 1967, when its armed forces assumed forward postures they were unprepared to maintain in the face of determined enemy action.

In the past 20 years there have been a number of excellent studies of the phenomenon of surprise. The classic is Roberta Wohlstetter's *Pearl Harbor, Warning, and Decision* (Stanford University Press,

1962), which rigorously examines the American failure to perceive that the Japanese were about to attack. She uncovers, among other things, some truly pitiful examples of the lack of coordination among our different services. She records, for instance, that "The Navy had three conditions of alert, No. 1 being a full alert condition, No. 2 and 3 tapering off toward routine conditions. The Navy always went into a full alert and then tapered off. The Army's alert system worked in reverse. It started with an alert No. 1, which covered sabotage; No. 2 was designed for an air attack; and No. 3 was full alert." (Thus, when the Army declared alert No. 1, the Navy mistakenly assumed it was on full alert. Meanwhile, the Army saw no need to go on higher alert status because it had so much confidence in the Navy's ability to handle everything.) "The fact that Army and Navy alert practices in this respect had nothing in common was just one more detail in the picture of a respectful and cordial, but empty, communication between the services."

Interservice cooperation and coordination have obviously improved a great deal since those innocent days when our concepts of security were pretty rudimentary, but when the next military emergency occurs, we will uncover similar lacunae. Communications are still "cordial, but empty" on too many occasions, and interservice rivalries are still a factor in producing misunderstandings and mistakes. Furthermore, even when the rivalries are buried, mankind's tendency always to take the other fellow's perceptions and understandings for granted is augmented geometrically under stress.

More important to Wohlstetter's analysis, however, is the distinction between what she terms "signals" and "noise." Signals are defined as intelligence as to the enemy's intentions, and noise as false or ambiguous information that clogs the circuit and prevents proper reading of the factual information. Thus, in spite of our ability to decipher Japanese codes and an awareness that war was imminent, the information (and misinformation) we had was interpreted by the commanders at Pearl Harbor to mean the Japanese intended to strike somewhere south of Japan instead of to the east. They did not consider seriously the possibility of a strike at Hawaii because it was inconceivable to them that the Japanese would try it.

In June 1941 the Russians were caught napping by the German invasion in spite of the amazing series of warnings that were conveyed to them by one means or another, including a remarkably accurate report of German battle plans given to the Soviet military attaché in Berlin six months before the attack. Warnings came from the British and the Americans, from the Soviet master spy in Tokyo, Richard Sorge, and from other intelligence sources too numerous to mention here. All of them seem to have been treated by the Soviets as probable provocations. Stalin believed that the Germans would attack sooner or later, but he expected to receive an ultimatum from Hitler first and apparently intended to alert his army then and not before. As a result, the Red Army was not alerted in spite of the readily visible German military concentrations along the border and in spite of frequent German overflights and other activities an intelligence service would normally interpret as signs of an impending attack. The strength of Stalin's views on the subject was such that some local commanders at first prevented their troops from returning German fire for fear they would be responding to a provocation and would thereby give the Germans an excuse for attacking.

Few surprises have been quite as complete on such a vast scale as this one. Barton Whaley, in *Code Word Barbarossa*, concludes that the Wohlstetter model of noise versus signals does not apply fully here, because the Soviets were victims of a careful campaign of

deception mounted by the Germans. They did not lack clear, unambiguous information but chose not to credit it because it did not accord with their expectations, which were in part wishful thinking—they were not ready for a German attack, so there would not be one. Hitler had always issued ultimata in the past; therefore, they would have some warning, and meanwhile they must beware of provocateurs. Thus the Soviets were in prime psychological shape to be hoodwinked.

THERE are obvious factors of fatigue, group dynamics, rationalization, projection, wishful thinking, etc., which explain the phenomenon of surprise. There are obviously circumstances in which surprise is inevitable because one side does not have the means to know what the other is doing. There are numerous cases, however, where the information is available but is not acted on properly. In general, we hear what we want to hear, and we interpret events in ways that will support our preconceptions. It takes a massive and unequivocal change in an opponent's tactics, such as the Soviet invasion of Afghanistan, to convince us that those conceptions should be reexamined because they no longer explain what is happening. In the meantime, decision-makers tend to stick to comfortable hypotheses and close their minds to contrary views.

This tendency is reinforced when there is not time for full consideration of all the options and all the relevant information. This is all too common in the arena of national security affairs, and the drama of both foreign relations and military operations is how to reconcile the need for decisive and timely action with the need to know the facts and to make the correct decision. Decisions made in a hurry may be correct, but they may also be based on a superficial reading of insufficient information and the drawing of a premature conclusion as to what is at stake and how we must react. The Russians, for all their freedom from democratic restraints, seem more deliberate than we in their process of decision-making, and while this does not save them from error—witness Afghanistan—they at least give themselves some time for reflection; while our impatient poker players insist that the President slap his six-shooter on the table and declare that Judge Colt has won. As long as God was our patron and our resources limitless, we could do this with relative impunity. Theodore Roosevelt could bully the Sultan of Morocco because there was no way the latter could retaliate against the United States, and no one else cared much what happened to him. Today we could not get away with it because the world has changed, and so has our role.

To return to my original point, it has been my experience that even when there is ample time, the decision-making process routinely proceeds from imperfect understandings and preconceptions the decision-makers have about the nature of the problem, particularly when it becomes too important to be left to the experts. We then become prisoners of theories and rationalizations advanced to justify a given course of action which may have been decided on for good reasons but reasons which are essentially irrelevant to solving the problem at hand, e.g., domestic-political considerations which have influenced our Cyprus and Middle East policies. There is a high degree of institutionalized irrationality in this process, and while this is intuitively understood by many of the subordinate participants, those in charge normally suffer the illusion that they are proceeding in a logical and orderly way to resolve a problem. When it does not work, they blame circumstances or the actions of others; they rarely admit that in fact the fundamental assumptions of their policies are invalid and that they were victims of a misperception, willful or otherwise.

The common thread that runs through the

examples of surprise described above is one of miscalculation based on a set of perceptions about the behavior of the other fellow. In some instances these are national or ethnic stereotypes: "The Egyptians (or Jews, or Chinese, or Russians) are incapable of fighting a modern war." Sometimes it is a question of ideological imperatives—the British and Americans are capitalists seeking to get Hitler bogged down in Russia; therefore, their warnings about his intentions are not to be taken seriously. Sometimes it is a rejection of, or a failure even to consider, the unprecedented—the Japanese have never come as far as Hawaii before; it would be foolish of them to do so now. Common to such deliberations is an unwillingness to examine coldly the rationalizations on which the consensus is based, or an unawareness that they are rationalizations. Also common to them in many parts of the world is the devil theory of history: If something goes awry, it must be the fault of the colonial power, or the neoimperialists, or the Soviets, or the Arabs, or the Jews—any explanation that will permit evasion of the unpleasant realities of internal incompetence or unreliability.

Much thought has been given to prevention of such miscalculations. The favorite initial response is to recommend reorganization and restructuring of intelligence organizations and to recommend that there be some provision for a devil's advocate to argue against the popular consensus. While both of these may help, both are limited in effectiveness. The errors are human and tend to repeat themselves no matter who is in charge of the intelligence agency, particularly since he is likely to have the same type of people feeding him information that his predecessor had; and no matter how he moves them around, the total product has an institutional consistency. Furthermore, the analysts and directors of such agencies sometimes have their own intellectual axes to grind and may shape output accordingly.

As for the devil's advocate, he risks becoming a pariah if he effectively challenges a popular consensus. (It is easier if the consensus is unpopular or unappealing.) Few people have the courage to do that, and those who do are often made to pay for it by having their careers stunted. This may not be the perception from the top, but it is a lively one from the bottom. It is axiomatic that the man at the top can rarely know when he is unconsciously stifling dissent, particularly if he does not make a determined effort to ensure that dissent can be expressed freely, and few of us do so because dissent is usually unwelcome, even to the most charitable of us.

Even when dissent channels are open, there is no infallible way we can prevent misjudgments because they are endemic to the human condition. Roberta Wohlstetter comments:

> If the study of Pearl Harbor has anything to offer for the future it is this: We have to accept the fact of uncertainty and learn to live with it. No magic, in code or otherwise, will provide certainty. Our plans must work without it.

We would do better, however, if we educated our policymakers and military leaders more thoroughly to be wary of simplistic answers and more alert to the diverse character of the world's peoples and the inner complexities of some of their problems. An open mind that knows something about the other side is less likely to accept popular concepts uncritically. This will not solve the problem of groupthink, because the group has its own momentum that will carry even the clearest thinker with it, unless he wishes to isolate himself. It would, however, give the clear thinker better tools with which to work.

IT IS, of course, easier to point out the shortcomings than to provide the remedy, and it is difficult to reconcile the requirements of specialized, professional education with a broader understanding.

Doctors are so often among our political illiterates precisely because they do not have time to educate themselves beyond their professional field. Similarly, the Air Force pilot has so much to absorb in the way of professional skills that he has little time for intellectual pursuits. Nor, given the qualities we seek in a pilot, should we expect him to have much interest in intellectual matters. We want a fighter, not a reflective philosopher, in the cockpit.

If, however, he is going on to senior positions in the Air Force, he needs some sophistication. He needs to understand that international problems are complex, that he cannot project American behavior onto Iranians, that things are seldom what they seem, that American actions often look different when seen from abroad, and that it is a mistake to see everything bad that happens abroad as a manifestation of U.S.-Soviet rivalry.

Where does he get that broader understanding? Certainly not in American high schools, nor in most universities. Often it is possible to proceed all the way to a Ph.D. in happy ignorance of foreign languages or cultures, and without the slightest understanding of foreign affairs. After all, we have rarely thought it necessary to know about the outside world; it was up to them to learn about us—like the woman I saw on TV the other night brandishing a sign at the Cuban immigrants that said, "We speak English here."

We could afford this happy ignorance in our days of autarky. We are no longer in that blessed state. We have not been for a long time, but it took OPEC to bring it home to us. Our survival today depends on our showing some sophistication about the outside world and about the choices available to us in such places as Iran and Afghanistan. We cannot afford to be prisoners of historical myths, comfortable oversimplifications, and Procrustean concepts.

To my mind, the only place the Air Force officer is likely to get that sophistication is at a service school or a university. The number who can enjoy the latter luxury is limited. The burden will have to be borne by the service schools, and particularly the Air War College. This is difficult to do in an era when the emphasis is on professional skills and studying war. The decision to apply such emphasis has been conscious and deliberate, at the highest levels, and there is much to be said for it.

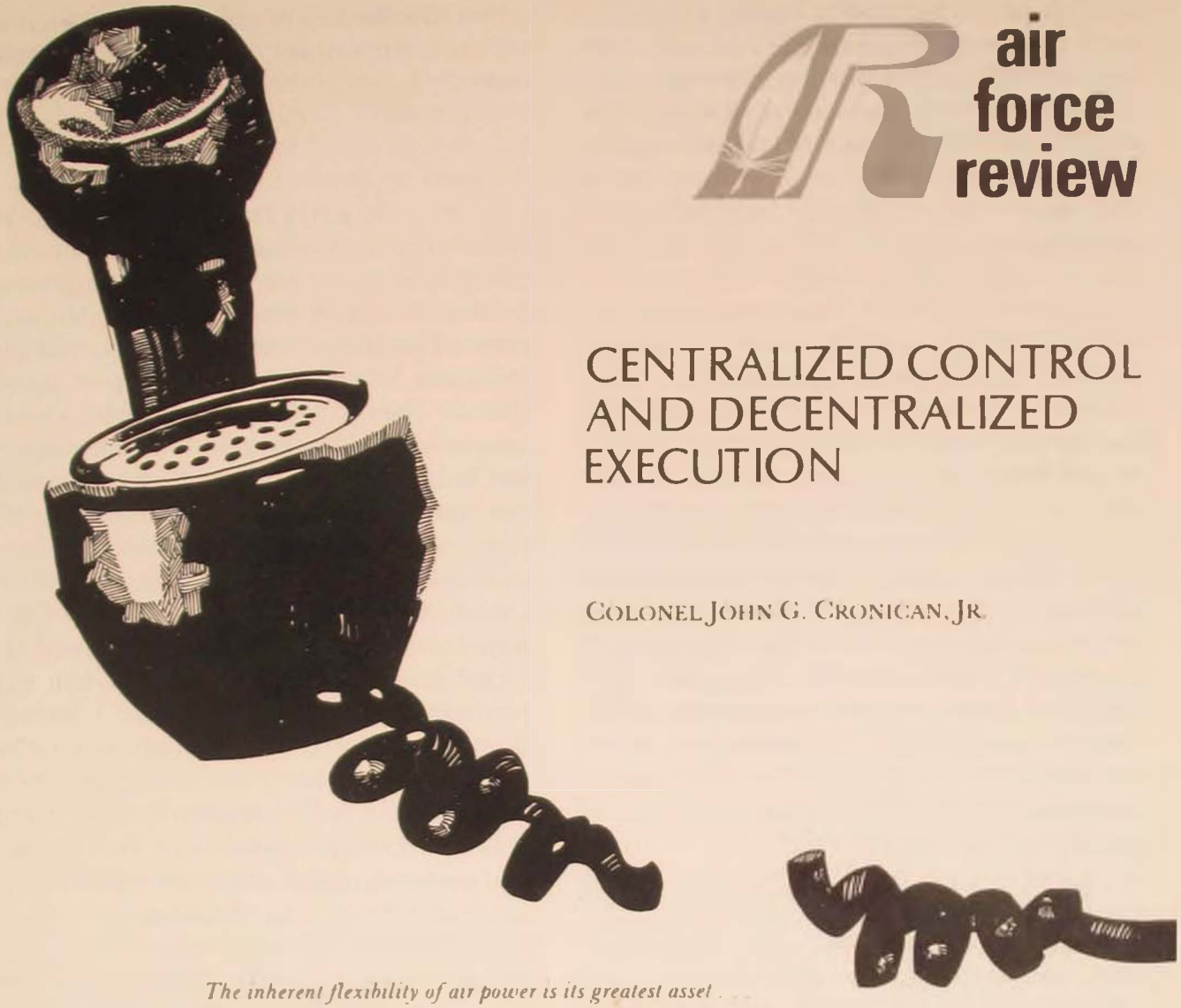
IT IS NOT for me, an outsider, to tell the Air Force how to use its resources in time and manpower, but we should always beware of throwing the baby out with the bathwater (an expression from pre-inside plumbing days). We are a nation of overreactors, and the problem in our society is always how to keep the swings between reasonable limits. Thus, I suggest the Air Force take another look at the pendulum and see if a gentle little adjustment is possible.

Air University (ATC)

Notes

1. *Al-Ahram*, May 23, 1967.
2. For a fuller study of this classic case, see Avi Shlaim, "National Intelligence Failures: The Case of the Yom Kippur War," *World Politics*, April 1976.

Photo courtesy of Department of the Navy, Office of Information, Washington, D.C.



CENTRALIZED CONTROL AND DECENTRALIZED EXECUTION

COLONEL JOHN G. CRONICAN, JR.

The inherent flexibility of air power is its greatest asset . . . Control of available air power must be centralized and command must be exercised through the Air Force Commander if this inherent flexibility and ability to deliver a decisive blow are to be fully exploited.[1]

THE characteristics and capabilities of air power—primarily speed, firepower, and mobility—enable air forces to use the principle of flexible employment. The principles of centralized control, decentralized execution, coordinated effort, common doctrine, and cooperation are unique to aerospace power. They are fundamental to the success of aerospace operations.[2]

During the relatively short history of the United States Air Force as a separate service, the concept of centralized control and decentralized execution has been a fundamental axiom of Air Force doctrine. The loss of command, control, and communications (C^3) in a theater of operations such

as Europe in the 1980s would potentially render air power impotent. C^3 systems are essential to the implementation of strategy, control of forces, and employment of weapons in modern warfare. These C^3 systems support day-to-day operations, rapid assessment of indications and warning information for decision-makers in periods of increased tension and impending conflict, accurate situation monitoring and allocation of resources in crisis situations, and vigorous conduct of military operations in wartime.[3]

One of the most difficult problems that confront any commander who has committed his forces in accordance with a well-developed plan is to alter the operation in light of changing circumstances. Sun Tzu (circa 300 B.C.) recognized the inherent difficulties, both intellectual and physical, and repeatedly emphasized that the nature of war is ceaseless change.[4] Thus we have historic evidence of early recognition of the need for near-real-time C^3 systems to control the battle. Likewise, Carl von Clausewitz understood the need for real-time battle management when he wrote:

> . . . [the strategist] will draft the plan of war, and the aim will determine the series of actions intended to achieve it. . . . Since most of these matters have to be based on assumptions that may not prove correct, while other, more detailed orders cannot be determined in advance at all, it follows that the strategist must go on campaign himself.[5]

Today, technology permits the modern strategist to go on campaign through the use of real-time C^3 systems. The success of the current United States military premise—to fight outnumbered and win—is contingent upon the interoperability and synergistic attributes of our combat C^3 systems. Inasmuch as an effective C^3 system is advertised as a force multiplier, a disrupted or destroyed C^3 system must be designated a force divisor. Accordingly, combat success or failure, especially in Europe, could be totally hinged on the effectiveness of command and control and its supporting communications networks.

COULD communications be the Achilles' heel of our NATO war-winning strategy and our ability to fight outnumbered and win? In his *On War*, Clausewitz defined a center of gravity as "the hub of all power and movement, on which everything depends. That is the point against which all our energies should be directed."[6] If one respects the Clausewitzian notion of centers of gravity, then one must concede the plausibility of a critical weak link. Could communications be our weak link? Are there weaknesses in the United States and North Atlantic Treaty Organization (NATO) communication networks? The following paragraphs will suggest that the answer is yes. Too often, acquisition of adequate communication systems has been deferred in favor of funding for "shiny airplanes" and exotic weapon systems during the annual budget competition. This is somewhat understandable when one has to defend the lethal effectiveness of a telephone system. Yet, recently, the combat importance of communications has grown. There is hard evidence that the Soviets have targeted the NATO C^3 area intensely.

For theater war, Soviet doctrine stresses joint operations: intense offensive strikes at war's outbreak—conceivably conventional, conceivably nuclear, or conceivably a combination of both—to attack and take out key enemy military targets: airfields, air defenses, command and control centers, nuclear storage sites, etc.[7] One aspect of Soviet doctrine that reveals the seriousness of their efforts is the emphasis they place on assuring the continued operation of their own command, control, and communications while attacking the enemy. Their doctrine of radio-electronic combat (REC) indicates a strong

commitment to the coordinated use of electronic and lethal means to degrade the enemy's ability to communicate. They have thus identified a crucial factor in the ability of modern, highly integrated forces such as ours to fight, and they have focused on means to reduce the effectiveness of such forces.[8]

In practice, Soviet radio-electronic combat doctrine proposes to destroy a significant portion of our communications capability through direct attack and collateral damage; disrupt another major portion of our communications through electronic warfare means; the remaining portion of our communications networks is intended to fall into disarray through chaos and uncoordinated activity. Direct attack may take the form of sabotage on existing microwave radio relay sites, satellite earth terminals, and major switching centers. Radio equipment in the high frequency, very high frequency, ultrahigh frequency, tropospheric scatter, and microwave realms is particularly vulnerable to jamming, spoofing, and exploitation. U.S. Senators Sam Nunn and Dewey Bartlett have observed that a final implication for NATO of the new Soviet threat is the (resulting) inadequacy of the alliance's current command, control, and communications capabilities, which one senior NATO commander recently declared to be "the fundamental deficiency with NATO today."[9]

The fragility of our communication networks cannot be totally credited to our adversaries. We are also to blame for many of the inherent vulnerabilities. In an article by SAC Commander General R. H. Ellis, USAF, it was stated that tactical communication equipment used by land, sea, and air forces of various NATO nations usually cannot directly communicate with corresponding equipment used by other nations because of differences in operating frequencies, modulation, data rate, or encryption method. This inability generates serious handicaps in the planning and conduct of combined operations.[10] The situation will tend to worsen significantly as several NATO nations place greater dependence on automated command and control systems. The significant vulnerability evolves around the lack of extensive common-user communication networks and the lack of standards and interoperability protocols for existing dedicated digital communication systems. For commercial and national reasons, allied communication equipment has been designed to be less than totally interoperable. Design bureaus jealously guard command, service, and national prerogatives at the expense of interoperability. In good faith, each activity optimizes on national-based operational and commercial objectives that invariably are diametrically opposed to the design compromises necessary for multinational interoperability.

To compound the situation, the current NATO communication supporting networks are a conglomeration of much-outdated equipment, some of it dating to the 1930s. For example, the telephone exchange on Ramstein Air Base, Germany (providing telephone service for Headquarters Allied Air Force, Central Europe and Headquarters United States Air Force in Europe) was installed in 1939. Much of the communication circuit routing from Supreme Allied Commander, Europe/United States Commander in Chief, Europe down to major subordinate commands of national forces traverse single thread transmission networks and switching centers. Any single point failure in such a network will isolate higher-level commanders from vital information and will disconnect lower-level commanders from timely and coordinated direction. Today, in NATO, alternate routing, reconstitution assets, and adequate wartime backup equipment are severely limited. In 1976, major USAF communication reconstitution assets in the form of the 2d Combat Communications Group (then named the 2d Mobile Communica-

tions Group) were regarrisoned from Europe to the continental United States (CONUS) as a result of being administratively catalogued as "support forces" in the context of the Nunn Amendment. The value of pre-positioning communication reconstitution assets in Europe has been analyzed and reanalyzed with positive conclusions since 1976. However, to date, no known positive action has been taken by USAF or other NATO activities that has resulted in pre-positioning significant amounts of critical wartime reconstitution assets in the NATO forward area.

One can attribute the foregoing to what is called the peacetime mentality of Washington-based planners and program/budget decision-makers. These high-level bureaucrats, both inside and outside the Department of Defense (DOD), are often unable to extrapolate from the "good times," which are defined as CONUS communications during periods of peace and tranquillity, to "bad times," which includes the chaos, fog, and friction of all-out coalition warfare in Europe. On occasion, severe communication problems do occur here in the "land of plenty," albeit with few if any lessons learned. For example, the *Boston Globe* reports:

> WASHINGTON—When the nuclear accident at the Three Mile Island reactor occurred, Nuclear Regulatory Commission officials in Washington quickly discovered that they had a serious communications problem. Once the word of the accident got out, phone lines into the Harrisburg area were so overloaded that nuclear power officials had difficulty reaching their own aides on the scene to determine the extent of the accident and of the risks involved.[11]

How much worse will the communication problem be in time of war? The fact is that there is ten times as much communications equipment available from Washington to Harrisburg as from Washington to our component commanders in Europe.

Why is it so difficult to see our obvious vulnerabilities? The answer is manyfold. Among the contributing factors are the following:

(1) that U.S. military and civilian communicators provide excellent CONUS communications under wide-ranging conditions with little or no fanfare. Americans are accustomed to a plethora of outstanding communications. They cannot conceive of the communication nightmare that exists in peacetime Europe today, much less in wartime Europe.

(2) CONUS and NATO exercises use large numbers of additional, specially engineered (engineered months in advance), commercially leased circuits to augment military communications during joint tactical exercises.

(3) Military communication engineers and survey teams work months in advance planning and siting detailed exercise communications. Because of this additional effort, exercise circuits rarely fail. Such a luxury would not be available in wartime.

(4) Additionally, high-level emphasis is placed on high-visibility areas to ensure that there are no failures in communications.

(5) Exercise communication systems are provided with on-site backup equipment and extensive redundancy in circuit routing and system design. This is typically uncharacteristic of real world, frontline communication networks. The theory is that tactical exercises are too expensive to permit disruptions due to communication outages.

(6) Many real world war planners have no idea of the magnitude of resources necessary to execute actual combat. Peacetime contingency plans that are executed often list in the Communications Annex—"Communications will be provided as required." And communicators dutifully marshal their limited assets to put on a good show for the operators, thus lulling the operators into a feeling of false security.

(7) Other decision-makers are lulled by Korean War and Southeast Asian (SEA) experiences. Our communications in Korea and SEA were never targeted by the enemy—they gained too much intelligence value from exploiting our clear text messages. With the increased use of U.S. and NATO encryption capabilities, Soviet doctrine now places tactical communications on the high-priority target list.

(8) Washington decision-makers equate firepower, sea power, and air power and then set about in the name of economy to treat service communication needs as common, with identical operational requirements and characteristics. For example, the Air Force was forced to acquire overspecified TRI-TAC switches, which restrict mobility while increasing manpower and training requirements. As a result we may win the peace and lose the war.

The FY80 DOD Report appears to recognize the essentiality of C^3 systems. It states:

> The war-fighting capability of our armed forces and of our allies must not be compromised by ineffective or vulnerable C^3I systems. Interoperability of U.S. and Allied systems is vital to timely and unambiguous assessment of the situation and to military operations in a NATO/Warsaw Pact conflict.[12]

The report then supports several technically exotic C^3 systems aimed at resolving certain deficiencies in the future, e.g., the TRI-TAC Program (initial operational capability or IOC—1984, JTIDS (IOC—1985), Combat Net Radio (IOC—1986), Ground Mobile Forces Satellite Terminals (IOC—1983), General Purpose Satellite Communications System (IOC—1987), etc. However, the report fails to mention that those plans in the NATO Long Term Defense Program to make NATO C^3 systems compatible with national tactical C^3 systems is targeted for 1995.

AT THIS point one has to ask what can be done in the near term when faced with the dilemma as described? The answer is *plenty*. My purpose is to show that Air Force principles of centralized control and decentralized execution are communication dependent and that U.S. and NATO communications are vulnerable to catastrophic failure. My objective is to get recognition for this potentially dangerous situation, especially the attention of Air Force operations personnel. Once recognized, the vital support needed from the "operators" will be facilitated. Additionally, there are several quick and low-cost actions that can be taken contingent upon "operator" support.

The first low-cost action is that the Air Force should start to think with a realistic, war-winning mentality; recognize that war is feasible and the foregoing vulnerabilities are real. The operator must recognize the "first team" role of the Air Force communicator. Stop proliferation of communication systems that do not interoperate; appoint a single manager for all Air Force communications including combat communications. Make communication systems technically compatible—do not rely on buffers and unique interface devices. Cut through all Air Force command parochialisms and designate one senior officer to manage all communication and interfaces; then assign appropriate responsibilities and authority (including freedom of action) and hold the senior officer accountable. Make plans for the real contingency of going to general war next week, next month, next year. If current managers believed in such a possibility, many actions would be executed in a radically different manner and at a greatly accelerated pace. Operators need to identify their minimum essential information requirements at a minimum essential number of locations.

Second, plan seriously to be in a communications-out situation for long periods during a NATO-Warsaw Pact confrontation. Have plan "Bs" ready.

Third, work interoperability problems now

with a new willingness to change U.S. standards and designs rather than always expecting our allies to do the compromising. Interoperability must be a mandatory operational requirement. The new authority vested in the single communication manager will greatly facilitate alternative trade-offs and international compromise.

Fourth, think NATO and coalition warfare. Stop thinking unilateral United States and that the U.S. solution is always, de facto, the correct solution.

Fifth, ensure that applicable NATO standards are developed in a timely manner; compromise, where necessary, in the interest of a stronger NATO. Where standards are established, build rapidly toward compliant equipment and systems.

Sixth, recognize and accept the risk of building less than optimum communication systems; in the past, "best" has been the enemy of "good," "adequate," and "effective."

Seventh, plan and justify the early return of communication reconstitution assets to Europe. Spain and Portugal would make ideal storage locations. Proliferate communication systems that interoperate and provide for many intersystem interface points; design survivability through extensive parallel independent networks with interoperability planned ahead. In this context, negotiate for expanded use of the German *grundznetz* system; harden other NATO and U.S. networks as required. Plan and design tactical interconnect points along all backbone communication routes in Europe, both military and commercial. Phase one of such an effort is to catalog and map the many allied systems that exist in isolation today.

Eighth, plan for and practice war damage, sabotage, electronic warfare, and disruption caused by failures to communication systems. Exercise the C^3 systems with total imagination and no-holds-barred. Practice extensive reconstitution to the extent of marshaling reinforcements from CONUS.

Ninth, above all, evolve communication improvements. Radical changes in communication systems leave our NATO allies far behind and only hurts the U.S. Air Force in the long run. On 25 October 1979, David Israel, Worldwide Military Command and Control System/Systems Engineer, Defense Communications Agency, stated that "there is a lack of consensus in the fundamental truths related to Command and Control." Until these truths become self-evident, it is risky to propose radical changes to communication systems. Radical changes only exacerbate communication interoperability and effectiveness in a combat environment. The bottom line: operators should be wary of promises related to wondrous communication capabilities in the wartime environment.

MY PREMISE has been that C^3 systems are to serve the operator. I have solicited operator assistance to understand and support command and control and particularly its supporting communication so it could better serve the operator in time of conflict. It cannot be stated strongly enough that operator understanding and support of C^3 systems are absolutely essential. Command and control decision-makers must be convinced to provide their support for war-winning communication improvement programs. Timely communication improvements with emphasis on survivability and interoperability are vital to the viability of tactical C^3 in the NATO environment. With adequate communication we should have effective command and control of our forces. With effective C^3 we should be able to efficiently employ the principles of centralized control and decentralized execution. Through proficient management of our forces and the inherent flexibility of U.S. and NATO air power, we will have the capability to fight outnumbered and win.

Brussels, Belgium

Notes

1. U.S. Army Field Manual 100-20, *Command and Employment of Air Power*, 1943, p. 5-1.
2. USAF Draft Manual 1-1, *Functions and Basic Doctrine of the United States Air Force* (Washington: Government Printing Office, 1978), p. 5-2.
3. Harold Brown, Secretary of Defense, *Department of Defense Annual Report, Fiscal Year 1980* (Washington: Government Printing Office, 1979), p. 234.
4. *Sun Tzu The Art of War*, edited and translated by Samuel B. Griffith (New York: Oxford University Press, 1977), p. 52.
5. *Carl von Clausewitz On War*, edited and translated by Michael Howard and Peter Paret (Princeton, New Jersey: Princeton University Press, 1976), p. 177.
6. Ibid., pp. 595-96.
7. *Supplement to the Air Force Policy Letter for Commanders*, August 1978, p. 16.
8. Ibid.
9. Sam Nunn and Dewey F. Bartlett, *NATO and the New Soviet Threat* (Amsterdam, the Netherlands: Jules Perel's Publishing Company, April-May 1977), p. 8.
10. R. H. Ellis, "The Air Defense of the West — A View from NATO's Central Region," *Supplement to the Air Force Policy Letter for Commanders*, September 1977, p. 4.
11. *Boston Globe*, April 1, 1979.
12. Brown, p. 234.

in my opinion

"The good company has no place for an officer who would rather be right than loved, for the time will quickly come when he walks alone, and in battle no man may succeed in solitude."

S. L. A. MARSHALL

COHESION AND READINESS

MAJOR FREDERICK J. MANNING, USA

THE BARRAGE of charges, countercharges, and general finger pointing that followed the ill-fated rescue attempt in Iran unfortunately brought to center stage a major concern for the U.S. Armed Forces in the eighties: group morale or group cohesion.

As an Army officer writing primarily for an Air Force audience, perhaps I should explain my feeling that I have something of interest to relate on this subject. My own training and experience have been as an experimental psychologist. About two years ago, I joined forces with another psychologist whose research on "The Boys in the Barracks" kept the *Army Times* in demand for several weeks during 1979.[1] We and four very capable noncommissioned officers (NCOs) form a small unit in Heidelberg, Germany, with the imposing name of the United States Army Medical Research Unit, Europe. As a special foreign activity of the Walter Reed Army Institute of Research, we represent a deliberate attempt by the Army's Medical Research and Development Command to leave the laboratory and acquire firsthand knowledge of the medical problems besetting a deployed army. As it turned out, it does not take much imagination to see that many of these problems beset deployed navies and air forces as well. Of course, the fact that the only two scientists in our unit are psychologists has had more than a little bearing on which medical problems have received attention over the past eighteen months. This was, of course, not unforeseen; our official mission is to analyze the factors influencing the incidence and spread of psychiatric casualties, performance breakdown in combat.

As a mission statement, this is all quite clear. Still, as numerous nonscientists have pointed out to us, often with some amusement, one might view the peacetime study of combat breakdown as very difficult work at best, and downright silly at worst. We disagree, naturally, but perhaps our reasons for disagreeing will be much clearer with a little historical perspective.

NEUROPSYCHIATRIC, or NP, casualties do not have a very long history, but they have had many different names. The Surgeon General of the Union Army during the Civil War described a condition he termed "nostalgia," but it was not until World War I and "shell shock" that the symptoms or behavior indicating inability rather than unwillingness to function came to be seen as a legitimate medical concern. World War II brought us combat exhaustion and combat fatigue and brought them in great quantity, despite preinduction screening that resulted in the rejection of almost two million men for emotional and mental reasons. The services still separated nearly one-half million men for psychiatric problems during the course of the war. A good rule of thumb seems to be that psychiatric casualties will occur in a ratio of about one to every four wounded in action. That is not infallible, however, as certain types of combat tend to produce more such casualties than others. Of particular relevance to us in Europe is the fact that heavy artillery or aerial bombardment and protracted defensive operations seem to be conditions particularly conducive to these NP casualties.

On the other side of the ledger, it became clear during World War II that interpersonal relationships—call it group cohesiveness, group identification, or group support—were of overwhelming importance in the prevention and cure of these casualties. I cannot say it any better than General S. L. A. Marshall said it:

> I hold it to be one of the simplest truths of war that the thing which enables an infantry soldier to keep going with his weapons is the near presence or presumed presence of a comrade. He . . . is sustained by his fellows primarily and by his weapons secondarily.[2]

As a research unit charged with investigating performance breakdown in combat, our approach should have been obvious. To be honest, though, we did not start our work in Europe with a conscious bias toward assessing group support, unit cohesion, and interpersonal relations. However, we have been practically forced to address this topic in each of the projects we have undertaken. The result is our view that most serious problems in the command climate today are the implicit and unspoken division of command versus all others (barracks-dwellers, dependents, and often NCOs) and the total absence in all of these groups of a wider community of shared interests, beliefs, values, and commitments to anything other than the self. In fact, I believe the term *unit* is currently a misnomer in all but the most superficial sense.

The observations and situations that have led me to this conclusion came from three major and quite different areas we have investigated since I have been in the United States Army Europe (USAREUR): attrition, drug overdoses, and continuous operations by field artillery. Much of the artillery project is reported elsewhere,[3] although the observations we made in literally living with a battalion for six months contributed greatly to my thinking. Let me therefore concentrate on the other two projects, involving as they do what might be called peacetime psychiatric casualties.

To people interested in group cohesion and interpersonal bonds, the loss of a battalion a month from Europe on administrative discharge alone seemed like an obvious area for investigation, and a year ago last April, we sent three members of our team to Rhein-Main Air Base to find out who made up this battalion and how it was that they could not make it in the Army.[4] To make a long story short, it turned out that they were not the flower of American youth; what has been surprising to us, though, was that they were not so very different from the rest of the Army either, in their backgrounds, their opinions about the Army, or their complaints. Almost all had enlisted assuming that they would return to the civilian job market with coveted skills. Some had no concept at all of what to expect in the Army and are now leaving, angry with the Army but happy to go. A much larger group was disappointed both with the Army and with being discharged. They had enlisted with far fewer illusions, expecting discipline and hard work, but it just had not worked out. Basic training was cited almost across the board as the highlight of their service. They liked the structure (knowing what was expected of them every minute), the obvious good planning, and the feelings of accomplishment and camaraderie they had felt there. Now our subjects presented themselves as alone and scared, though none used those terms. Few reported any positive feelings toward their units at all, and the constantly recurring theme in talking to these soldiers or ex-soldiers was that of an uncaring leadership, insensitive to human problems, and concerned only with mission completion.

I am not so naïve as to take these contentions at face value in view of their source, but I have kept them in mind over the past year as hypotheses to be checked and evaluated. On that score, I would say that they were batting .333. Company commanders are not uncaring and insensitive to human problems, but they are concerned almost exclusively with mission completion, which they view as totally incompatible with what they call "troop welfare programs." Here, of course, is where I differ with them. General Marshall has said it well: "The good company has no place for an officer who would rather be right than loved, for the time will quickly come when he walks alone, and in battle no man may succeed in solitude." Do I want company commanders to spend more time "counseling" their problem children?

Maybe; in some cases, yes. But I would rather see them do some things that might eventually stem the flow of such problem children into their offices.

However, before I spell those things out, let me discuss a second study. We are working on another research project which investigates much different symptoms but is basically studying the same disease. The project involves drug overdoses. We want to know if there are personalities or social environments that put people at high risk; and, by implication, what can be done about it.

Our procedure is a simple one. We are notified as soon as any active duty soldier is put on the seriously ill list in any medical facility in USAREUR with a diagnosis of suspected drug overdose. We then interview friends, associates, co-workers, and leaders of the casualty, screen medical and personnel records, and perhaps talk to the casualty himself, if he lives. Results to date have surprised us a little with their consistency. The typical casualty has been a good to excellent soldier, more often outstanding than a dud, a specialist 4, but a little older than his peers in the barracks. He is not an addict, but it is not his first use of heroin; he is not a "barracks rat," has a car and a girl friend, and is well thought of by both his peers and chain of command. His leaders, from squad leader to company commander, are surprised and shocked, often insisting to us that there has either been some mistake or that somebody surely put something in his beer.

Our unit profile, on the other hand, has been a model of inconsistency. We have visited a dozen different kinds of units, from isolated air defense artillery sites to a finance company downtown in a major city. Commanders and their policies have been just as varied, ranging from those who have gone to extraordinary efforts to provide for the comfort and recreation of their men to those who saw their major job as busting people. Perhaps the most obvious point to all this is that drug use, even the use of hard drugs, is not the exclusive province of a perverted minority. It is, as Ingraham[5] puts it, a way for soldiers—perfectly normal soldiers—to achieve a feeling of group membership and belonging. The vast majority of our first-term soldiers—young high school graduates or not-quite grads, lower or lower-middle class, working at their first real job—would never take a regular nine-to-five industrial job in a city 500 (much less 5000) miles away, where they have no friends or relatives and do not know anything about the local residents.

The Army, Navy, and Air Force do precisely this: they pick them up willy-nilly and drop them into a very transient environment in which they are called on to manage large blocks of time away from their homes, families, and friends. That time needs to be filled in the company of other people, and if a young soldier is to find a social support group for himself, it will have to be created by generating conversation and activities with the same limited and diverse group of other transients who comprise his work group. He does not have much time, thanks to constant transfers and rotations, and he does not generally possess elaborate social skills or leisure time habits. Drug and alcohol use fit the bill perfectly here, offering a variety of distinct shared activities and a unique group history that can create a sense of comradeship literally overnight, and effortlessly. Furthermore, periodic efforts to suppress use by search-and-seizure, health and welfare inspections, and urinalysis provide a real, well-defined threat that results in increased cohesion and solidarity among the persecuted.

Is drug use good for morale? In one sense, I *am* saying that it is, but only if we limit ourselves to individual morale. The social networks formed around drugs, unfortunately, almost never include all members of a work group; and they seldom include any significant mixture of rank. In fact, drug use literally splinters the social organization of

the unit, setting off users from nonusers, sowing distrust, and not-so-subtly undermining respect for and confidence in the chain of command.

I DO NOT have to go any further in defining the problem, but what can be done about it? If my analysis of the positive aspects of drug abuse is correct, then it follows that a successful prevention program would seek to provide alternatives for group identity and the sense of belonging now provided by drug use. It would focus on destroying the present we-versus-they structure and creating strong group loyalties in the small work groups of which each soldier is a member. This will of necessity include young and old, single and married, barracks-dwellers and their leaders, NCOs and officers. It cannot be done by orders and directives. One cannot buy it, and it cannot be given away. It must be built, as a by-product of activities that fill large blocks of time and involve minimal skill, so that anyone can participate, and specify some more or less well-defined outsiders or, even better, opposition. If we are serious, we would see for example, that individual physical fitness requirements deferred to unit fitness requirements; soldier-of-the-month awards deferred to unit-of-the-month recognition; individual and group travel programs would defer to unit travel. We could go so far as to make some efforts to rearrange family housing to maintain unit integrity. We certainly consider it worthwhile investing time—even duty time—in some form of competitive group activity where the basic unit is the work group. A comprehensive sport program is one possibility, although only one. If the program were comprehensive enough so that everyone could find something to do reasonably well, and if everyone participated—single and married soldiers, senior NCOs, and maybe even dependents—large periods of time would be used in activities that could generate conversation and camaraderie among members of the unit and provide alternative social alliances in turn. It is one thing to tell squad leaders and platoon sergeants to visit their men in the barracks—but they have to have something to say when they get there, something that does not immediately put them in the role of night watchman or cop.

This program must not be seen as a troop welfare effort but rather as an essential part of the unit's mission, a part that will not only improve readiness by cutting into attrition and drug and alcohol use but will also provide the unit with the strongest weapon against the stress of combat: loyalty, trust, and commitment to one another.

U.S. Army Medical Research Unit, Europe

Notes

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STOP THE HEMORRHAGE OF TALENT

LIEUTENANT COLONEL BERNARD WRAY, USAFR

IN THE bitter aftermath of the unsuccessful Iranian rescue mission, one positive result has been the great interest expressed by the media and the public in the ability of our armed forces to face up to the difficult power struggle ahead and in the critical issue of whether we have enough high-quality personnel to carry out essential missions across the globe.

Ironically, only a few weeks before the abortive rescue mission, the serious news that for the first time in fifteen years the Navy had to remove a ship, the U.S.S. *Canisteo* (AO99), from operations because of a shortage of key crew members rated no better than a short column on a back page of the *New York Times*.[1] The *Canisteo*, an oiler, had lost many veteran noncommissioned officers (NCOs) who had left the Navy, and there were not enough boiler technicians and machinist mates to run the ship. It is equally interesting, that after some weeks, several NCOs were assigned on temporary duty to the *Canisteo*, with the task of training young seamen to operate the boilers and other technical equipment. This incident serves to underscore the severe retention problem that the armed services are facing.

Only recently Admiral Thomas B. Hayward, Chief of Naval Operations, testified before Congress that a "hemorrhage of talent" had already reduced the combat readiness of many ships and air squadrons. Admiral Hayward admitted that the Navy is approaching the point where it has no realistic alternative but to consider standing down some ships and aviation units. He stressed, as have many other responsible leaders, that this serious brain drain stems in large part from the failure to pay seasoned NCOs for their hard-to-acquire skills and for the unique deprivations, especially in terms of family life, that go with military service.

In a devastating report, former Secretary of Defense Melvin R. Laird stated categorically that the President, Congress, and the public have failed to honor a commitment made at the time of the ending of the draft in 1973 to provide a decent standard of living and a meaningful quality of life for the men and women who have volunteered for duty in the armed forces and for their families. Laird further stated that the nation has reneged on its commitment and is failing to provide a decent and competitive standard of living for armed forces personnel.[2] Indeed, in the strongest indictment that has yet appeared in print, he calls the failure to retain a requisite number of those completing their second and third terms "devastating."

muffling the drum

Until now, the response of the President, in the form of a memo to Defense Secretary Harold Brown and top Pentagon leaders, told them to stop being so critical about military pay, retention, and combat readiness. The President said that the constant drum of criticism from top military officials about pay and readiness hurts morale.[3]

To my knowledge, no gag order has ever succeeded, either in solving a problem or in quieting people who are concerned with the underlying problem. All too many military leaders in the past have paid scant attention to industrial relations and employee relations problems. Only now, when double-digit in-

flation at a rate of over 18 percent per annum is squeezing armed forces personnel, especially NCOs, to the wall, do we suddenly realize that the armed forces are no longer competitive in compensation with their competitors for skilled and experienced people. Those individuals who form the backbone of the NCO cadre and provide a reservoir of technological skills and long years of practical experience necessary to operate and maintain our sophisticated weapon systems are now leaving the armed services in record numbers. Remember, I am not talking about first-termers, whose attrition rate since 1976 has been almost 75 percent, but rather about NCOs at the eight, nine, and ten-year marks, whom it will take a decade to replace.[4] At this rate, where will we be in 1990?

From a political standpoint, the President must face some difficult choices. He has been in the midst of a presidential campaign, where it was fashionable to orate about cutting spending, balancing the budget, and showing fiscal restraint.[5] But with the bad news from Tabas, Iran, the President is going to have to answer the media when it questions him about whether the armed services are retaining enough high-caliber personnel to carry out missions around the globe: on carriers like the *Nimitz*, which was involved in the rescue mission, as well as in amphibious and air units. He may be hard-put to explain a retention rate in the Air Force among second- and third-term personnel that fell from 75 percent to 59 percent or in the Navy that fell from 64 percent to 45 percent. These statistics speak for themselves.

threat of military unionism

Many workers in the private sector who have been hit hard by this inflation, especially in those areas of the nation traditionally nonunion and right-to-work, have been turning in increasing numbers to union organization. The National Labor Relations Board reports a marked increase in union organization in the Sun Belt. Industrial relations experts feel that there is a direct correlation between media reports of union contracts keeping union members even with inflation and the new-found popularity of unions in traditionally nonunion areas.

Nevertheless, there are no signs that military unionism is being looked to by members of the armed forces as a solution to their problem. In addition to the ban on military unions and on armed forces members joining military unions, as well as banning military commanders from engaging in collective bargaining with military unions, there is simply no union willing to approach the monumental financial and manpower burden in organizing the military.[6] Very substantial technical labor problems are involved even in defining an appropriate unit in the armed forces, in determining what showing of interest would have to be produced on signed authorization cards by the petitioning union, or in determining who would be included in the appropriate bargaining unit and be declared eligible to vote.

While I do not see military unionization as a practical approach or alternative, I would only caution that the direct forerunner of the postal strike of March 1970, which led to the creation of an independent Postal Service, was former President Nixon's action in denying a 4 percent pay raise to the then underpaid postal workers in the name of "fiscal restraint."[7] The collective bargaining procedures that have ensued since 1970 have made the postal workers the highest paid federal employees.[8] Labor history has shown time and again that employees who feel exploited and bereft of dignity will do strange things. I do not see a move to military unionization in the short run, but allowing dissatisfaction and unfair conditions to fester can ultimately produce the unexpected.

The public has now been saturated with

media coverage on the terrible inequity in present military compensation and the family suffering that it has produced. One need only read the series "Serving the Flag at the Poverty Level," which appeared in a daily newspaper with the highest circulation in the nation, to realize that the general public now understands the problem and wants a fast solution.[9] The changes in the administration and in the chairmanship of the Senate Military Affairs Committee have already produced very strong indications that the present catch-as-catch-can compensation system can no longer be allowed to sap the military of those trained noncommissioned and junior officers whom the nation needs most. They will not accept a penny-pinching, second-class existence in an inflationary era. Change must come now.

a new compensation package

The public and the media realize that military pay has not kept pace with inflation, and this imbalance is driving many high-quality people out of the service. As a nation we are very much troubled about our security. We want a strong military and do not want to risk allowing our armed forces to deteriorate.

There is a way to stop this deterioration and turn the desperate situation around in short order. In fact, the machinery already exists, not only in the private sector but in one of the largest federal agencies. It could be adapted to the armed forces in a month, given the support of the Congress and the President.

I speak of those magic words now contained in hundreds of private sector contracts and in one federal contract, namely, the cost of living adjustment (COLA). It is to the credit of an enlightened Postal Service management and a group of Postal Union leaders with great foresight that ten years ago they foresaw just how important this economic machinery would be to the workforce. Each postal employee covered by the collective bargaining agreements with management, basically clerks, carriers, mailhandlers, and rural carriers, get COLA adjustments when the new Consumer Price Index (CPI) is issued quarterly. The base salary schedules provided for in the postal agreements are increased one cent per hour for each 0.4 of a point increase in the applicable index above the base index of June 1978. For employees not paid by the hour, there is a formula for converting the cost of living adjustment. For example, if the increase in the CPI from June 1979 to September 1979 was 1.6 points, all pay scales covered by the COLA would be increased by four cents per hour or by a corresponding increase for those employees not paid by the hour.[10]

In 1978, postal workers received $1518 as a cost of living adjustment, and by agreement of the parties, this COLA was incorporated into their basic annual salary. In 1979, there was a $1477 cost of living adjustment above a regular increase of 3 percent of the basic annual salary. If inflation continues at its present rate, this COLA may double, since there is no cap on it. It is not likely that the Bureau of Labor Statistics, Department of Labor, which issues the quarterly CPI would have any difficulty in providing the Department of Defense with full data and conversion formulas needed to incorporate quarterly rises in the CPI into military pay raises.

Thus, not only has private industry made widespread use of the machinery of the cost of living adjustment but so has one of the largest employers in the federal sector. Indeed, within the month of April 1980, the steel industry and the United Steel Workers (AFL-CIO), as well as the giant International Harvester Company and United Automobile Workers, have signed national agreements with cost of living provisions that could range from 30 to 37 percent increases over the next three years, depending on the rate of inflation.[11]

I point to these very recent collective bargaining agreements and their use of the COLA machinery out of my sense of urgency. We have had too many pay studies, too many pay bills that never had a chance, too many promises that were not kept. But now the hemorrhage of talent has struck the armed forces like a plague. The public is concerned. Noted conservative writers, who have been staunch supporters of the armed forces, such as William F. Buckley, are now writing articles expressing grave doubts about military pay and the loss of trained flying, maintenance, ordnance, and electronic personnel. Buckley asks why the reenlistment rate is declining to 36 percent and why enlisted personnel have to moonlight or go on food stamps to survive.[12]

pay parity for the armed forces

One other major reform, in addition to the adoption of a COLA adjustment, needs to be incorporated into any military compensation system. As Mr. Laird astutely argues, if NCOs and young officers are to be retained, then the 17 percent in real income that they have lost since 1972 must be restored.[13] Once more, there exists in the Postal Service pay schedule an apparatus by which this can be quickly accomplished. The average grade level for the majority of postal workers is Grade 5. All NCOs from E-5 to E-9 should have their base pay adjusted to reflect parity with Level 5 pay of postal clerks and carriers with the same number of years of service. A wide pay gap of many thousands of dollars now exists. For instance, a technical sergeant (E-6) with eight years' service now earns about $10,922.40 per annum base pay, whereas a letter carrier earns more than $20,000. While it is important that we have good mail service and that our postal employees be treated fairly in terms of national priorities, the retention of key enlisted and officer personnel who are responsible for millions of dollars in equipment every day is of far greater importance to the well-being of this nation.

Enlisted personnel in the grades of E-1 through E-4, most of whom are nonprior service personnel (NPS), should have their basic pay tied to a parity with entry level pay at Grade 3 in the Postal Service, which would bring them up to a $14,000 entry rate. For those who argue that we must show fiscal restraint by depriving NPS personnel of a living wage in double-digit inflation, the answer lies in the astronomical costs involved in military training each year. Latest studies show that the armed services are spending $8 billion per year, including $2.6 billion for specialized skill training, $1.3 billion for recruit training, and other costs associated with informal acquisition of skills on the job may add another $3 billion for enlisted specialized training alone.[14] A shift to a more career-intensive force would save over $1 billion per year. Present attrition and retention rates would bankrupt any private business. Added to this, we are talking about the future credibility of this nation and whether we can maintain our position of power as the bastion of the free world. If we can find the money for postal clerks, where there are fifty applicants, at least, for every opening and where every minute of work over 8 hours per day and 40 hours per week is paid for at the rate of time-and-one-half, then I think we have to find the dollars for the E-4 plane handler on the deck of the *Nimitz* who is putting in 16-hour days, handling F-14 aircraft costing $25 million per plane, and who has not seen his family in more than six months.

Whatever the reason may have been for choosing a military career in 1953, today 90 percent of our airmen and other enlisted personnel are most concerned with future financial security. Pay is the most important factor persuading a second- or third-term NCO to leave the service. Those Pentagon leaders who have been told to muffle their criticism

about pay, readiness, and the quality of the armed forces know that our national security and our position as a world power are at stake. Fiscal restraint at the cost of the welfare of our troops, while billions in increased costs are paid to contractors who intend to keep pace with inflation, is totally counterproductive. All the hardware and weapon systems in creation will not help America if we lose the experienced talent to operate and maintain them.

The postal clerk or carrier can be trained in six weeks or less. Any high school student of average physical and mental capability could come in tomorrow and be as productive as most postal employees in even less than six weeks, considering the quality of postal service during the last decade. On the other hand, second- and third-term NCOs with the technological skills and experience necessary to operate our sophisticated weapon systems, and who are eagerly recruited by defense contractors, are irreplaceable.

the future is now

The decade of the 1980s has been ushered in with a number of challenges to American power and credibility in the world. The test that took place in the bleak desert at Tabas, Iran, was only one of many tests that will follow in this decade. Unlike our Soviet rivals, our nation has done little to build in our citizenry an awareness of the vigilance and preparedness that will be necessary in the years ahead. From an early age, Russian youth are taught to pay tribute to the sacrifices made during wartime. In Soviet high schools, military training is carried out nationwide; there is a draft for all 18 year olds and compulsory reserve officer programs for those who attend the Soviet universities.[15] Soviet youth from the age of 14 are encouraged to join the Voluntary Committee for Assistance to the Armed Forces, where they receive military and technical training in a combination 4-H, Boy Scouts, American Legion, and National Guard program. Youngsters are taught to drive and maintain military vehicles, to make parachute jumps, to operate and maintain radio and electronics equipment, and to fire weapons. In addition, each summer high school boys are sent off to the equivalent of an American basic training camp. These activities are paid for not by the Ministry of Defense but by the Ministry of Education.[16] While our Congress takes months to debate draft registration legislation, the Soviets are maintaining their armed forces at 4.5 million men. Conscripts total 1.7 million youths per year, and only 10 percent are deferred for any reason.[17]

While most military writers agree that reinstitution of the draft would be of very little help in strengthening United States Armed Forces, since we need career-oriented and highly trained personnel, still it is significant to observe Soviet intentions through the way they deal with military training.[18]

THE MACHINERY to turn this desperate situation around exists in government at present. The cost of living adjustment as now applied to the Postal Service and pay parity with Postal Service personnel would arrest this dangerous hemorrhage of talent and restore dignity and self-esteem to our armed forces personnel. It is ironic that the boiler technicians who were missing from the crew of the oiler *Canisteo* and caused it to be stood down earned an average of $12,000 per annum in the Navy and $23,000 in civilian life. Justice and equity cry out for change. National survival and the retaining of our place as a world power call for the adoption of the military compensation and benefits package recommended here. Action is essential—now.

New York

Notes

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4. Laird, p. 61.

5. "Muffling the Drum," *Air Force Times*, March 24, 1980, p. 13; B. Callender, "Manning: Can Inflation Help?" *Air Force Times*, April 14, 1980, p. 4.

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fire counter fire

PROFESSIONALISM VERSUS MANAGERIALISM IN VIETNAM

MAJOR RICHARD A. GABRIEL, USAR

The following exchange is initiated by a writer already familiar to many as a coauthor of Crisis in Command. *In it, and in the following comments by three respondents, comparisons are drawn concerning unit cohesion with particular reference to the Army and Marine Corps combat experience in Southeast Asia. Though perhaps not directly applicable to the Air Force, such comparisons—and the arguments surrounding them—have considerable relevance to professional airmen. Do our units require the cement of hard-core, traditional discipline and leadership to achieve combat effectiveness? Or does the critical importance of advanced technology to air forces dictate a greater emphasis on managerial skills? Is there a uniquely Air Force solution to the allied problems of unit cohesion and combat effectiveness? Regardless, the issues are important ones that command our attention.*

J.F.G.

TWO years ago in a book called *Crisis in Command*, Paul Savage and I developed a schema of analysis that made it possible to examine the levels of battle cohesion demonstrated by U.S. Army units during the Vietnam War. In that analysis several indicators of unit disintegration were used. These included desertion rates, AWOL rates, rates of drug use, mutinies, and assassinations of leaders (fragging). These indicators were linked to several organizational practices that seemed to contribute strongly to their occurrence. Thus, it was argued, as a consequence of adopting and implementing certain managerial and entrepreneurial practices while dismantling the more traditional modes of leadership behavior, levels of unit cohesion fell while overt indicators of unit disintegration rose at alarming rates. The ultimate result of these low levels of unit cohesion, we felt, was the inability of many Army units to engage in effective combat against the enemy.[1] My purpose here is to undertake the same type of analysis with the limited data available and assess, briefly, the combat performance of U.S. Marine Corps

units during that same war. Comparisons are always suspect and such is the case here when comparing Marine Corps data, which are heavily "tooth" with Army data that includes much of the "tail" as well as the "tooth," there is rightfully some doubt. Regardless, I think the lesson is still valid.

A Comparison of Marine and Army Performance

A comparative analysis of Army and Marine Corps performance is possible now that some data on Marine performance are finally available. Moreover, the Marine effort in Vietnam differed significantly from that of the Army in a fundamental and important respect: The Marines consistently refused to change traditional leadership practices and imitate the modern managerialism of the Army. Accordingly, Marine performance presents an interesting case study of how American units fought when managerial practices were not allowed to alter traditional values and norms associated with small unit cohesion. I contend then that a comparison of Marine and Army battlefield performance highlights the effectiveness of such traditional military ways while casting substantial doubt on the effectiveness of managerial substitutes on the battlefield.

desertion

Examination of the basic indicators of unit disintegration—desertion, AWOL, drug use, fragging, and mutiny—suggests that Marine Corps units suffered problems equal to or even greater than those found in Army units. With regard to desertion, the rate at which this pathology was demonstrated by Marine units was certainly commensurate with comparable Army rates. Between 1964 and 1972, the average rate of desertion within all Army units was 36 per thousand. This figure compares closely with a rate of 37 per thousand for Marine units.[2] If the data are examined as a percentage of base increase over pre-Vietnam rates, both services reflected substantial rates of increase. The Marine rate increased by 205 percent while that of the Army increased by 277 percent over the same period. If desertion rates are examined on an annual basis, the Marine rate per thousand in the enlisted ranks exceeded that of the Army for every year except 1971.[3] On balance, the data support the conclusion that desertion rates for Marine units during the Vietnam conflict were roughly commensurate with those suffered by Army units during the same period. Certainly there is no evidence currently available that desertion rates were appreciably lower in Marine units.

AWOL

Much the same picture emerges when AWOL rates of Army and Marines units are examined. In this important indicator of unit cohesion, the Marines seem actually to have fared worse. From 1967 through 1972, the only period for which data are available, the Marine AWOL rate averaged 141 per thousand. By comparison the overall Army AWOL rate averaged 103 per thousand.[4] To the extent that AWOLs indicate a lower level of unit discipline than required for effective battlefield performance, it would appear on the surface that the Marines had a much more serious problem than the Army.

drug use

With regard to the question of drug use among the soldiery, hard data are difficult to obtain. Yet, if Marine disciplinary records are examined for 1969 through 1972 (again the only period for which data are available), the total number of Marines discharged for drug offenses was 5136. The number charged under the Uniform Code of Military Justice

(UCMJ) for drug offenses in that same period was 4210.[5] Taken together, this would comprise slightly more than 1 percent of total Marine troop strength involved in drug use. However, it is probable that such an indicator is inaccurate since it reflects only those users who were apprehended. A more reliable indicator of drug use among Marines emerges from the presentation given by Lieutenant General W. K. Jones, USMC (Ret), at the Manpower Seminar of the General Officers Symposium held in 1972. That report notes that 48 percent of Marine troops reported having used drugs "at some time or another" while 32 percent indicated that they "were present users." Fully 21 percent said that they had used drugs for the first time while in the Marines.[6] Extrapolating from the data, one can conclude that the level of drug use among Marine units during the Vietnam period was at least close to the 28 percent rate that was found to exist among all Army units during the same period.[7] Indeed, the data may be interpreted to suggest that Marine drug use may have been slightly higher.

While drug use, desertions, and AWOLs are all important indicators of cohesion and discipline, there is a sense in which they remain highly individual acts that may or may not affect the larger sense of *unit* cohesion. There are, however, two unambiguous indicators of unit cohesion and discipline, which need examination: Those are the rates at which unit leaders were "fragged" or assassinated and the rate of overt mutiny or combat refusals. In both instances the rates of occurrence were much lower across the board in Marine units than in Army units.

fragging

There is perhaps no more crucial indicator that a unit has lost its discipline and cohesion than when soldiers kill their leaders for whatever reason. Information provided by the Office of the Secretary of the Navy does suggest that the problem of assassination of leaders may have been less of a problem among Marine units than in Army units. Between 1964 and 1972, for example, the number of Marines charged with murder or attempted murder under the relevant articles of the UCMJ in all instances was only 121.[8] An examination of the battle journals kept by Marine units reveals that in the First Marine Division 47 incidents of fragging were reported.[9]

The limited data indicate then that the incidence of fragging in Marine units may have been considerably below that found in Army units, which reported a total of 1016 admitted fraggings during the entire Vietnam War.[10] The Marines may have done better in preventing the pathologies of individual soldiers within units from surfacing in the specific act of striking at unit cohesion by the assassination of unit leaders.

mutiny

Another area in which Marine units fared consistently better than Army units was in the rates of mutiny and combat refusals. If the numbers of Marines charged under Article 94 (mutiny) and Article 94/80 (attempted mutiny) are combined for the period 1964 through 1972, the total number of offenses amounts to only 26.[11] By comparison there were 245 cases of mutiny and attempted mutiny in a single division in the Army in 1970 alone.[12] The Marine combat refusal/mutiny rate then was considerably lower than that for the Army.

The lower rates of mutiny and of assassination of leaders in Marine units are very important data. They suggest that although desertion, AWOL, and drug use may have been in evidence at fairly high levels within Marine Corps units, these problems remained focused on individual soldiers and did not as a rule provoke a state-of-unit mutiny or even individual combat re-

fusal. Whatever provoked desertions, AWOLs, and drug use among Marines, it was seldom serious enough to provoke direct, "in combat" acts of overt disobedience or refusals to execute unit missions. Moreover, it was rarely serious enough to provoke what I feel is the ultimate act of unit discohesion, the assassination of leaders. Intriguingly, the low rates of mutiny and fragging in Marine units as compared to all Army units suggest that individual problems of drug use, desertion, and AWOL in Marine units remained focused on the individual soldier and never combined to impact upon the levels of combat performance as they did in Army units. While both Army and Marine units had relatively large numbers of soldiers who practiced behavior that was potentially devastating for unit cohesion, the Marines seem to have succeeded in controlling the problem and stopping it before it affected unit cohesion. It must be kept in mind, however, that some of the Army fraggings did occur in support areas and had no bearing on combat unit cohesion, but it is very hard to shread out these instances.

Combat Ability

The best indication of the ability of Marine units to contain the potentially disruptive effects of individual pathologies is to examine their performance under fire. If the data on combat performance are examined, it seems that Marine units fought courageously and well. Moreover, in fighting several large unit actions, Marines often fought an intensity of war greater than the relatively low intensity of combat experienced by many Army units.[13] This is not an endorsement or a virtuism of Marine tactics; the author is well aware that many, particularly in the Army, felt Marine tactics to be excessively direct and bloody, making too little use of supporting firepower. For the purpose of our discussion, however, this is irrelevant. The point is that Marine units, on the whole, came under greater combat pressure than did the Army units. Whatever else, casualty rates may prove or disprove, they are a good indicator of the intensity of combat.

The effectiveness of Marine units may also be demonstrated by the disproportionately high casualty rates absorbed by them. During the Vietnam War, Marine forces constituted 17 percent of total ground troop strength. However, they absorbed fully 28 percent of total forces killed in action. Thus, of the 45,915 Americans killed in action between 1964 and 1972, a total of 12,983 were Marines. In the same period they absorbed an amazing 33.5 percent of the total wounded in action (WIA), a rate of WIA almost exactly twice what statistically they may have been expected to absorb.[14] The data strongly suggest then that in terms of combat behavior, Marine units generally fought often and presumably well; Marines were wounded proportionately twice as frequently as members of Army units; and Marine units suffered a much greater burden of death relative to their size than did Army units. They demonstrated this fighting tenaciousness, if our assumptions are correct, under conditions of conflict more intense than those to which Army units were generally exposed.

The analysis resolves itself into the following question: If Marine units reflected nearly the same levels of desertion, AWOL, and drug use as Army units and if, despite this, Marine units continued to perform well in combat, how can this be explained? How was it possible for Marine units to prevent these pathologies from overwhelming the sense of unit purpose, unit mission, unit cohesion, and unit effectiveness so as to allow them to perform well under fire? The answer is to be found in an examination of those traditional practices of military order and discipline that the Marine Corps refused to abandon despite some pressures to move to more managerial

and "modern" ways of handling troops. Precisely because they were able to maintain the traditional mechanisms of discipline, leadership, and professionalism, largely through a superior NCO cadre, the Marines were able to mitigate if not negate altogether their problems of drug use, AWOL, and desertion and to hold their units together so that they could perform well on the battlefield.

One critical respect in which the Marine Corps differed from the Army during Vietnam was in the quality of its small unit officer leadership. It is difficult not to conclude that the Marines may have maintained relatively higher quality small unit officers throughout the entire conflict than did the Army. Historically, and to state fairly, the Marine Corps has been smaller than the Army and takes on more of the quality of a brotherhood than the bureaucratic associations that tend to develop in the large, complex bureaucratic structures characteristic of the Army. Moreover, many Marine officers were not career officers. Instead, I feel that they were for the most part highly motivated young men who joined the Marine Corps for one or two tours of duty and then left service. The result was that the Marine officers who commanded small combat units were often imbued with the notion that the Corps was something special; they were convinced of the value of Marine traditions and practice in leading their men into battle by superb NCO cadres. The dictum, popular in the early seventies, that one could *manage* men on the battlefield or that officers were merely *middle-tier managers* never took deep root in the Marine officer corps during Vietnam, and from all indications it still has not.

As a consequence the quality of Marine officers must have remained very high at the crucial point in the fighting structure, namely at the company and platoon level, precisely where most of the fighting was done. Further, the overall expansion of the Marine Corps to meet the requirements of the war was considerably less than the Army's. The pressure on the Marine officer corps for rotation through Vietnam was less. As a result, the Marine Corps seldom, if ever, found it necessary to lower quality standards for their officers in order to recruit ever growing numbers to meet manpower requirements. By contrast, in order to meet sometimes inflated strength levels, the Army found it necessary to continually reduce the qualifications allowable for officer positions. As the war dragged on, the Army witnessed what appeared to be a continual lowering of standards by necessity and a proliferation of officer candidate schools to the point that they produced a breed of officer whose quality was held by many to be considerably lower than in the early days of the war.[15] Thus, perhaps one of the crucial aspects of the ability of the Marines to maintain cohesive units in the face of individual tendencies toward disintegration was closely tied to the maintenance of a highly disciplined, strongly motivated officer corps of good quality.

officer strength levels

Another element closely related to the ability of Marine Corps units to remain cohesive was the small size of the officer corps itself. An examination of highly cohesive armies in history, and even today as the Israeli case exemplifies, reveals them to have officer corps whose strength was relatively low as a percentage of total strength.[16] For example, the Wehrmacht of World War II never exceeded 4 percent of total strength for its officers, the French during Indochina never exceeded 5 percent, and the Israeli Army today does not exceed 6 percent of total officer strength. All of these cohesive armies fought well and possibly did so at least to a large extent because their officer corps were small and apparently tightly disciplined. If Marine officer strength levels are examined in this

light, it is clear that Marine officer strengths were proportionately far lower than strength levels in the Army. Discounting the officers of the Marine air wing who did not see ground combat (our data similarly discount Army warrant officers, most of whom were helicopter pilots, for the same reason), Marine officer strength during Vietnam accounted for about 6.4 percent of total corps strength.[17] The ratio of officers to enlisted men was one officer per 14.1 soldiers or a rate that compares very favorably with the German Army in World War II, the French Army in Indochina, and the Israeli Army today. By comparison, Army officer strength in 1968 was one officer for every eight soldiers or almost double the proportional strength of the Marines. By 1972 Army officer strength had risen to one officer to 5.7 enlisted men or to almost 15 percent of total troop strength.[18] In contrast with the Army, the Marines tended to maintain lower officer strength, a condition usually historically associated with highly effective and cohesive battle units. The Marines perceived that a small officer corps was effective in leading combat units and persisted in this policy throughout the entire Vietnam War while the Army, slowly becoming more managerially oriented, expanded its officer corps considerably and at a high rate.

stability of leadership

One of the more obvious elements associated with effective combat units throughout history is the degree of stability of unit leaders. Highly cohesive armies tend to consist of units that trained together, deployed as units, and remained together for long periods of time. The same is true of the leadership elements attendant to these units. Cohesive units tend to have officers and noncommissioned officers who have been stabilized in their positions for long periods of time. In the early days of the Vietnam War, Marine units followed their historical practice, deploying and replacing whole units and sending the officers who had trained the men into combat with them.

During Vietnam, U.S. military units, especially Army units, were subjected to an exceedingly high rate of personnel turnover so that the bonds of cohesion among members of a unit were often seriously weakened. Because each soldier had a different time at which his tour of service would end, constant in-and-out rotation was the rule. As a consequence, no one was ever in place long enough to establish strong bonds with his fellow soldiers. Cohesive units were quickly replaced by associations of strangers. With regard to Marine units, the Corps abandoned its traditional policy of unit rotation (transplacement) in 1965 and adopted the individual rotation system of the Army.[19] Consequently, personnel turbulence within Marine units was almost as high as in Army units. During the peak year of Marine in-country strength, this turbulence fluctuated between 85,000 and 120,000 soldiers—a year of a total strength level of 317,000.[20]

Despite high levels of personnel turbulence, the ability of Marine units to fight effectively seemed basically unaffected. The reason seems simple. Unlike Army policy, which was to rotate officers into command positions for only six months and then redeploy them to staff positions, the Marines required officers to spend their full tour of duty with their troops.* Except for battle death, wounds, or special circumstances, Marine officers spent their entire time in-country with their troops. Army combat officers spent only six months in combat while their troops spent a full twelve. While Army officers apparently rotated rapidly through a series of assignments, Marine officers remained in place in support of the

*Army practice was to rotate at the company level and above at the six-month point primarily to expand wartime experience

traditional practice of officer stability.

With Army officers assigned to combat positions for only six months at a time while their troops remained exposed for the full tour of duty, the troops came to perceive that their leaders were not bearing their fair share of the risk. The fact that many Army officers served multiple tours and were highly experienced and competent did not change this. It was the perception that counted.

In Marine units exactly the opposite was true. The only way an officer could leave a unit ahead of his men was by being killed or wounded. There is perhaps no element of leadership that cements men together more than the perception that their officers are bearing their fair share of risk and death. In Army units the troops quickly discerned that with their officers having to serve only half as long as they did under the enemy's guns the officers were not bearing their share of the burden. In Marine units the opposite perception was obtained as Marine policy stabilized leadership elements with their troops for the entire period of in-country service.

the burden of death

Because Marine officers stayed with their troops longer, their presence in turn was more visible on the battlefield. Probably as a consequence, they received more battle wounds proportionately than did Army officers and, more important, suffered a far greater burden of death than did Army officers. Although Army officer strength during Vietnam constituted some 15 percent of the total force, Army officers absorbed only 7 percent of the battle deaths. By contrast, Marine officers constituted only 6.4 percent of total strength and suffered 6.1 percent of battle deaths.[21] It was quite clear to Marines that their officers not only shared the hardships and risks of a full thirteen-month tour but that their officers actually accepted an equal risk of death.

When Marine performance in Vietnam is examined from the perspective of unit cohesion, it appears that the Marines were able to maintain higher levels of cohesion by applying basic lessons learned from their own history. They correctly linked unit cohesion to a corps of highly motivated, good quality officers, who constituted a small percentage of total strength, stabilized their positions for at least as long as their troops were in-country, and set an example of courageous leadership by suffering their share of wounded and dead. All four of these conditions have historically been associated with highly cohesive military forces.

Moreover, Marine units appeared able to overcome many of the pathologies affecting individual soldiers precisely because of the quality of officer leadership. The Marine officer stood as a bulwark by his own example, by risk of his own life, by his own motivation, and thus keeping the forces of individual disintegration from overwhelming unit cohesion. The unwillingness of the Corps to abandon such traditional gladiatorial practices in the face of creeping managerialism must be counted as one of the greater successes of the Marine Corps in Vietnam.

effective disciplinary system

The excellence of Marine officer leadership has been characterized by yet another traditional practice of the Corps, the maintenance of good order and discipline and their rigid enforcement by every legal means available. When disciplinary rates for Marine and Army units are compared, they clearly show that the Marines maintained a more rapid and efficient disciplinary system for containing and dealing with disciplinary problems. Between 1965 and 1972, only half of the Army deserters were returned to military control. By contrast the Marine disciplinary system returned

more than three-fourths of deserters to its control. In cases that were tried for desertion by courts-martial, the Army conviction rate was only 63 percent whereas for the Marines it was 80 percent.[22] Perhaps most telling of all is the fact that during the Vietnam War the Army actually decreased the number of prosecutors available to deal with offenses against good order and discipline.[23] The Marines on the other hand increased the number of legal officers dealing with disciplinary problems which may have been relevant to Marine success. It was common knowledge among the troops that punishment in the Corps would be swift and sure. The Marines seem to have maintained yet another institutional support for unit cohesion by linking good officer leadership to a rapid and efficient prosecutorial system for containing and dealing with disciplinary problems. I find that significant in comparing leadership and entrepreneurial modes of operation.

MARINE units during the Vietnam War suffered from problems of desertion, AWOL, and drug use at rates commensurate with Army units. However, the performance of these units as *units* makes it clear that the Marines were able to prevent individual pathologies from coming together in such strength as to affect unit cohesion or performance. How they did this, I think, is a credit to professionalism and traditional modes of leadership. The Marines were able to deal effectively with their disciplinary problems, by having small numbers of highly visible officers, by ensuring that they remained with their troops for a full tour of duty, and by allowing Marine officers to assume their full share of the burden of death. All these are traditional mechanisms of military leadership, and they were evident among Marine units in Vietnam.

None of this is to suggest that the Marines did not have their difficulties during that war, nor is it fair to imply any lack of dedication or competence among Army officers. It is only to suggest that although Marine units were pulled by forces toward disintegration—as all armies have been from time immemorial—the Marines, unlike the Army, were able to prevent these forces from damaging unit cohesion and discipline. More important, they were able to accomplish this, I believe, through the judicious application of traditional leadership methods. By contrast, the Army had gradually abandoned many of its traditional leadership modes and disciplinary habits in conformity with the new bureaucratic order, which placed premiums on the ability to handle managerial skills. When that happened, the effectiveness of Army units dropped considerably while indicators of unit disintegration rose alarmingly.

In the end, the traditional formulas of military leadership and discipline worked well for the Marines, and they were able to maintain effective units in the face of potentially debilitating problems. The Army, on the other hand, tried to implement a modern formula of managerialism and managerial technique, tried to "manage the conflict," manage their resources, and finally tried to turn its officers into "middle-tier managers." To this analyst, the lesson is clear: The traditional formula worked; the modern one failed. In this sense those who would introduce managerial techniques into the military ought to be aware of the effect that such techniques may have on the quality of combat leadership and unit discipline. Only when it has been determined that leadership and unit cohesion will not be adversely affected by managerial reforms should we feel safe to adopt them in a combat army. That would appear to be the

basic lesson of a comparison of Army and Marine Corps units in Vietnam.

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Notes

1. This is the major thesis of Richard A. Gabriel and Paul L. Savage's *Crisis in Command: Mismanagement in the Army* (New York: Hill & Wang, 1978).
2. *America's Volunteers: A Report on the All-Volunteer Armed Forces*, Office of the Secretary of Defense for Manpower, Reserve Affairs, and Logistics, December 31, 1978, p. 206.
3. Ibid.
4. Section on *Military Absentees*, Office of the Assistant Secretary of Defense (M&RA) MPP, April 18, 1972.
5. Letter to Congressman Robin Beard, originally responding to this author's request for information through that office. The letter is dated 31 August 1979 and signed by Edward Hidalgo, Assistant Secretary of the Navy, Manpower, Reserve Affairs, and Logistics, p. 5.
6. Presentation by Lt. Gen. W. K. Jones, USMC (Ret.), Commanding General, FMFPAC, at the General Officers Symposium in 1972, pp. 23-25.
7. Gabriel and Savage, p. 49.
8. Letter to Beard, p. 4.
9. See *Division Command Information Report* of April 10, 1971, of the First Marine Division.
10. Gabriel and Savage, Table 2.
11. Letter to Beard, p. 2.
12. Gabriel and Savage, p. 45.
13. One of the major arguments in *Crisis in Command* is that the number of Army casualties taken over a ten-year period compared to similar types of warfare in recent history marks the Vietnam War as a low-intensity conflict in which battle stress, as traditionally witnessed in the West, was relatively low and of short duration.
14. Letter to Beard, p. 6.
15. Interestingly, the perceived decline of officer standards was used as a defense by lawyers representing Lieutenant William L. Calley, Jr., during his court-martial for the so-called My Lai massacre. They argued that Calley would never have been allowed to become an officer by postwar standards.
16. For this argument presented more completely in the historical context, see *Crisis in Command*, pp. 69-70.
17. Letter to Beard, p. 10.
18. Gabriel and Savage, p. 62.
19. *The Marines in Vietnam: 1954-1973* (Washington: History and Museums Division, U.S. Marine Corps, 1974), p. 41.
20. Letter to Beard, p. 9.
21. Ibid., p. 8.
22. Ibid.
23. Ibid.

A Response

MAJOR PRICE T. BINGHAM

MAJOR Richard A. Gabriel's "Professionalism versus Managerialism" is a valuable addition to the professional military reading list. An initial reaction may be that it involves ground units and can contribute little to an Air Force officer's education. However, on reflection, one soon realizes that a study that provides enlightenment on improving the effectiveness of men in combat is of value to any military professional, whether soldier, sailor, or airman.

Gabriel's examination of Army and Marine performance in Vietnam demonstrates sharp contrasts between the two services when indicators of unit divisiveness such as fragging and mutiny are compared. Of particular interest was the fact that both services reflected similar rates of drug use, desertion, and absence without official leave (AWOL), which, although definitely harmful to a unit's effectiveness, are more an individual than a group act.

According to Gabriel, the reason for the higher level of unit cohesiveness in the Marine Corps was the different approach each service took to leadership: The Army had moved toward more "modern" methods of management, while the Marines relied on the "old-fashioned," traditional mechanisms of discipline, leadership, and professionalism. The first area where differences were obvious was in small unit officer leadership. The high standards of marine junior officer leadership proved to have a significant impact on unit effectiveness.

The Gabriel study provides much food for thought for Air Force officers. As a newer military branch, different in many respects from the older services, the Air Force may have tended to neglect the study of men in combat. Gabriel's article should stimulate the

Air Force to ponder the effect of putting senior but inexperienced pilots into positions of leadership in tactical fighter squadrons as flight commanders and flight leaders.[1] When a unit's leadership is somewhat unfamiliar with a unit's mission and type of aircraft, the logical result could be loss of credibility and less effective leadership. This could result in increased accident rates in peacetime and avoidable losses in combat. Studies of World War II combat have proved the value of credibility for small unit leaders.[2]

It is also important to note with a better understanding of the importance of stable leadership, perhaps we could minimize the turmoil caused by the present assignment process. The growing shortage of experienced pilots in the Air Force leaves fewer pilots to serve in various staff functions. A virtue of this staff drawdown may be in the realization that many staff functions do not require rated officers but were so staffed only because the Air Force had an excess of experienced pilots.

With fewer duties requiring rated officers, perhaps assignments could be stabilized to the point where the average pilot might expect to remain in a particular unit for extensive periods of time, say for ten years or even longer. In order to man overseas responsibilities, units based in the continental United States (CONUS) might rotate periodically to overseas locations. Such home basing would provide several major advantages in addition to unit stability. By deploying as a unit, every wing should be able to exercise fully its mobility capabilities; and individuals in each wing should in turn become more familiar with their overseas responsibilities. Leaving dependents at the CONUS base eliminates the concern members experience when they feel their families are vulnerable to enemy action. Recent studies also indicate that frequent moves and the resulting dislocative effect on a civilian working spouse are becoming major reasons why members leave the service.[3] Also, by remaining in one location longer, couples who are both members of the military would experience less of the upheaval of reassignment and separation. In addition, with less frequent individual moves, the saving in moving expenses would be a major benefit for both the Air Force and the individual.

Reflection on the performance of men in combat brings to mind exercise Red Flag. The Air Force established Red Flag exercises based on the perception that a pilot who survives the first ten combat missions experiences a significant enhancement in the probability of his surviving subsequent missions.[4] Yet this finding raises the question of why these early combat missions are so dangerous.

If the reason is lack of adequate training, Red Flag will be particularly valuable. However, if part of the reason is something else, then further action is warranted. Studies by experts, such as F. M. Richardson, place high emphasis on comradeship in a combat organization.[5] The United States military in World War II, Korea, and Southeast Asia, in line with this emphasis, developed a rotation policy for individuals rather than units. In itself this policy was not wrong. However, when a replacement arrived in the midst of intense combat, problems developed. Without the opportunity to establish personal bonds of comradeship with experienced members of the unit, the "new guy" often remained a relative stranger for critical days. With no one to show him the ropes or look out for him to the degree they would for an established comrade, the new guy often made elementary mistakes and was subsequently lost.[6] If comradeship played a role in the dangers of the first ten missions, reconsideration of the mechanics of replacements in combat is warranted.

Although Gabriel's survey did not address it, other studies of men in combat have demonstrated two interrelated areas with

which all Air Force commanders should be intimately familiar. These areas are the relationship of fatigue and fear and the ability of man to renew himself rapidly when given adequate rest. General S. L. A. Marshall noted that " . . . fear and fatigue impacted on the body in the same way, draining it of energy." He also noted that " . . . just a little rest will work a miracle of recovery."[7]

Reading the memoirs of pilots who flew intensively for long periods during the Battle of Britain or with the Luftwaffe over Germany in 1944 and 1945, one is struck by the frequency with which exhaustion is mentioned. One cannot help wondering whether many highly talented pilots might have survived and continued to be effective if they had been given adequate rest at appropriate times. The failure to comprehend and compensate for the debilitating effects of fear and fatigue could result in penny-wise, pound-foolish leadership, resulting in more but less effective sorties in the short term and the avoidable loss of highly experienced pilots. As General Marshall noted, peacetime exercises, by ignoring the effects of fire (fear) on fatigue, often set goals that would be impossible to attain or maintain in combat.[8] This fact is particularly significant when crew ratios and turnaround capabilities are determined for tactical aircraft.

With these factors in mind, the Air Force officer should realize that the study of men in combat is perhaps the most important area of professional military study. Learning the appropriate lessons from historical experience could prevent a combat leader from painfully reinventing the wheel.

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Notes

1. This issue was addressed in Captain John T. Barry's article "The Credibility of Fighter Squadron Supervisors," *Air University Review*, September-October 1980, pp. 35-44.
2. Robert K. Merton, editor, *The American Soldier: Combat and Its Aftermath* (Princeton, New Jersey: Princeton University Press, 1949), p. 247.
3. Melvin R. Laird, "People, Not Hardware the Highest Defense Budget Priority," *Armed Forces Journal*, March 1980, p. 65.
4. Major Arnold Terry, "Red Flag: TAC's Realistic Approach to Readiness," *Air Force*, January 1977, p. 41.
5. F. M. Richardson, *Fighting Spirit: Psychological Factors in War* (New York: Crane, Russak and Co., 1979), pp. 6-13.
6. Merton, p. 277.
7. S. L. A. Marshall, *Bringing up the Rear: A Memoir*, edited by Cate Marshall (San Rafael, California: Presidio Press, 1979), pp. 204, 206.
8. Marshall, p. 207.

A Response

MAJOR JOHN T. HART, USMC

IN COMPARING U.S. Marine Corps and Army performance in Vietnam, Major Richard G. Gabriel adopted an unusual and interesting approach to describe the value of traditional leadership in combat. As a Marine, I take pride in the fact that the Corps has not allowed its leaders to assume a managerial role. It has adhered to its concepts of professionalism, discipline, and esprit de corps. I concur with his thesis that, throughout the history of the Marine Corps, this philosophy has led to a high degree of unit cohesion, combat effectiveness, and superior battlefield performance. Assuming that Major Gabriel's statistics are correct, I believe he has favorably reflected the value of this leadership philosophy in his analysis of

Marine combat performance in the Vietnam conflict. However, in discussing reasons for this performance, he posed several incomplete arguments.

Although I concur that our officer leadership was indeed highly effective, especially at the company level, equally important was the leadership provided by staff noncommissioned officers (NCOs) and others. NCOs have long been considered the backbone of the Marine Corps, and they have traditionally been rewarded with greater responsibility than NCOs of the other services. These experienced combat veterans provided valuable assistance to new commanders in leading, training, and caring for their people. Indeed it is difficult to imagine a new, inexperienced lieutenant assuming command of a platoon in Vietnam without the assistance and advice of a dedicated NCO in a wide variety of military and combat areas. These NCOs provided the link between new commanders and their troops. Because of their effectiveness, the Marine Corps was able to maintain the low ratio of commissioned officers to enlisted strength, a factor that Major Gabriel associates with cohesive battle units. For the same reasons he applies to the quality of the officer corps, the superior leadership provided by these NCOs in Vietnam was a key element in maintaining unit cohesion.

Equally important in the development of unit cohesiveness was the quality of training received by each Marine prior to his entering combat in Vietnam. Marine Corps training has traditionally centered around the development of the small unit concept. In addition to receiving individual training in basic combat skills, endurance, and discipline, each recruit undergoes an intensive period of combat training with heavy emphasis on combat teamwork. This teamwork is built around the fire team, a concept unique to the Marine Corps in application, which is the basic unit of the rifle platoon. Within this unit each Marine learns his specific function and realizes that the performance and survival of the unit depends on the actions of each individual. He develops a sense of loyalty toward his fellow Marines and cannot envision forsaking his buddies in combat. Counterinsurgency operations conducted in Vietnam depended for their success on the performance of just such a small unit trained to react instantly and individually. Prior to combat, Marines were given an opportunity to perfect unit skills through extensive training exercises conducted in a simulated environment. Heavy emphasis was placed on physical and mental conditioning in a climate and surroundings similar to the environment in Vietnam. This training applied to both officer and enlisted personnel and produced combat-ready Marines who quickly adapted to the combat environment of Vietnam and who fully understood the value of unit cohesiveness. It was this training that drove our performance.

Another area requiring clarification is Major Gabriel's statement: "The effectiveness of Marine units may also be demonstrated by the disproportionately high casualty rates absorbed by them." (p. 80) Any student of military science would be quick to note that a high casualty rate is normally an indicator of poor combat effectiveness. History reports numerous battles in which heavy combat losses were associated with inept leadership, improper employment of forces, or engagement with an overwhelmingly superior force. I am certain that Major Gabriel did not intend to portray the effectiveness of Marine combat units in this light but was attempting to highlight the intensity of fighting engaged in by these units. He alludes to this fact in the closing sentence of the same paragraph: "They demonstrated this fighting tenaciousness, if our assumptions are correct, under conditions of conflict more intense than those to which Army units were generally exposed." (p. 80) Marine units did indeed fight

well, and they fought in the Northern I Corps area where they faced fresh North Vietnamese regulars, well armed, well supplied, and, in many cases, supported by artillery. The type of enemy and the intensity and frequency of the conflicts involving Marine units, in many cases, dictated the rate of casualties.

On the whole, Major Gabriel's analysis of combat performance leans very favorably toward the practice of traditional leadership in the Marine Corps. With the exceptions noted, he has accurately reflected the value of this leadership in maintaining unit cohesion and ensuring the success of Marine units in combat. Marine Corps adherence to the basic principles of training and discipline, combined with the quality of officer and NCO leadership, resulted in effective combat performance.

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A Response

LIEUTENANT COLONEL STEVEN W. WOLFGRAM, USA

MAJOR Richard Gabriel presents some interesting observations in his article, "Professionalism Versus Managerialism in Vietnam," but I find it difficult to accept his conclusion that the Marine Corps was more effective than the Army in Vietnam. His conclusion was neither supported by, nor logically based on, the information he provided.

The author would have the reader believe that the basic difference between the two services was Marine professionalism versus Army managerialism. His choice of words is unfortunate because the terms cannot be equated. Professionalism is the character of an organization, whether the organization includes Marines, lawyers, doctors, or even Army personnel. Managerialism refers to a skill or technique applied by a manager to remove the risk of decision-making in the day-to-day routine. It helps achieve maximum use of resources and reduce the probability of errors. Apparently, Major Gabriel was really discussing leadership in the sense that leaders motivate people to accomplish a mission. He attempted to compare the traditional, discipline-oriented leadership style of the Marine Corps with a more permissive style that he perceived in the Army during the Vietnam era.

Major Gabriel begins by comparing instances of absence without official leave (AWOL), desertion, drug use, fragging, and mutiny in the Army and the Marine Corps. He posits that the only two instances worthy of consideration are fraggings and mutinies because they are overt acts against authority. The former three actions he dismisses as individual acts. This, I believe, is incorrect because those actions are also indicators of a unit's health rather than mere individual acts. Unit consciousness developed through peer pressure can just as easily prevent a fragging as it can prevent a soldier from using drugs or going AWOL. The use of drugs and AWOL is not, as Major Gabriel suggests, simple individual acts. These acts represent a breakdown in a unit's command structure, though hardly to the degree of outright violence. The leaders of a unit must bear part of the responsibility for such a breakdown because they create—or tolerate—the environment for such acts.

One of Gabriel's more serious errors was

his measure of unit effectiveness on the basis of high Marine casualty rates. This is a naïve view of the world. High casualties may indicate a number of things, but none of them connote effectiveness. High casualties can lead to conclusions concerning the intensity of the battle, the quality of leadership, or the wisdom of battlefield tactics. Effectiveness means mission accomplishment; casualties are by-products of the mission and do not necessarily equate to getting the job done. According to Major Gabriel's definition, General Custer and his unit could have been considered effective. General Patton reportedly said that the important thing in war is not for you to die for your country, but to make the other poor . . . die for his country. And this does not mean that body count is the measure of effectiveness either. It does dramatize the fact that one aspect of accomplishing the mission is destruction of the enemy and his equipment at minimum expense to friendly units.

Major Gabriel's article focuses on leadership at the platoon and company level. He indicates that, at that level, the Army managed the conflict in Vietnam. The Army may have managed a great deal, but not at the small unit level. One had to lead platoons and companies to ensure success and survival. At these levels, there was a direct leadership relation between followers and leaders. It was not a management relationship. The assets were provided, and the company commander and platoon leader were doers who executed the mission rather than managed it.

His points concerning the relative quality of the officer corps may be correct, but size was not the driving force. The size of the Marine officer corps was proportionately smaller than the size of the Army officer corps for a simple reason. The Marines did not have the same overhead as the Army. Most of their planning and support came from headquarters populated by Navy officers. Their inclusion in Major Gabriel's equation would change the ratio of officers to enlisted men.

The author does offer some excellent insights into the root of many Army problems, and the root can be identified in one word, *personnel.* Rapid expansion of the Army diluted the trained cadre of officers and NCOs by spreading them among newly formed units. It further resulted in quick promotions that did not allow full development of commissioned and noncommissioned officers. Lowered entrance standards for draftees to help meet the need for additional soldiers also had a negative impact on the quality of soldiers. These soldiers brought the problems of the sixties into the Army with them. I believe the Marines experienced these problems to a far less degree because they were a volunteer force, and their soldiers were thus better motivated and ready to accept Marine Corps standards. Marine officers' emphasis on discipline and the stability of officers in command positions also contributed significantly to unit cohesiveness in the Marines.

The strength of Major Gabriel's article does not stem from his attempt to compare leadership styles and then assess unit effectiveness in terms of these styles. However, he does provide some sound observations concerning the impact of personnel actions on units. His conclusions appear every bit as true today as then, especially as they affect the development of leaders who require the training and experience to do their jobs. He never satisfactorily proved his thesis that the Marine Corps was more effective than the Army in Vietnam.

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Commentary

To encourage reflection and debate on articles appearing in the *Review*, the Editor welcomes replies offering timely, cogent comment to be presented in this department from time to time. Although content will tend to affect length and format of responses, they should be kept as brief as possible, ideally within a maximum 500 words. The *Review* reserves the prerogative to edit or reject all submissions and to extend to the author the opportunity to respond.

"PRINCIPLES OF DETERRENCE" RECONSIDERED

JOHN M. COLLINS

CHAIN reactions of creative thought are essential to sound strategies. The Fire Counter Fire and Commentary sections of *Air University Review* are well suited to assist that process, which comprises three phases: thesis, counter thesis, and synthesis.

My essay "Principles of Deterrence," which was published in the November-December 1979 issue of this journal, was a thesis of sorts. Comments regarding my essay in the July-August 1980 issue by three United States Air Force officers who are also Rand Research Fellows constituted counter theses or critiques. The synthesis phase awaits further rebuttals because I am not convinced that my basic premise requires modification.

The three reviewers read some things I never wrote into my treatise and sometimes misinterpreted my meanings. Therefore, I would like to offer a few clarifications.

Responses to Lieutenant Colonel Michael Seaton's critique

The separation of interests and objectives (page 77, paragraph 1) is of more than semantic significance. Security interests are simply general concepts of a nation's wants and needs. Objectives must be established to ensure their satisfaction. Preserving "our way of life," which falls into the first category, thus is not the "dominant national security objective of the United States," as noted by Colonel Seaton. Deterring strategic nuclear strikes on this country deserves that distinction, as confirmed by every President and Secretary of Defense since Harry Truman's time. Failure to fulfill that aim would uncover every U.S. interest.

"Avoidance" and "deterrence" (Ibid.) are not synonymous. The former connotes steps to slip aside or shun. The latter dissuades opponents by psychological pressure of some sort. Consequently, strategic surrender could not accomplish deterrent tasks or cover critical U.S. interests, although Seaton indicates otherwise.

I deliberately deleted "objective" from my original list of deterrent principles (p. 77, paragraph 2) because deterrence in that case is the only germane goal.

Nothing in my discourse denies Clausewitz's conclusion that no body of particular principles universally dictates strategic behavior (p. 78, paragraph 1). It specifically states the opposite.

Nuclear proliferation *might* make conflict "less likely out of fear of the consequences." (p. 78,

paragraph 3) It *surely would* increase the likelihood of miscalculations, accidents, and irresponsible/irrational acts. I personally prefer a world with the fewest possible fingers on nuclear triggers.

Reward not only can be but frequently has been "a viable persuasive element in situations of calculated aggression," (p. 78, paragraph 5) despite Seaton's doubts. President Magsaysay did not defeat the Huks with nuclear weapons or napalm. He undercut their power base in the populace with political, economic, and social reforms, to cite a single example.

Seaton calls for a range of military capabilities that should be "employable throughout the conflict spectrum." (p. 78, paragraph 6) Nothing in my list of deterrent properties indicates otherwise.

Intentions "not only to fight but to *win*" are tricky. (p. 79, paragraph 2) Tactical victories can lead to strategic defeat (as they did in Vietnam). Determination to win, however you choose to define that term, may strengthen deterrence in many cases, but not as a matter of principle.

Responses to Lieutenant Richard E. Porter's critique

Many U.S. defense decision-makers, military as well as civilian, ignore Principles of War. (p. 80, paragraphs 3-4) Others never heard of them. That does not neutralize the potential usefulness of principles during the preparation of concepts and plans for defense or offensive combat. Principles of War and Principles of Deterrence, properly employed, should *help formulate* sound intellectual frameworks, rather than *follow* them.

Finesse is more likely to deter than is force in some instances, but I never implied that political or economic sanctions would cause the Soviets to pull out of Afghanistan. My discussion of deterrent properties suggests the opposite. (pp. 80-81) I am equally convinced that announced intentions to employ U.S. "recognized superiority" in strategic nuclear weapons would also fail to accomplish that purpose because the threat would lack credibility. The impoverished state of our tactical/mobility forces reduces the range of practical deterrent options even further.

Principles of War and Principles of Deterrence *can* be used as checklists to assist in assessing concepts, plans, policies, and operations. (p. 81, paragraph 4) The Principle of Publicity, for example, indicates that technological advances have no deterrent value whatever, if they remain under wraps. Seen in that context, key questions connected with Stealth aircraft are not *whether* data should be disclosed but *at what stage* of development and *to what extent*.

Responses to Lieutenant Colonel Phillip D. Gardner's critique

The Japanese attack on Pearl Harbor is a poor example of irrational behavior or national insanity, Ambassador Grew's statement notwithstanding. (p. 82, paragraph 3) It was a high-risk operation that fits better within the British Special Air Service's (SAS) motto, "Who Dares Wins." It almost put us out of business in the Pacific. Successful steps to occupy Hawaii would have made U.S. resurgence most difficult.

"Strategy vanishes just at the moment when guidance is most needed" (p. 83, paragraph 2) only if the sole option is to execute some superspecialized plan, such as U.S. assured destruction concepts for general nuclear war. Defensive strategies traditionally supplant deterrence as soon as conflict (not necessarily armed combat) starts. That trend is traceable to the Stone Age.

I concur completely that Principles of Deterrence should not replace thought, (p. 84, paragraph 2) but they could remind strategists to consider specific subjects.

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COMPUTERS AND PICKUPS

MAJOR HUGH M. LOCHRANE, JR.

IN THE May-June 1980 issue of *Air University Review*, Major Frank J. Derfler's article, "When Is a Computer Like a Pickup Truck?" addresses some of the reasons behind the proliferation of microcomputers in the office environment and some conclusions about the management of these "humble and sturdy" devices.

If we are going to continue the pickup truck analogy to analyze microcomputers, we need to go a little deeper. There are varying sizes of pickup trucks, and we should determine what size is needed by analyzing the task to be performed. We don't send a quarter-ton pickup to handle a two-ton load. Pickup trucks are cheaper than dump trucks or semis, but that doesn't mean we should buy a dozen pickups to do the job of one dump truck. Finally, pickups come with a variety of options (hydraulic lifts, winches, four-wheel drive, etc.), but we don't buy pickups with all options included just to cover all eventual uses; nor do we get them completely stripped down so they are incapable of doing most of the work. Instead, we have to match requirements with capabilities and make economic comparisons to ensure that we pay for something that is going to provide real rather than perceived benefits. This principle holds whether we are buying pickup trucks, airplanes, large computers, or micros.

Major Derfler's principal question is: Should the acquisition and use of micros be regulated? If the answer is yes, then how should it be done, and who should do it? I disagree with Derfler's response to these questions and challenge some of his answers.

micro software—quick and easy

Micro software is the major factor (80 percent) in the cost of automated systems. Since the micros are just beginning to proliferate into the office environment, good figures on micro software versus large-scale software are unavailable; software costs for micros may go beyond 80 percent. Because we have amateurs doing the programming and working in an uncontrolled environment, I would predict an increase.

I disagree with the idea that the increased proportional cost of software is due to the decreasing proportional cost of hardware. Granted, hardware costs relative to actual performance capability have declined, and that has influenced the equation. Yet, practical experience indicates that software costs have increased because we are developing larger, more complex systems. Additionally, we are applying better management controls to software development to ensure that it meets functional user requirements and works right the first time, thus significantly decreasing the follow-on "maintenance" cost.

It is also worth noting that we do not pay additional attention to the software aspect of automated systems just because of the higher cost but because we recognize software as the most critical aspect in making the system work properly.

micro software complexity

According to Derfler "The small systems are so unfettered by complicated program interrelationships that program maintenance (updates) can be done by almost any experienced user." Sure, micro software systems usually do simple, uncomplicated tasks, but how long will it take before users of these micros take on bigger and more complex projects? Efforts are being made to provide high order languages like COBOL and FORTRAN and Data Base Management System capabilities for the micro. When these capabilities become a reality, micro users will feel obligated to take advantage of the new power and try to automate everything in sight, resulting in very complex and interrelated micro systems.

Micro users will tend to look only at the initial cost of software development and not consider the long-term cost of program maintenance. If they write their software quick and dirty, they are bound to have much follow-on maintenance. Also functional users change their minds frequently, and the more frequently they change their minds, the more reprogramming is involved.

I disagree with Derfler's conclusion to let the dust settle and then consider the development of standard programs, which would cause a long, hard struggle to regain control. The better approach is to get control of micro software development now.

micro maintenance

If we have to retain a manual mode of operation, as Derfler suggests, because we don't trust the micro's reliability, we are going to double the amount of effort doing our jobs. And if we have to keep both manual data files and magnetic media data files, we're not only duplicating work, we're creating a situation wherein the two files may get out of sync. The result is more work to do the same job and the risk of having inaccurate information.

One answer may be to develop an internal maintenance function. Since the micros are designed around chips and plug-in boards, we may want to build an inventory of spare parts, do our own troubleshooting, and replace the defective components. The bad parts could be shipped to the factory for repair.

Micro maintenance is not as simple as writing a purchase order. Service may not be available in many areas, and when it is, the cost may be high. We should also be prepared to accept some maintenance delays because support service seems to lag behind sales.

micro applications

Is there really a place for micros in our complex environment? They are great for doing simple things, but are we doing anything simple? I do not like Derfler's idea of purchasing these devices in response to a "perceived need that can be met expeditiously and at a low cost."

The fundamental problem is one of perceived need versus actual need. We should not buy $1000 "toys" because of perceived needs. No doubt, there are some real requirements that can be effectively and efficiently satisfied with micros, and we have to weed out the real requirements from perceived ones. Although $1000 may not sound like much, remember that is only hardware cost. I have not seen any good estimates of software costs, but if we use the 80 percent estimate, we can expect to invest $4000 in software for every $1000 invested in hardware.

Requirements for micros will be determined by functional users on a case-by-case basis. Senior managers must make the final decisions about buying a "toy" or buying something that will contribute to productivity. In short, senior management needs to get involved.

micro regulation, yes or no

Should the acquisition and use of micros be regulated? Derfler proposes ". . . that the Air Force [issue] one simple directive: Any computer devices, aside from weapon systems and other than test equipment, that can talk to other computer devices must have one common Air Force-wide standard for transmission."

That sounds like a good idea, but that is standardization and not management. It is limited to the technical aspects and does not address the need to manage the acquisition and use of micros. Additionally, it does not address micros that "stand alone" (those that communicate with other computers).

I think the Air Force has generally succeeded in managing micros. We recognize that they are computers and the dangers associated with their proliferation: the potentially high cost of micro software development within the functional areas and that we become dependent on them. Functional users desiring micros must analyze their needs, identify the potential benefits of using

micros, and compare those benefits to costs. They should also manage development of micro applications to ensure the preparation of adequate documentation. If we do not manage this micro evolution, we will be exposing ourselves to what a respected co-worker describes as the "hobby shop" approach to developing critical automated systems. The end result will be systems that do not work very well and are worthless when the developer leaves.

micro regulation—how?

If some form of regulation is needed, we have to determine what kind and how it should be applied. Rather than *regulate*, I prefer the term *manage*. We need to manage the acquisition and use of micros so as to make them an effective, reliable part of our work environment. Thus we must have procedures that enable us to define our requirements, identify alternative ways to satisfy the requirements, and select the best alternative. We need just enough regulation to stop proliferation. I submit that the procedures outlined in the AFR 300 series are sufficient for this type of regulation (management).

micro regulation—who?

Who should do the regulating (managing)? Whenever we start talking about regulation, we seem to wind up talking about bureaucracy. According to Derfler:

> The bureaucracy involved is seriously threatened by the flow of information that such systems provide. . . . but actually there is a strong perceived threat to the existing channels of communications and ways of doing things.

I strongly disagree. The bureaucracy (and I assume Derfler is referring to the data automators) does not have hang-ups about whether the information flows from our computers or someone else's. We are concerned about the data integrity problems caused by having redundant data collected and stored in different machines and about dependency on unreliable automated systems. Experience is a key factor in the development and use of automated systems—even micro-based systems.

Derfler answers the "who" questions as ". . . the job of the communicators on any base. They would not validate needs, but they would regulate compatibility in the same way that they ensure that intrabase radios programmed under the appropriate table of allowances can talk together." This amounts to standardization, and I concur that it is needed. Whether Air Force communicators should establish the standards is up to the communicators and the Department of Commerce, which publishes the Federal Information Processing Standards (FIPS).

My main concern is who will validate the need for micros and manage their overall use. The functional users and data automators have this responsibility for identifying the requirements and alternative solutions.

Also, communicators are not the only ones in the Air Force who are ". . . by mission, training, and experience, providers of high technology service." Computers performed many functions before they were integrated into the communicator's world.

Who, then, should be managing micros? I feel that the task belongs to the functional area managers and data automators with help from communications, contracting, logistics, finance, and many other experts to make our automated systems (including micros) a dependable, effective part of our Air Force.

Micros are proliferating in our office environment, and we need to apply controls now to ensure that they help instead of hurt us. The controls must be applied by functional users and data automators since these groups are closest to the action. Remember, just because micros are little and cute does not mean they lack the potential of causing large problems.

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books and ideas

LAOS
three perspectives on a secret war

MAJOR EARL H. TILFORD, JR.

FIVE years after the American withdrawal from Indochina, the war in Laos remains a mystery. From mid-1961, when President Kennedy made the American ambassador the de facto military commander in Laos, the conflict was shrouded in secrecy. Even today only glimpses of that war are becoming available.

The war in Laos was as complex as it was politically sensitive. It was a civil war—sometimes a three-way civil war—in which there was overt intervention from North Vietnam and covert involvement by the United States, the Soviet Union, and Communist China. Furthermore, there were diverse theaters of action in that small

country. In northern Laos the Royal Laotian Army (RLA) and Meo guerrillas, trained and supported by the Central Intelligence Agency (CIA), with American air support battled indigenous Pathet Lao guerrillas and North Vietnamese Army regulars. In southeastern Laos the North Vietnamese controlled the border area, where they operated the Ho Chi Minh Trail network funneling men and supplies to the war in South Vietnam. Pathet Lao guerrillas fought RLA units that menaced the trail while they extended their own control into central and finally western Laos.

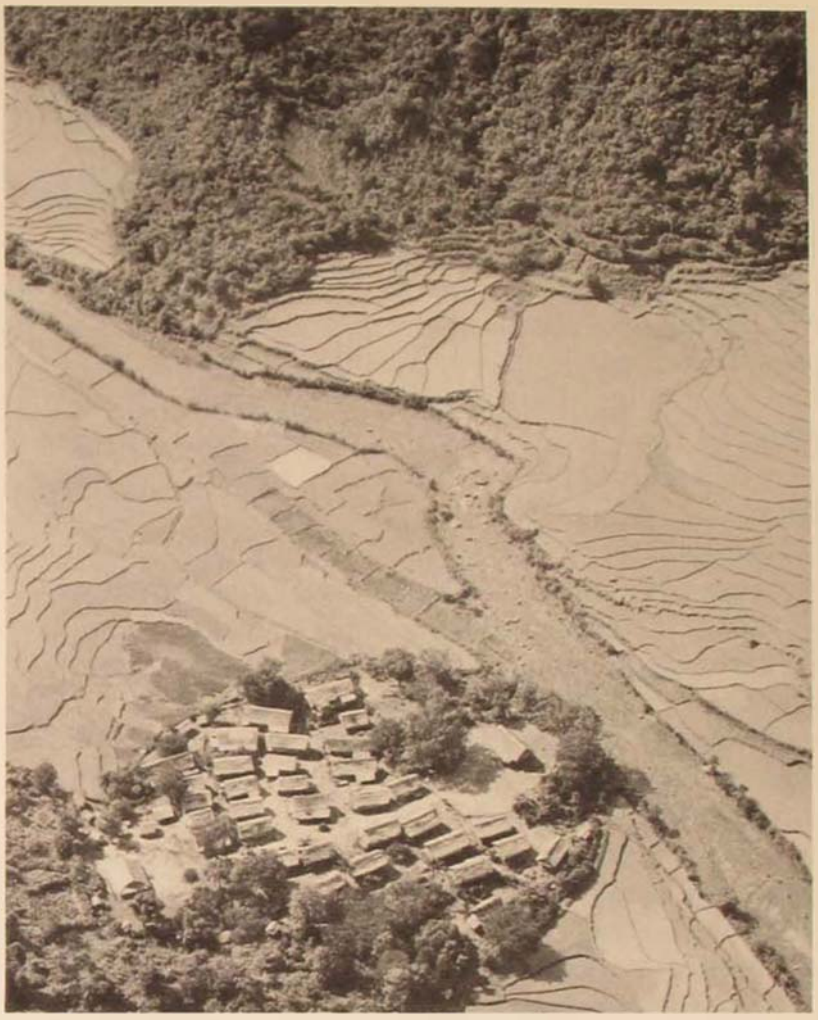
Likewise, the complexity of the political situation in Laos contributed to the overall sensitivity of the war. The country had not one but two capitals. There was an administrative capital in Vientiane which, while it was the seat of the neutralist government of Prime Minister Souvanna Phouma, also hosted representatives of the Pathet Lao. A hundred miles or so to the north was the royal capital of Luang Prabang, where the god-king Savang Vathana reigned as a figurehead ruler over all Laotians regardless of their political alignment.

In Vientiane rightists and neutralists intrigued against one another as they vied for power, while the Americans worked in secrecy to continue the war effort against the Pathet Lao and the North Vietnamese. Further complicating the situation, the Soviets and the Communist Chinese supported the communist forces in the countryside. For the Americans' part, the State Department, the Defense Department, the CIA, and the Agency for International Development were intertwined in the conflict, often at cross purposes, which may make the story of American involvement in Laos politically sensitive for a long while.

CLASSIFIED as fiction, John Clark Pratt's *Laotian Fragments* is actually only thinly disguised history in that most of the characters and incidents are based on fact.† Pratt takes the reader into the world of the Air Force's Raven forward air controllers (FACs), and Ravens were special indeed. Each pilot selected for duty as a Raven FAC in Laos had to have at least six months' experience in Southeast Asia. In Laos the Ravens were attached to the American Embassy, where they worked for the American air attaché and the ambassador. The ambassador had the authority to approve or disapprove any bombing mission in the politically sensitive war, where it was feared that one misplaced bomb might cause massive Chinese intervention. The Chinese Communists had several thousand workers and troops constructing a road from their border through western Laos to a point just north of the Thai border. Additionally, they had a "cultural" center in Xieng Khouang province.

Pratt, a former Raven FAC, has captured the spirit of the men who flew those risky missions where capture meant almost certain death. Ravens were considered an odd lot by the Air Force and, indeed, many of them encouraged the "Terry and the Pirates" image in their dress and life-style. Nevertheless, Raven FACs had a reputation for professionalism in the conduct of their job that has made them a very special part of the Air Force tradition. Although fictionalized history, *The Laotian Fragments* provides a good insight into one way that a conventional service like the U.S. Air Force can fight an unconventional war.

†John Clark Pratt, *The Laotian Fragments* (New York: The Viking Press, 1974, $7.95), 245 pages.

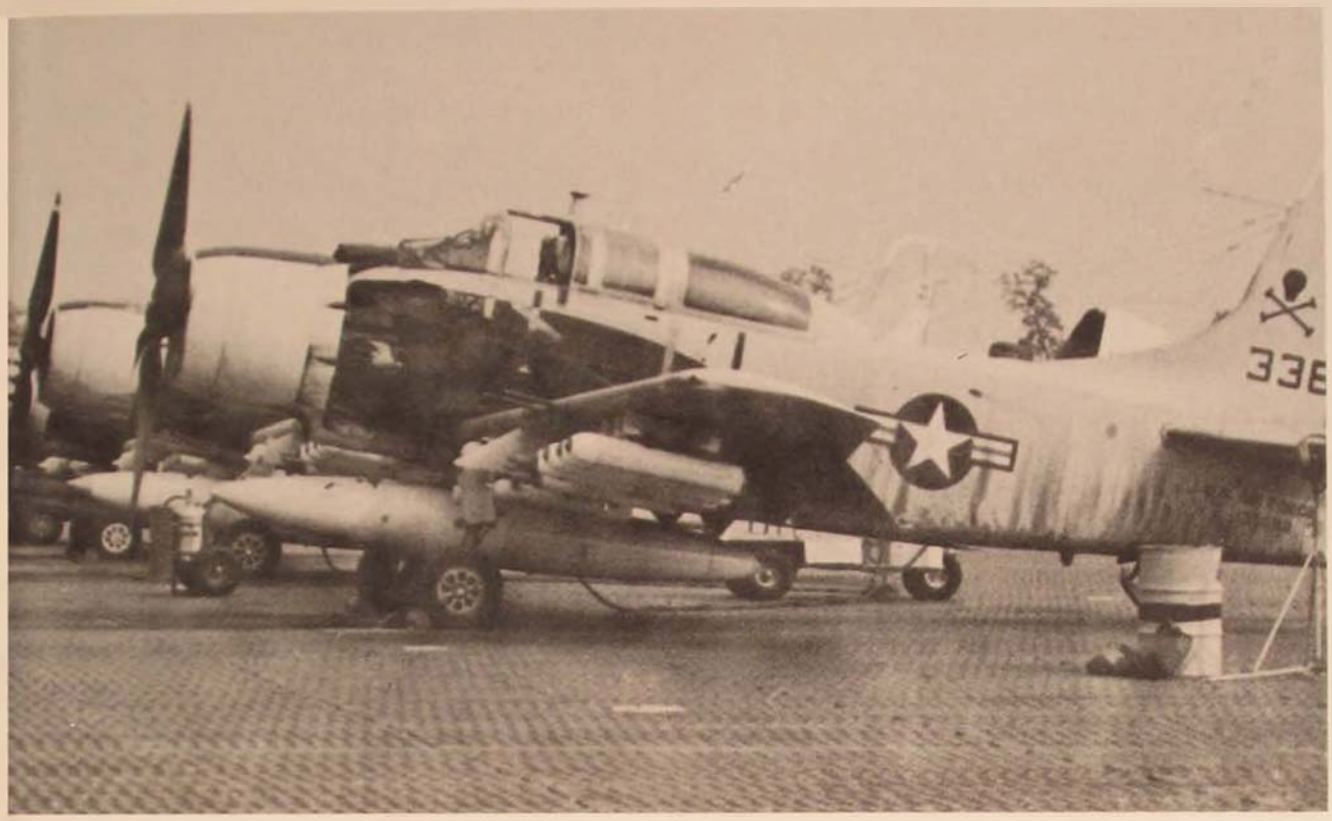


IN *Air America* by British journalist Christopher Robbins, the reader continues to delve into the Laotian war by examining the CIA's contract airline in action.† As enjoyable as *Air America* is, it is not a definitive history. Such a history will not be written until the CIA opens its files. Furthermore, the author relied on secondary works to a great extent and has, in some instances, flawed the book by relying on sources that were themselves based on fantasy as much as fact and conjecture instead of evidence.

Nevertheless, considering the dearth of available official sources, Robbins has made a valuable contribution to public knowledge of the war. His greatest contribution was to depict accurately the characters who flew for Air America. Through numerous personal interviews Robbins got to know the kind of adventurers who have worked for the airline from its beginnings at the end of World War II. In Laos there were several types, ranging from the freebooting soldier of fortune to the gung ho superpatriot out to stop communism to the old war-horses who had been dis-

†Christopher Robbins, *Air America* (New York: G. P. Putnam's Sons, 1979, $10.95), 323 pages.

Laos, a land of strange beauty and violent contrasts, is exemplified (facing page) by a government child-soldier and impressionistic patterns of a Laotian village surrounded by rice paddies near the eastern end of the Plain of Jars. . . . The equally strange and violent Laotian war involved USAF A-1E fighter-bombers (below), on strip alert at Nakhon Phanom Royal Thai Air Force Base.



carded by the services but still longed for the thrill of flying in combat.

In Laos there was plenty of combat flying. There, as elsewhere, Air America lived up to its slogan of "Anything, Anywhere, Anytime: Professionally." Throughout its turbulent history, which Robbins traced from the struggle for China after World War II through the fall of Saigon in April 1975, Air America hauled cargoes of supplies and men to areas too hot for more orthodox airlines and too sensitive for the military.

Robbins, by tracing Air America's operations in Laos, gives us a good account of the CIA's involvement in that war. Although the CIA has received some bad press over the past few years, in *Air America* it emerges as an efficient organization whose agents had a good understanding of the complex military and political situation in Laos. Because the Geneva Convention of 1962 forbade an American military presence in Laos, CIA officers took over the task of advising the Laotian military forces. These CIA officers, unlike military advisers in Vietnam, remained in Laos for longer than a year—many of them taking Laotian wives and making Laos their home. Consequently, they had a better understanding of the relationship that existed among culture, politics, religion, geography, and the war. While the United States committed half a million men to Viet-

An unmarked Air America C-123 (below) unloads at a landing site southeast of the Plain of Jars in the spring of 1966. . . . Prominent in its cargo are USAID supplies, marked with the clasped hands symbol, seen next to a government trooper (facing page, left). . . . The human reality underlying the political intricacies of the secret war shows in the face of a wounded neutralist trooper (facing page, right), evacuated from an overrun position by Air America helicopter.

nam in an effort to defeat the enemy with overwhelming firepower and superior numbers, in Laos the CIA-sponsored guerrillas, with significant American air support directed by Raven FACs, fought and often defeated Pathet Lao forces and regular units of the North Vietnamese Army.

The impact of Robbins's book may be lessened by the fact that he was not greatly experienced in Indochina. Names and places are sometimes inaccurate. He seems unfamiliar with some basic designators for military equipment, for instance the AK-47 assault rifle was called a "47 AK" on one occasion and F-4s from Udorn became "F-11s." Geographical locations were sometimes misnamed. In a discussion of Air America activities in South Vietnam, the provincial capital of Ban Me Thout became "Tan" Me Thout. These editorial indiscretions do not, however, detract from the overall high quality of an exciting piece of journalistic history.

A BOOK long awaited by students of the Indochina War, Dieter Dengler's *Escape from Laos* far exceeds expectations.†

†Dieter Dengler, *Escape from Laos* (San Rafael: Presidio Press, 1979, $10.95), 211 pages.

Dengler's tale began in early 1966 when his Navy A-1 Skyraider was shot down near the Mu Gia pass along the Ho Chi Minh Trail. His book is the story of his captivity and escape, and, in that respect, it is an absorbing adventure saga.

Beyond adventure, *Escape from Laos* provides important insights into the character of the Pathet Lao. One must be impressed by the totality of their commitment to fighting the "American aggressors." Unlike Dengler and his comrades, who if they were not killed or captured could look forward to going home at the end of a year's tour, the Pathet Lao realized that they were in the war for the duration, and their lives were built around prosecuting the war over the long haul. Furthermore, the Pathet Lao, although far from being supermen (many were boys and girls still in early puberty) were tough—sturdy enough to trek all day through the bush without sandals, thrive in the jungle that almost killed Dengler, and live on rations only a little better than those given their captives.

In his account of captivity along the trail, Dengler offers interesting information on the sociopolitical conditions in that area of Laos. What was generally perceived to be a society united in moving men and supplies from North Vietnam into South Vietnam turned out to be not so monolithic. According to Dengler, at one village, deep within the Ho Chi Minh Trail complex, armed men and women refused to let him and his Pathet Lao captors enter. Additionally, while most Lao-

tians he met were hostile, in several villages he was treated with kindness and sympathy.

ALTHOUGH the American experience in Southeast Asia is fading from memory, the attempts to understand that war are only just beginning. After the mea culpas on the Indochina War are finally completed, military officers ought to remember that special operations like those so integral to the conduct of the war in Laos are fundamental to a world where military and political aims are often indistinguishable. Meanwhile, the war in Laos, especially, remains blanketed in secrecy. These three books give important glimpses into three diverse facets of that conflict and provide an excellent starting place for further investigation.

U.S. Air Force Academy

THE SOVIET SYSTEM: LEVERS OF POWER AND INTERNAL DYNAMICS

DR. JOSEPH E. THACH, JR.

OVER two decades ago, one of the West's pioneer Sovietologists, the late Professor Bertram D. Wolfe of the Hoover Institution, observed that three primary "levers of power" had ensured the accrual of power and stability to the Soviet state throughout its history: the Communist Party apparatus, the secret police, and the armed forces. In his classic work, *Communist Totalitarianism: Keys to the Soviet System* (Boston, 1956), Wolfe further contended that other power foci among the Soviet party-state bureaucracy remained either minimal or transitory in comparison to this triad of power levers, especially in their respective abilities to influence policymaking within the Soviet leadership elite.

Since the publication of Wolfe's work, there have been considerable and progressively more sophisticated efforts among the Western analytical community to better define the inner workings of this Soviet politico-military elite. In recent years, the "interest group" approach has resulted in a sharper definition of the Soviet system's internal dynamics, with analytical appraisals of the interaction of these rival and symbolic elite subgroupings. It is also apparent, however, that Wolfe's trio of party, secret police, and military continues to wield a substantial measure of power and influence at the highest levels of the Soviet system which, to a great degree, further ensures the overall stability of the entire party-state structure.

With respect to the Communist Party of the Soviet Union (CPSU), the *primus inter pares* of Wolfe's trio of power levers, it may be safely stated that no Soviet leader has controlled the vast and intricate party apparatus quite so absolutely as Joseph Stalin. Most Western analysts of the Soviet scene agree that his three-decade grip over the CPSU and hence the Soviet state system was one of the most ruthless and absolute regimes in the

entire history of Russia, Communist or Tsarist. Whether he acted as CPSU General Secretary or Soviet Premier, all power and vital decisions emanated directly from Stalin and in his name.

ONE contemporary school of thought contends that Stalin was much more the traditional statist than revolutionary, even with his numerous excesses after he had gained control of the party-state leadership. In a recent work, Professor William O. McCagg, Jr., attempts to clarify this paradoxical image of Stalin with particular focus on the complex period between late 1943 and mid-1948, during which the U.S.S.R. made a difficult transition from total war to an uneasy victor's peace.† McCagg contends that key patterns of Soviet political behavior demonstrate that Stalin was a "force of order [as opposed to a force of movement]" in both foreign and domestic affairs over that five-year period. He further maintains that this dual image of Stalin, i.e., "statist *'vis à vis'* revolutionary," not only confused both Western leaders and high-level CPSU *apparatchiki* but also disoriented foreign communists since "even the Titos and Maos fervently believed that in their opposition to Stalin they were really doing what Stalin wanted—that somehow there could be no real conflict between their 'revolution' and Stalin's." (pp. 14-15)

With regard to the origins of the Cold War, a widely discussed and hotly debated historical issue in itself, McCagg's thesis is that Stalin encountered considerable difficulty in reasserting his absolute control over the Soviet party-state apparatus during the latter part of World War II and the early postwar years. Even if supported by various sources, mere statement of this thesis makes his work appear more tightly organized than it actually is. Similarly, a good portion of his supporting evidence appears rather tangential to his major argumentary proofs. While it may have been true, for example, that the Soviet people justifiably anticipated a higher quality of life in postwar U.S.S.R., there is precious little evidence that Stalin's absolute control of the party-state machine was, in fact, threatened even to a minor degree because of these rising expectations. Nor is there much proof that foreign communist leaders manifested anything other than total loyalty to and dependence on the U.S.S.R. Yugoslavia, the sole exception, was expelled from the Soviet bloc in 1948 but only after a two-year period of intensive dialogue between Stalin and Tito. In this manner, then, the work appears somewhat tendentious and uneven in its presentation of both facts and findings.

The author's presentation of Stalin's apparent perspectives on peace and war is also open to serious question. While McCagg claims that Stalin established the Communist Information Bureau (Cominform) in September 1947 primarily because of his alleged dread of an Anglo-American attack, this move also did much to heighten awareness in Western Europe and the United States of Soviet ambitions beyond the Iron Curtain. Therefore, it helped spark the consolidation of Western resolve that led to the eventual creation of the NATO alliance during the 1948-49 Berlin blockade. McCagg's attempt to link Stalin's 1950 essays on linguistics to the outbreak of the Korean conflict and the Soviet dictator's risk of a possible worldwide conflict with those hostilities merely to placate his party critics are both uncharacteristic of Stalin as a Soviet leader and of contempo-

†William O. McCagg, *Stalin Embattled: 1943-1948* (Detroit: Wayne State University Press, 1978, $18.95), 423 pages.

rary events within the CPSU and the Soviet state. This correlation of events also is open to question, particularly after the *Zhdanovshina* of 1946-48, when Stalin either removed or otherwise intimidated his potential rivals. Consequently, Stalin's role in the origins of the Korean War and other pressures on the West are much more symptomatic of his absolute power than of any possible instabilities or vulnerabilities within his regime. While this work examines a highly interesting period in Soviet affairs, its analysis and conclusions still fall short of the mark as the last word on the subject.

The key role of the secret police apparatus, the second of Wolfe's perceived "power levers," has revealed itself in many variations throughout the sixty years of Soviet rule. If KGB involvement in the official campaign against domestic dissidents has gained global attention over recent years, the employment of internal terror to ensure systemic stability has been recognized as consistent with the Soviet past. For example, the secret police/internal security apparatus has played a particularly significant role in the large-scale suppression of various Soviet nationalities and ethnic minorities. Initiated on even the slightest pretext of anti-Soviet activity, these campaigns have been particularly well documented in Western writings.

A NOTED Russian emigré historian, Aleksandr M. Nekrich, provides a detailed account of the massive deportation of nearly two million Soviet citizens from the Crimea and the Caucasus during the latter part of World War II.† Nekrich was forced to emigrate after his 1966 book, *June 22, 1941*, placed him in considerable disfavor with the Brezhnev regime for its scathing portrayal of Stalin's failure to adequately prepare his nation to meet the Nazi invasion. As a very prominent Soviet historian, Nekrich had considerable access to source materials on these forced emigrations. From his own wartime Red Army service, where he first learned of these tragic events from actual participants, Nekrich maintained a continued interest in this affair at great personal risk over the next two decades as he conducted numerous interviews with victim and executor alike.

Since he prepared the original manuscript while still in the Soviet Union, it naturally reflects little evidence of postwar Western scholarship on the subject (particularly the works of British author Robert Conquest) and no mention whatsoever of Aleksandr Solzhenitsyn's topical coverage in his *Gulag Archipelago*. If the work lacks a bibliography, Nekrich compensates for it with an in-depth discussion of source materials, the majority of which are little known in the West.

To be sure, Nekrich portrays the plight of the Crimean Tatars and the Chechen-Ingush and Balkars in the Caucasus in very stark terms. Under heavy German pressures to form anti-Soviet combat units after their homelands were overrun, these ethnic groups resisted in spite of numerous arrests, executions, and other intimidating measures during the Nazi occupation. Unfortunately, the Soviet leadership presumed otherwise after the tide of war had turned and initiated the massive NKVD-led deportation of these peoples to Central Asia. Beyond that tragic affair, Nekrich covers the very minimal official Soviet efforts in the post-Stalinist era to implement laws that exonerated these nationalities and guaranteed the restoration of their homes and rights. The various groups experienced delays in returning to their

†**Aleksandr M. Nekrich, *The Punished Peoples: The Deportation and Fate of Soviet Minorities at the End of the Second World War* (New York: W. W. Norton, 1978, $10.95), 238 pages.**

homelands of up to five years; for the Crimean Tatars, official relocation still has not taken place. The complicity of the Soviet secret police apparatus, in both the massive deportations and the later delays in restoring the minorities' lawful rights, is particularly apparent as is Nekrich's underlying inference that the Great Russian-dominated Soviet party-state apparatus continues to mistrust its non-Russian subjects. If the work has some basic shortcomings (mainly focused on the need to further refine its findings after Nekrich arrived in the West), it does have much to offer in showing the extreme measures that the Soviet elite has taken in order to ensure its internal stability.

As for the final power lever, it may be argued that the Soviets themselves have provided extensive source materials on their vast and modern military establishment. Two such works, key translations in the U.S. Air Force "Soviet Military Thought" series, go a long way in characterizing the Soviet Armed Forces in terms of their contemporary strategy, doctrine, missions, and organizational structure. The first of these, by the late Minister of Defense, Marshal of the Soviet Union A. A. Grechko (1903-76), portrays the Soviet military establishment as a leading instrument of Soviet power and policy since the Bolshevik Revolution.† In particular, Grechko made a concerted effort to identify and discuss the major sources of Soviet military power, the most prominent of which he characterizes as:

—The innate "superiority" of Soviet military science;

—Soviet "scientific-technological progress" in modern weapons development;

—Intensive training and readiness programs;

—Firm support for national defense programs by the Soviet national economic and social sectors; and

—The CPSU's "outstanding leadership and direction" of the Soviet military.

If there is a familiar ring to this factorial quintet, it is probably because it represents an updated version of Stalin's "Five Permanent Operating Factors" that guided Soviet military doctrine during the Great Patriotic War of 1941-45 and well into the postwar period.

Grechko covers in sequence the Soviet Armed Forces' historical development from 1917 to the 1970s (Chapters 1-3), the military impact of Soviet society, its national economic and technological sectors (Chapters 4 and 5), military C^3I systems (Chapters 7 and 8), and other vital areas such as military training, political indoctrination, and troop morale activities (Chapters 6, 9, and 11). Separate coverage of the principles of Soviet military science (Chapter 10) and international military cooperation among the "socialist community," i.e., pro-Soviet Communist states (Chapter 12) completes Grechko's survey.

With an extensive discussion of the Soviet Armed Forces' five components by role and mission, he especially emphasizes the current Soviet capabilities for warfighting and war survival. Likewise, his comments on Soviet civil defense assert that it "plays a great part in unifying the Armed Forces and the people" and that its capabilities "will give inestimable help to the Armed Forces in winning victory over the enemy by insuring the defense of the rear and the normal functioning of the national economy." (p. 135) Coupled with the contextual stress on the Soviet military's much improved technological capabilities to conduct modern warfare at both the strategic and theater levels of operations, these comments clearly demonstrate

†Marshal of the Soviet Union A. A. Grechko, *The Armed Forces of the Soviet State* (Washington: Government Printing Office, 1977, $3.25), 349 pages.

the vast impact of the post-1960 "Revolution in Military Affairs" on all of its force components. If not the intellectual equal of Marshal V. D. Sokolovskiy's earlier *Soviet Military Strategy*, Grechko's work does remain the most recent official Soviet view of its military forces and deserves careful consideration in the West as the U.S.S.R. enters the 1980s.

THE other work, Colonel A. A. Sidorenko's *The Offensive*, served as the initial volume for the U.S. Air Force translation series in 1973.† Published about the time of the October 1973 Middle East War when Soviet-trained Arab forces demonstrated the sophisticated efficiency and offensive orientation of modern Soviet combat technology and tactical operations, the volume served as a doctrinal counterpiece which helped alert the West about the grave threat posed by the Warsaw Pact's general purpose and theater nuclear forces. First published in the U.S.S.R. three years earlier, the prize-winning treatise represented a veritable literary watershed for its presentation of Soviet combat doctrine during the first decade of the still developing "Revolution in Military Affairs" period. Its major conceptual emphasis on surprise, round-the-clock combined arms operations, high rates of advance, massive nuclear and conventional firepower, and the ordered echelonment of strike forces for the conduct of either nuclear or conventional operations reflects the very essence of Soviet military doctrine for modern warfare. The dynamic and aggressive nature of Soviet offensive doctrine is further underscored in its expressed aims to destroy enemy ground forces by means of large-scale, combined arms assaults which are intended from the outset to be "bold, decisive, full of initiative and calculated for the rapid destruction of the enemy." (p. 140) Sidorenko also stresses that superior military technology is not sufficient in itself to guarantee success in battle; rather, "war is waged by people, and man always was and will remain the deciding force in armed conflict." In his view, "ideological stability and conviction of the correctness of the cause" is at least as important to the Soviet military as its modern weaponry and combat doctrine. (p. 222)

Like Grechko, his stress on the CPSU's dominant role over the entire Soviet politico-military sphere represents neither idle boast nor mere flattery. Rather, it indicates that the CPSU has been and remains the clear master of the entire Soviet state system. If the military and the secret police continue to wield such extensive influence and power, their full subordination to the CPSU leadership elite must not be ignored or underplayed as the U.S.S.R. enters the 1980s.

Annandale, Virginia

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†Colonel A. A. Sidorenko, *The Offensive* (Washington: Government Printing Office, 1973, $1.70), 228 pages.

THE WESTERN ALLIANCE AND THE PRESIDENCY

DR. THOMAS R. MADDUX

THE Soviet Union's invasion of Afghanistan in December 1979 and the crisis with Iran over the American hostages have intensified concern about the United States' ability to defend its national interests and lead the Western alliance against Soviet expansionism. The recent disagreements among the Western allies over issues of inflation, energy, and trade protectionism have bolstered questions as to whether the United States and its NATO allies could put aside their differences in order to cooperate against the Kremlin's advances. These crises, moreover, have reawakened the public's awareness that, in crisis situations, the enormous powers and responsibilities of the President bring the White House to center stage with enhanced opportunities for public support and criticism. These current crises and President Jimmy Carter's response to them provide a pertinent perspective for assessments of the status of the Western alliance and presidential decision-making.

THE Western alliance was reviewed in a provocative but flawed analysis by Mary Kaldor, a Fellow of the Science Policy Research Unit at the University of Sussex.† Kaldor traces the disintegration of the West to conflict among the members of the alliance as opposed to significant shifts in the Cold War conflict. Thus she persuasively stresses the real conflicts of interest on monetary policy, trade, oil, and defense issues of weapons procurement and general policies. Kaldor notes that behind the disagreements on these issues a deepening conflict exists between parochial forces representing labor and domestic producers and internationalist forces led by multinational corporations.

Diplomats on both sides of the Atlantic should heed Kaldor's analysis of conflict within the Western alliance, but there is a quasi-deterministic quality to her assessment. She assumes, for example, that the problems within the alliance are unresolvable unless there is radical social change, which is never very well-defined by the author. This reflects her assumption that conflict among nation-states results from domestic economic and social conflict, with the multinational corporation being the most important source. In a chapter entitled "The Corporation and the State," Kaldor asserts that the state's main functions are to promote corporate expansion and preserve a stable society with corporate hegemony. She also stresses the critical impact of conflict between American capitalism and world capitalism. This represents, however, not only a rather narrow perspective on the functions of the modern welfare state but also a dismissal of the role of astute statesmanship. The history of the Western alliance and NATO from its origins in the Cold War to the present suggests that there has always been substantial conflict of interest. But this conflict has often been managed successfully, in part as a result of the perceived threat from the Soviet Union and skillful diplomacy.

The most serious flaw in Kaldor's assessment is her dismissal of the Cold War conflict with the Soviet Union as a ritual

†Mary Kaldor, *The Disintegrating West* (New York: Hill & Wang, Inc., 1978, $10.00), 219 pages.

designed to mask the deeper conflict within the Western alliance. Thus Kaldor views the emergence of the NATO alliance and rearmament of West Germany as primarily designed by the United States to prevent the creation of an independent power bloc. This interpretation, which relies on revisionist historians who have been severely criticized on many grounds, ignores not only the impact of Soviet-American estrangement but also the complex nature of policymaking (pp. 17-18).[1]

Kaldor further denigrates the reality of the Cold War in her chapter on "East versus West." Whereas the West is fundamentally expansionistic because corporations must expand or die according to the author's assumptions, the Soviet Union lacks this "compulsion to expand, although the leadership may have particular expansionist ambitions." (p. 31) Soviet expansionism as a result of traditional national ambitions, the influence of Marxist-Leninist ideology, or competition with China receives little consideration from Kaldor. Instead, she views Soviet policy toward the Third World after 1955 as defensively designed to force the West into détente and weaken the American monopoly in this area. Most specialists on Soviet policy, however, consider the Soviet pursuit of power and influence in the Third World since 1975 as a relentless and skillful exploitation of opportunities that has disrupted regional balances of power.[2]

The Soviet invasion of Afghanistan highlights the serious flaws in Kaldor's analysis. The Kremlin's willingness to overthrow a government and send in the Red Army contradicts her assertion that "it would be wrong to interpret this political Soviet interest in the Third World as expansionist." (p. 42) The way in which the crisis has stimulated unity in the Western alliance is also illustrative of the critical influence of the Cold War in contrast with Kaldor's preoccupation with clashing corporate capitalism. Finally, at a time of international crisis, Americans turn to the President for leadership, but Kaldor fails to consider the impact of different policymakers on the Western alliance.

IN a thorough study of the U.S. presidency, Richard Pious, a political scientist at Barnard College, corrects Mary Kaldor's neglect of policymakers.† Pious concludes that the U.S. presidency is simultaneously too strong in some areas and too weak in others. The weakness rests in the President's political powers, for Pious believes that the President neither gains much of an effective mandate in elections nor is able to use party machinery to maneuver domestic programs through Congress. Pious is particularly sensitive to the complex relationship among the executive branch, Congress, and the bureaucracy, in which the President's chain of command principle competes with the checks and balance principle of Congress. Standing between the President, his staff, and the cabinet on the one hand and Congress on the other are the careerists in their bureaus who may serve or obstruct the White House.

The President's prerogative powers include far more than the enumeration of specific powers in Article II of the Constitution, for, as Pious points out, the great presidents have interpreted their powers far beyond the specifics of Article II. Pious's discussion of foreign policy is particularly revealing on this issue. The President has always used prerogative powers to make foreign policy, whereas Congress has only rarely dominated in this area and sometimes

†Richard M. Pious, *The American Presidency* (New York: Basic Books, 1979, $16.00), 491 pages.

checks Presidential initiatives. Instead, the executive's major problem has been to manage the executive branch, particularly the national security bureaucracies.

Pious's assessment of the results of a "too weak, too strong" presidency is not entirely persuasive. Faced with weakness in domestic affairs, the author concludes that presidents have and will turn to prerogative government in foreign affairs: "In real or manufactured crises they institute forms of prerogative government, and such crises will continue to occur precisely because presidents remain too weak to manage most problems until they get out of hand." (p. 422) A review of the presidents of the sixties and seventies, however, does not support Pious's prediction. Although some revisionist historians assert that John Kennedy sought out foreign policy crises when faced with resistance in Congress to his New Frontier domestic program, Kennedy exhibited a strong orientation toward foreign policy before the stalemate with Congress, and on priority issues such as a tax cut and civil rights legislation in 1963 Kennedy persisted against stubborn opposition.[3] Richard Nixon also started off with an inclination toward foreign affairs, and Lyndon Johnson's career directly contradicts Pious's admonition. Despite success with Congress and a massive electoral mandate, Johnson turned to Vietnam and prerogative government in a deceptive, manipulative manner that ultimately undermined much of his domestic program and his presidency. President Carter, on the other hand, may be the best candidate for Pious's model. Americans wanted the President to solve the problems of inflation, unemployment, energy, and post-Vietnam foreign policy, but all of these issues except unemployment have intensified since 1976. Carter certainly did not seek out the Iranian or Afghanistan crisis; yet he has relied on prerogative powers to handle both situations.

PIOUS and the authors of a valuable study on presidential decision-making—Colonel Richard G. Head, USAF, Colonel Frisco W. Short, USA (Ret), and Lieutenant Colonel Robert C. McFarlane, USMC—disagree on the merits of the War Powers Resolution of 1973, a significant effort to curb the President's prerogative powers.† The resolution does not change the conditions under which the President as commander in chief can resort to force, but it does introduce new requirements for consultations before the use of force and an automatic cutoff of a "presidential war" within sixty days unless Congress makes a declaration of war, a concurrent resolution, or provides specific statutory authorization. Pious hopes that the resolution will increase collaboration in foreign affairs and set "stricter standards for the exercise of prerogative powers in genuine national emergencies." (p. 422) Yet in practice he concludes that the Ford administration in the *Mayaguez* incident in 1975 briefed but did not consult with congressional leaders in the sense of asking for their views of what should be done when Cambodian Khmer Rouge forces seized a vessel of U.S. registry with American crew members. (pp. 403-15)

The authors of *Crisis Resolution* offer a different but unpersuasive perspective. Although they commend President Ford for his consultation, they make no distinction between consultation and merely informing congressmen about the White House deci-

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†Richard Head, Frisco W. Short, and Robert C. McFarlane, *Crisis Resolution: Presidential Decision-Making in the Mayaguez and Korean Confrontations* (Boulder, Colorado: Westview Press, 1978, $20.00), 323 pages.

sions to use aircraft to prevent the movement of the crew from an island to the mainland. Head, Short, and McFarlane question the value of the resolution because extensive consultation would not only "jeopardize the security and speed of the decision-making process" but also "suggests unreliability in U.S. behavior" and "may engender public debate in a period when quiet diplomacy is needed to avoid conflict." (pp. 254-55) Despite its ambiguities and limitations, the resolution does not require consultation with 535 members of Congress. In the aftermath of Vietnam it would seem particularly important that a President faced with a decision to introduce U.S. forces into hostilities ensure that Congress not only be briefed on the crisis situation but also provide input into the decision-making process.

Crisis Resolution offers a thorough review of decision-making in a crisis context and especially good case studies of the *Mayaguez* incident and the Korean tree crisis of August 1976. Using interviews of key participants, Head, Short, and McFarlane effectively criticize the 1976 report of the Comptroller General on the *Mayaguez* incident (pp. 144-46).[4] The General Accounting Office (GAO) review, for example, criticizes President Ford's decision to use force before further diplomatic approaches. The authors, however, point out that memories of the *Pueblo* affair in 1968 highlighted the necessity to act fast when the Cambodian government failed to respond to Washington's initial approaches. The quick use of force may also have prompted Cambodia to release the ship and crew before further escalation took place. By indicating the time that each action took place, the authors make the introduction of Marines onto Koh Tang Island and their difficult withdrawal on the evening of the same day more understandable than the GAO report.

The Korean tree crisis merits the overall approval that *Crisis Resolution* extends to the White House. Beginning with the North Korean murder of two American officers supervising the trimming of a poplar tree in the Joint Security Area of the Korean Demilitarized Zone (DMZ), the White House responded in a measured way that included a show of force, the removal of the tree and illegal North Korean gates, and demands for North Korean acknowledgment of responsibility and punishment of the murderers. A message of regret from Kim Il-sung was ambiguous, but negotiations did create a new Joint Security Area to keep the military personnel of both sides separated.

THE current crises with Iran and Afghanistan provide a good perspective on the strengths and weaknesses of the three books under review. The intensification of the Cold War flowing from Afghanistan discredits Kaldor's dismissal of the Cold War as a ritual, although there are muted undertones of disagreement within the Western alliance that reflect different perspectives, priorities, and some of Kaldor's economic concerns. The central role of the President's prerogative powers highlighted by Pious's analysis is fully confirmed by the way Americans have turned to President Carter for leadership in both situations. Head, Short, and McFarlane suggest that Americans want thoughtfulness, firmness, and success in crisis decision-making. President Carter has fallen short in all three categories, partly because of his failure to integrate force and diplomacy. On Afghanistan, Carter's admission of misinterpretation of the Kremlin's intentions and Washington's failure to aid the anti-Marxist, anti-Russian forces in Afghanistan has weakened the President's record. The crisis may finally force the United States to develop a coherent strategy to deal with Soviet expansionism as Stanley Hoffmann argues,

> to wage both cooperative competition and confrontations at the same time, and to do so even when, at a

given moment, the United States seems faced by more challenges than collaboration.[5]

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Notes

1. Kaldor relies on revisionist historians such as David Horowitz, William Appleman Williams, Gar Alperovitz, Denna Frank Fleming, and Walter LaFeber, who, with the exception of LaFeber, view Soviet policy as defensive, nonexpansionistic, and eager to cooperate with the West after 1945. For a more balanced view of the forces shaping U.S. policy and the complex process involved in policymaking, see Scott Jackson, "Prologue to the Marshall Plan: The Origins of the American Commitment for a European Recovery Program," *Journal of American History*, March 1979, pp. 1043-68.

2. Kaldor, pp. 39-43. The following authors differ somewhat in their emphasis on Soviet objectives and appropriate U.S. strategy, but they all reject Kaldor's interpretation: Donald S. Zagoria, "Into the Breach: New Soviet Alliances in the Third World," *Foreign Affairs*, Spring 1979, pp. 733-54; Robert Legvold, "The Super Rivals: Conflict in the Third World," *Foreign Affairs*, Spring 1979, pp. 755-78; Stanley Hoffmann, "Muscle and Brains," *Foreign Policy*, Winter 1979-80, pp. 3-27; Dimitri K. Simes, "The Anti-Soviet Brigade," *Foreign Policy*, Winter 1979-80, pp. 28-42.

3. For revisionist views on Kennedy, see Bruce Miroff, *Pragmatic Illusions: The Presidential Politics of John F. Kennedy* (New York, 1976); and Richard J. Walton, *Cold War and Counterrevolution: The Presidential Politics of John F. Kennedy* (Baltimore, 1972). For more balanced assessments, see Carl M. Brauer, *John F. Kennedy and the Second Reconstruction* (New York, 1977); and Jim F. Heath, *Decade of Disillusionment: The Kennedy-Johnson Years* (Bloomington, Indiana, 1975).

4. *Seizure of the Mayaguez*, Report of the Comptroller General of the United States, 94th Cong., 2d Sess., October 4, 1976.

5. Hoffmann, p. 27.

SAVING THE WORLD

disarmament, peace, and negotiation

CAPTAIN STEVEN E. CADY

AS LONG as weapons exist, so does the danger of their use. This fact is the basis for the arguments of two very different schools of thought. Many if not most of those who urge policies of disarmament rely on that fact to demonstrate the folly of increasing or even maintaining both national and global strategic profiles. By eliminating weapons, one simultaneously eliminates the risk of their use and, concomitantly, the risk of war.

Those who urge expansion of the nation's strategic profile agree thoroughly that the existence of weapons poses a clear threat to peace, yet reach an entirely different conclusion. They argue that, precisely because a danger exists, one must be prepared to meet it and meet it in kind. Unlike adherents of the first school of thought, however, partisans of weapon proliferation virtually never speak in global terms, contending instead that their own nation must expand its weaponry in order to reestablish the balance of power in the world.

Implicit in the thinking of the first group is the hope that man is willing and able to curb his aggressiveness, negotiating a policy of peaceful global coexistence—or, at least, a policy of strictly nonmilitary global competition. Underlying the rationale of the second group is the belief that human nature precludes trusting one's enemies: if they have weapons, they will use them; and even if they ostensibly agree to a disarmament policy, they will cheat, waiting until one's own trusting homeland has lowered its defense posture and then either attacking it or threatening it into submission. In other words, the first group looks at mankind and hopes for the best; the second group looks at man and plans for the worst.

Is it impossible to synthesize these two positions? Is it unrealistic to hope for the best

while planning for the worst? Most nations would undoubtedly aver that such is precisely their policy. They strive to find peaceful, diplomatic means for settling international differences but reserve the right to employ force if it proves necessary for them to do so. Unfortunately, one finds no real consensus definition of the phrase "if necessary." Like beauty, necessity is usually in the eye of the beholder. However, some recent literature takes preliminary steps in the direction of defining the word *necessary;* and, more important, in the direction of resolving the tension existing between those looking forward to the best and those girding themselves for the worst.

MOST of man's thinking and behavior rests on past experience, and this observation holds true for collective national behavior as well as for individual behavior. *Disarmament & Nuclear Tests 1960-63*† and *Disarmament & Nuclear Tests, 1964-69*†† provide excellent background material dealing with the basis of current global expectations of continued weapons proliferation. The two volumes in question put forward no thesis; instead, they present news stories outlining objectively the successive ups and downs of nuclear negotiation. They provide anyone interested in peace with the background needed to understand why one cannot be either completely optimistic or completely pessimistic about man's capacity for handling awesome weapons intelligently.

In similar fashion, *Negotiating Security: An Arms Control Reader* provides historical perspectives with regard to negotiating both nuclear and nonnuclear arms control.† Unlike the first two volumes, the articles in *Negotiating Security* make no pretense of being objective. Each selection argues a particular point of view; but so diverse is the range of opinion included that, as in the case of an objective historical overview, the reader is left to formulate his own conclusions. Overall, therefore, the volume is an objective, balanced presentation.

The *Peacekeeper's Handbook*,†† published by the International Peace Academy, serves as an exercise in practical peacekeeping negotiation. It differs from the first three works in setting forth and supporting a definite thesis: namely, that the role of third-party peacekeepers is to be prepared for essentially anything, from suave diplomatic negotiations to surprise attack to worldwide criticism, and that peacekeepers must (1) hold firm to their resolve to preserve the peace but (2) retain complete flexibility with respect to the methodology for enforcing peace.

In *Is America Becoming Number 2? Current Trends in the U.S.-Soviet Military Balance*,††† the Committee on the Present Danger presents a balanced review of pertinent data, arriving at a firm conclusion: the Soviet Union

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†**Lester A. Sobel, editor, *Disarmament & Nuclear Tests, 1960-63* (New York: Facts on File, 1964, $3.45 paper), 120 pages.**

††**Vojtech Mastny, editor, *Disarmament & Nuclear Tests, 1964-69* (New York: Facts on File, 1970, $4.45 paper), 254 pages.**

†**William H. Kincade and Jeffrey D. Porro, editors, *Negotiating Security: An Arms Control Reader* (Washington: Carnegie Endowment for International Peace, 1979, $11.00), 321 pages.**

††***Peacekeeper's Handbook* (New York: International Peace Academy, 1978, no price given), 14 pages.**

†††***Is America Becoming Number 2? Current Trends in the U.S.-Soviet Military Balance* (Washington: Committee on the Present Danger, 1978, no price given), 46 pages.**

has outstripped the United States in terms of military preparedness and possibly also in terms of willingness to use its military capacity. Accordingly, the existing world order is highly unstable—a danger not only to the U.S. but also to all other nations. Rapid, vigorous steps to reverse the trend toward a low American military posture must be taken quickly and uncompromisingly.

The *Reader on Nuclear Nonproliferation*,† a compendium prepared for the Senate Subcommittee on Energy, Nuclear Proliferation, and Federal Services by the Congressional Research Service of the Library of Congress, is another well-balanced presentation of differing opinions concerning the control of nuclear devices, both weapons- and energy-related. Although its historical overview of such thinking stretches from the dawn of the nuclear age, circa 1946, to the present day, the bulk of the volume concentrates on current thinking, emphasizing the period from 1976 on. The book reflects growing concern about nuclear proliferation among thinkers of all sorts without a genuine consensus about how to cope with the situation—nonproliferation, or more rigid safeguards, or decentralization of nuclear authority being some of the alternatives discussed. Once again, the reader must make up his own mind.

In *Warning and Response: A Study of Surprise Attack in the 20th Century and an Analysis of Its Lessons for the Future*,†† Julian Critchley makes no such demand on the reader. He gladly expounds his own conclusions, most of them revolving around his premise that it is not enough to have even the most accurate intelligence concerning the enemy; one must also be able to interpret properly the data gathered. According to Critchley, the principal difficulty in interpreting such data involves what psychologists call "projection"—imputing one's own beliefs and motives to others. Virtually every concrete example of surprise attack reviewed by Critchley involves the problem of a nation misunderstanding the intentions, and often the capabilities, of an enemy—or of not identifying a certain state correctly as an *enemy*.

Disarmament and Peace

Few authorities believe that disarmament in the near future would really further the cause of peace. The International Peace Academy defines *peace* as "a condition that exists in the relations between groups, classes or states when there is an absence of violence (direct or indirect) or the threat of violence."[1] On the face of it, this definition contradicts the statement preceding it. After all, disarmament would seem to be a definite step toward eliminating both violence and the threat of violence from the face of the earth. However, there is simply no reason to believe that unilateral disarmament by any major power—including even the Soviet Union—would serve the cause of world peace in the near future.

The principle of the balance of power is too familiar to bear repetition here. Useful, however, is a reminder of the view of man underlying that principle: man is selfish, untrustworthy, and aggressive. Man is potentially capable of being controlled by appeals to his higher faculties, his reason, his compassion—but man can definitely be controlled only by threats to his personal security. Furthermore, if man fails to be con-

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†***Reader on Nuclear Nonproliferation*** **(Washington: Government Printing Office, 1978, no price given), 504 pages.**

††**Julian Critchley,** ***Warning and Response: A Study of Surprise Attack in the 20th Century and an Analysis of Its Lessons for the Future*** **(New York: Crane, Russak and Co., 1978, $14.00), 123 pages.**

trolled, he will attempt to dominate other men. History, alas, confirms that these underlying principles are all too accurate, and the advent of weapons of unprecedented destructive power has not changed man's nature.

History also shows that the foregoing observations are universal in their applicability; they describe American man as accurately as they do Soviet man or Chinese man. The Soviet Union's efforts to achieve world domination[2] certainly represent the most immediate threat to world peace today; but there is little reason to believe that any state, regardless of the professed nobility of its intentions, could resist the temptation to dominate the world if only it had the opportunity to do so. For one thing, the lofty principle of a united globe has long existed as one of man's ultimate goals; but history demonstrates that most states have achieved unification not so much as the result of noble purposes but as a result either of having to deal with a powerful, common enemy or of being conquered and unified by a tyrant. Moreover, economic imperatives indicate that a world unified by a nation with a fully developed industrial capacity would be a distinct advantage to that nation's further economic growth.

These and similar considerations at least suggest that were the Soviet Union to disarm unilaterally the United States might well be unable to resist the temptation to unify the world. In other words, even under the disarmament circumstances most favorable from the American standpoint—a divested Soviet Union and a strong U.S.—disarmament poses a very real potential threat to world peace.

Tangentially, I believe that American multinational corporations have acquired far too great an influence on the nation's foreign policy—an influence that seems to be increasing and which inevitably affects U.S. military policy both directly and indirectly. Our society certainly depends on a strong and free marketplace, but it is not for businessmen to influence what should be military decisions—they have neither the training nor the requisite global view for such a function.

The argument against unilateral disarmament does not apply in the case of genuinely universal disarmament. With no significant weapons at its disposal, no nation could dominate another militarily. However, man is neither so trusting nor so naïve an animal as to permit universal disarmament in the foreseeable future. It is extraordinarily difficult if not altogether impossible to disarm confidently, especially where there is a history of mutual suspicion between states. Although intelligence-gathering techniques continue to increase in sophistication, no authority believes that a nation dedicated to the purpose could not successfully conceal a sufficiently extensive strategic capacity to enable it to conquer a fully disarmed enemy. Consequently, it seems unreasonable to assume that any nation would really comply with a total disarmament policy—because that nation would not expect other nations to comply with it.

Experience colors expectations, and expectations influence behavior if not actually dictating it. This principle runs through all disciplines involving human behavior, from religion and economics to politics and military science. As Julian Critchley points out, "The capabilities of an enemy can be measured—not so his intentions. . . . For it is a natural tendency to project one's own sets of values upon others. Despite an awareness that the enemy is different, it is very hard to stop expecting him to act in the same way as oneself."[3] That is why an understanding of Soviet and Chinese psychology is so imperative for the pursuit of effective foreign and military policy. Psychologists call an analogous principle that of "field theory," meaning that a therapist must be able to enter into a patient's perception of the world and of his place in it before he can help the patient.

It is at this point that the writings about disarmament and those concerning negotiation reach a parting of the ways. By truly understanding the basis of behavior, whether of a society or of an individual, one can help alter the behavior and the attitudes shaping it. Although Richard Falk does not in any way disagree with Critchley's stand that one must study history in order to understand the motives and expectations of one's enemies, Falk does argue against assuming that history necessarily repeats itself:

> My argument is premised upon another more positive image of an historical and cultural evolution that proceeds according to spiral forms, going back but at a higher level, in a different setting, acting as a rediscovery that builds upon the insufficiencies of what preceded and might otherwise emerge. In this view, the future is neither a projection of the past nor a series of repetitions, but is rather a sequence of ascending spirals that exhibit an interplay of recurrence and innovation.[4]

If history repeats itself inexorably, there is no apparent purpose to peace negotiations or to disarmament efforts, because these efforts have failed in the past; at least, they have fallen enormously short of their goal of lasting world peace. However, if man can learn from his history, he need not remain a slave to it; he can create a new and better future. Insofar as furthering the cause of world peace is concerned, the purpose of negotiations is to help create that new and better future.

Negotiation and World Peace

Negotiation has been defined as: "discussions between parties to a conflict directed toward the arrangement of a settlement";[5] but I prefer another definition of it, one based on a thorough review of the literature concerning negotiation made by Max Ways. He defined *negotiation* as "a process in which two or more parties, who have both common interests and conflicting interests, put forth and discuss explicit proposals concerning specific terms of a possible agreement."[6] The second definition is superior because it points out that negotiation is impossible if the parties involved have no common interests whatever. Further, the definition demands that negotiation be specific—it must contain concrete policy proposals maximizing the common interests of the parties involved while minimizing or eliminating their conflicts.

"Everybody" wants world peace, of course, for to prepare for war drains a state both economically and psychologically. Yet, almost no one agrees on how to achieve the goal. Therefore, negotiations having as their stated intentions the goals of world peace or disarmament or both are worse than useless if they do not include specific policy proposals right from the start. They are worse than useless because they must inevitably fail, and their failure will cause men to believe that all such efforts are futile. Again, expectations generate behavior; if peace and negotiation are futile, then war and aggression are the only alternatives.

I contend that the history of disarmament negotiations has thus far been inconclusive[7] because no real negotiations have taken place. Effective, concrete policy proposals cannot be made uniess and until all parties to the negotiations understand each other. The Soviets have proved particularly intransigent on this score: (1) they refuse to renounce their plans for world domination; and (2) they perceive efforts at negotiation as signs of Western weakness,[8] further intensifying their belief that they can ultimately dominate the entire world militarily. Until the Soviets come to understand that a willingness to negotiate does not bespeak weakness—rather, it often reflects both great and mature strength—there seems no hope of attaining world peace through diplomatic negotiations.

IN THE long run, disarmament is vital to the cause of world peace. Without substantial weapons, there could be no threat of military action. However, disarmament would not eliminate the threat of economic violence, something for which the industrialized West is far better equipped than are the Chinese or even the Soviets. It follows that one can hardly expect the U.S.S.R. to surrender willingly the one area where it has achieved parity or possibly supremacy—the military domain. In the short run, then, disarmament does not serve the cause of world peace. The Soviets will never agree to it in any meaningful way; therefore, there are none of the necessary points that East and West must have in common. Hence, there is simply no basis for negotiations.

I suggest that meaningful negotiations looking toward world peace can take place only if and when the Soviets realize that the U.S. and its allies will meet force with force, making weapons escalation futile. At present, the Soviets have recourse other than to negotiations. The U.S. must reverse its drift toward a form of unilateral disarmament so as to give the Soviets reason to negotiate. Both sides will then be able to work toward mutual understanding. Both sides will then be able seriously to try settling their differences by means of negotiations. Then and only then will disarmament seriously be considered by either side.

Washington, D.C.

Notes

1. *Peacekeeper's Handbook*, p. 1/6.
2. *Is America Becoming Number 2? Current Trends in the U.S.-Soviet Military Balance*, p. 44.
3. Critchley, p. 117.
4. Richard Falk, "Nuclear Weapons Proliferation as a World Order Problem," in *Reader on Nonproliferation*, pp. 143-44.
5. *Peacekeeper's Handbook*, p. 1/6.
6. Max Ways, "The Virtues, Dangers, and Limits of Negotiation," *Fortune*, January 15, 1979, p. 87.
7. *Disarmament & Nuclear Tests, 1964-69*, p. 1.
8. Robert L. Arnett, "Soviet Views on Nuclear War," in *Negotiating Security: An Arms Control Reader*, pp. 115-20.

BEYOND INTEGRATION

the Air Force and racial justice

DR. PHILIP J. AVILLO, JR.

WRITTEN in the aftermath of the Vietnam War, Alan M. Osur's *Blacks in the Army Air Forces during World War II*† and Alan L. Gropman's *The Air Force Integrates, 1945-1964*,†† appear anachronistic. Implicit in both books is the assumption that black participation in the military and, more important, integration of blacks into the armed

†**Alan M. Osur, *Blacks in the Army Air Forces during World War II: The Problem of Race Relations* (Washington: Government Printing Office, 1977, $2.40), 227 pages.**

††**Alan L. Gropman, *The Air Force Integrates, 1945-1964* (Washington: Government Printing Office, 1978, $4.75), 384 pages.**

forces possess an inherent value. When the Air Force proceeded toward the accomplishment of these objectives, Osur and Gropman insist, it achieved a measure of progress and success. For example, although Osur considers it only a partial success, he nevertheless concludes that "during World War II the Army Air Forces (AAF) made some headway toward improved race relations." (p. 133) Gropman, somewhat more cautious in his judgments, reaches a similar conclusion in his companion volume. While high-ranking Air Force officials such as General Hoyt S. Vandenberg may have opposed integration in 1945, Gropman writes, once "ordered to integrate, a plan already had been prepared and the Air Force integrated with grace, speed, honesty, and success." (p. 85) In fact, Gropman adds, "Air Force integration was one of the great success stories of the civil rights movement." (p. 90)

Notwithstanding this praise, the war in Vietnam revealed that the indignities blacks had experienced previously in the Air Force persisted years after integration. Gropman himself notes that the Air Force leadership's unawareness of the problems that blacks still confronted throughout the 1960s precipitated a violent outburst at Travis Air Force Base, California, in 1971. A Department of Defense study published in 1971, which is discussed by Lawrence M. Baskir and William A. Strauss in *Chance and Circumstance: The Draft, the War, and the Vietnam Generation*,† reported that widespread frustration existed among black airmen serving in Southeast Asia, a frustration compounded by the difficulty or impossibility these blacks experienced trying to voice their problems. (p. 138) An Urban League study, which Baskir and Strauss also reported, disclosed that dishonorable discharges for black airmen numbered three and one-half times more than those which all other airmen received. (p. 139) As a result of their analysis of the relationship between the American class structure and the selective service system, Baskir and Strauss themselves discovered that Air Force deserters "tended to be black, better educated, and discouraged about the menial tasks to which they had been assigned." (p. 120)

Many of these black airmen, Baskir and Strauss added, deserted because of their opposition to the war, a war which they undoubtedly perceived as racist in nature. Other observers have reached similar conclusions about the character of the war. Historian Stephen E. Ambrose, in his *Rise to Globalism: American Foreign Policy, 1938-1976*,†† emphasized that the element of racism played a large role in the American involvement in the Vietnam War. (p. 335)

In an article that appeared in 1968, former White House staff member James C. Thomson, Jr., acknowledged that what he called "cryptoracism" dominated much of American foreign policy in Vietnam.[1] Professor Leslie Fiedler minced few words. Writing in the *Saturday Review*, he noted that when added to the estimated 1,000,000 North and South Vietnamese killed during the war, the nearly 6000 American blacks killed brought the number of non-Caucasian deaths beyond a million. ". . . the final result," Fiedler wrote, "is approximately: U.S. [Caucasian], 50,000; Them, 1,000,000. . . ."[2] The implications are obvious.

†**Lawrence M. Baskir and William A. Strauss, *Chance and Circumstance: The Draft, the War, and the Vietnam Generation* (New York: Random House, Inc., 1978, $10.00), 312 pages.**

††**Stephen E. Ambrose, *Rise to Globalism: American Foreign Policy, 1938-1976* (New York: Penguin Books, 1976, $4.95 paperback), 390 pages.**

Additional findings of Baskir and Strauss as well as Department of Defense figures lend further credibility to this conclusion. During the course of their research, for example, Baskir and Strauss discovered that "men from disadvantaged backgrounds were about twice as likely as their better-off peers to serve in the military, go to Vietnam, and see combat." (p. 9) Proportionately, more disadvantaged blacks than whites found themselves in such circumstances, and, proportionately, a larger percentage of them died as a result of hostile fire.

According to Department of Defense statistics, the percentage of black draftees serving in Southeast Asia during the war ranged from a low 10.5 percent in 1967 to a high 12.6 percent in 1969 and 1970. The percentage of blacks killed by hostile fire through the period ending June 1971 exceeded these percentages: 14.5 percent in the Army and 13.1 percent in the Marine Corps. Combined, black casualties among these two branches equaled 14 percent, a figure significantly in excess of the percentage of blacks in both these services. Stated differently, proportionately more blacks than whites served in the war zone and received assignments in combat units.[3]

That these casualty figures reflect deaths primarily in the Army and Marine Corps diminishes little, if at all, their implications for the Air Force, for just the opposite occurred in this branch. During the course of the Vietnam War, a relatively small number of black airmen were killed: nineteen enlisted or 6.9 percent of the Air Force casualties and three officers or 0.5 percent of all officers killed.[4] Figures such as these raise serious questions about the depth of the Air Force's integration. Indeed, they reveal an Air Force that seems only nominally integrated, and Gropman's own statistics testify to this. In 1970, 11.7 percent of the Air Force's enlisted men were black, but in the first five grades (E-1 to E-5) blacks constituted 12.8 percent of the total while in the upper four grades (E-6 to E-9) they held only 8 percent of the slots. (p. 226)[5] Perhaps more significantly, after twenty years of integration, only 1.7 percent of the officer corps in the Air Force was black. Officers in the Air Force, of course, constitute the bulk of the front-line combat personnel; and, ironically, in order for the Air Force to demonstrate the thoroughness of its integration, it needs to increase the percentage of black officers killed in combat situations.

GENERALLY, however, Osur and Gropman concern themselves with other matters. Osur, for example, applauded when blacks received what he euphemistically described as "the glory of shooting down . . . enemy aircraft. . . ." (p. 46) Gropman, on the other hand, measured success in terms of integration. Defined this way, the Air Force did succeed once it moved to integrate, for within three years it eliminated its segregated black units and integrated blacks throughout formerly all-white units. (pp. 120-45)

In reality, the evidence which Osur and Gropman present suggests that success by any definition proved elusive for the Air Force. As Osur himself reveals, conditions for blacks remained virtually the same at the end of World War II as they did at the beginning. Indeed, Osur's entire book demonstrates incident after incident where AAF leadership circumvented War Department orders to utilize blacks in all phases of Air Force activity, limited black participation primarily to service units, and generally proved reluctant to fulfill the spirit of military orders regarding equal opportunity for blacks. Just prior to the outbreak of World War II, for example, Congress passed Public Law 18 expanding flight training facilities and requiring that the AAF establish at least one school for the training of blacks. The AAF con-

cluded that while a school must be designated for this purpose, the law did not actually require the service to train anyone. (pp. 21-22) Five years later, AAF attitudes toward blacks remained similar. According to Osur, Major General Frank O. D. Hunter, First Air Force Commander, informed blacks in March 1944 of the 477th Medium Bombardment Group that he refused to "tolerate any mixing of the races and anyone who protests will be classed as an agitator, sought out and dealt with accordingly." (p. 59)

When Osur does report the so-called successful resolution of racial difficulties, the solution appears odd. For instance, in his chapter entitled, "An Era of Change: 1943," Osur praises General Ira C. Eaker's pointed efforts to diffuse race-related problems plaguing the Eighth Air Force in Great Britain. Over 3000 blacks in small segregated units were stationed with the Eighth and apparently scattered throughout the various units. Eaker restructured the black units, incorporating them into a single segregated unit, the Combat Support Wing. Decentralized segregation experienced a metamorphosis, reemerging as centralized segregation; and the occasion for confrontations between blacks and whites lessened. (p. 100)

While contradictions such as these characterize Osur's work, an element of ambivalence surfaces in Gropman's. On the one hand he was pleased with what he perceives to be the Air Force's positive efforts to integrate. On the other, he criticizes the Air Force for its failure to move willingly beyond the minimum requirements of integration. For instance, he notes disapprovingly that at Maxwell Air Force Base in Montgomery, Alabama, Air Force officials discouraged socializing between the races, bowing to the virulent racism of white Alabama. (p. 156) When a Mississippi court found a black Air Force lieutenant guilty of some questionable charges, Gropman laments, the Secretary of the Air Force succumbed to political pressure from a Mississippi senator and forced the lieutenant to resign. (p. 160) As recently as 1962 and 1963, Gropman writes, Air Force leadership sanctioned the continuation of segregated recreational activities, especially on southern bases. (p. 157) That the violent racial protest which erupted at Travis Air Force Base in 1971 resulted in part from the base commander's unwillingness to challenge off-base discrimination in housing testifies further both to the persistence of racial discord within the Air Force and to the substance of Gropman's complaints. (p. 215)

Despite the contradictions and ambivalence, numerous insights do emerge from both books. Blatant racism, as Osur demonstrates time and again, dominated Air Force policy toward blacks during World War II; and such racism existed at both ends of the military hierarchy. For example, when Colonel Robert R. Selway, Jr., commander of the 477th, encountered efforts to achieve some form of integration, he declared defiantly that "there will be no assimilation except over my dead body." (p. 117) Osur discovered also that a high-ranking AAF committee meeting in May 1945 argued strongly that officers' clubs should remain segregated in what it deemed the best interests of the service. (p. 120)

Gropman, too, presents considerable evidence attesting not only to the reluctance of the Air Force to confront the difficulties of black airmen but also the Air Force failure to achieve racial harmony. By 1952, the Air Force had integrated all blacks into regular units, but for the next twelve years the Air Force followed a policy that Gropman termed curiously "benign neglect." In the enlisted ranks, according to Gropman, although the number of blacks by the 1960s increased to 9.2 percent, "only .8 percent of the highest enlisted grade, Chief Master Sergeant (E-9), was black." (p. 168) When a Presidential committee under the leadership of

Gerhard A. Gesell published an initial report in June 1963 arguing that the services' responsibility to blacks extended beyond the perimeters of the base to which they were assigned. Air Force officials balked at the prospects of implementing the Gesell committee recommendations seeking to reduce off-base discrimination against blacks. (pp. 188-94)

The difficulties that blacks experienced in the Air Force are, of course, symptomatic of the larger problems they confront throughout American society. The Air Force, as Osur and Gropman stress frequently and correctly, mirrors American society; and the prejudices, bigotry, and racism that blacks encounter in the service also exist in civilian life. Were these prejudices manifested only in more dishonorable discharges, de facto segregation of military clubs, and off-base housing discrimination, black servicemen would have experienced enough injustice. Unfortunately, as already noted, during the Vietnam War these prejudices cost many blacks their lives.

This situation for blacks in the armed forces seems destined to remain static, for American society shows little inclination to change. In his recent work, *The Declining Significance of Race*, William J. Wilson reminds his readers that for the majority of American blacks, economic deprivation has resulted in the emergence of a black underclass, a group of people who exist on the periphery of American society, denied at every crossroad access to middle-class America. This continued combination of class bias and racial prejudice retards significantly the ability of most black Americans to escape the ghettoes in which they were born. They are a large percentage of America's poorly educated and less advantaged.[6]

THE Air Force, of course, as the more technically oriented service, seeks recruits from the other side of the spectrum, those who are better educated and more advantaged. Due to the basic infantry missions of both the Army and the Marine Corps, educational levels obviously play a smaller role in recruiting. Not surprisingly, more highly educated, better advantaged persons qualify for Air Force openings; and the less advantaged, poorly educated, of whom a large percentage are black, enter readily into the Army and Marine Corps. It is they who in a wartime situation will again find themselves in front-line units.

When Gropman concludes, therefore, that as long as the Air Force diligently pursues racial justice within its ranks it "can expect to continue to enjoy the relative racial peace it has experienced," (p. 220) he not only ignores much of the record he has presented but also underestimates the extent to which blacks continue to be victimized in American society. Successful integration of all the services will occur only when blacks and whites risk shedding proportionately an equal amount of blood. That in 1978 blacks constituted over 29 percent of the enlisted ranks in the Army, 19 percent in the Marine Corps, and only 3.6 percent of the officers in the Air Force suggests that the Air Force as well as America's other armed forces must intensify their efforts to achieve racial justice.

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Notes

1. James C. Thomson, Jr., "How Could Vietnam Happen? An Autopsy," *Atlantic Monthly*, April 1968, pp. 47-53.
2. Leslie Fiedler, "The Cost in Human Lives: Who Really Died in Vietnam?" *Saturday Review*, December 1972, p. 42.
3. Department of Defense, *The Negro in the Armed Forces: A Statistical Fact Book* (Washington: Government Printing Office, 1973), pp. 4-6, 230-31.
4. Ibid., p. 231.
5. Percentages were extrapolated from Gropman's figures.
6. William J. Wilson, *The Declining Significance of Race: Blacks and Changing American Institutions* (Chicago: The University of Chicago Press, 1978).

Potpourri

Leadership by James MacGregor Burns. New York: Harper and Row, 1978. 532 pages, $15.00.

Recognizing that "the call for leadership is one of the keynotes of our time," Pulitzer Prize-winning author James MacGregor Burns sees the problem as partly conceptual. We have "no school of leadership, intellectual or practical." Lacking standards, we have not made intellectual distinctions between the moral leader and the leader as power wielder. One inspirational, the other exploitative, Burns calls the two types *transforming*, which stimulates higher levels of motivation, and *transactional*, which trades votes for power, money for prestige.

Burns recognizes that leadership is different from management, and he has impeccable qualifications to develop the distinction. His award-winning studies on Congress, the Presidency, and the American political system make the present study enormously important. Yet his most limited perspective is its application to the military. A wealth of heroic examples emerges; none is a military leader. In fact, there is no reference to a military officer or the profession—hardly what we would expect of a former Army historian writing on leadership.

The book is heavy going, even for the expert with time on his hands.

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The Battles for Cassino by E. D. Smith. New York: Charles Scribner's Sons, 1975. 192 pages, $8.95.

Perhaps the sternest test of any friendship is the acceptance of criticism from those whom we hold in high esteem. In this case, one of our British allies, Brigadier E. D. Smith, takes us to task regarding the seemingly endless controversy over the Italian campaign and the Battle of Cassino. While the author may feel that he has rendered an impartial account, his work seems to take a very British approach. For those Yankee cousins of the brigadier who have thin skins, this book might seem a bit harsh. However, the avid student of military history has here yet another piece to add to the Cassino puzzle.

Few realized that the fight for Cassino would be long, difficult, and bloody. Smith accounts for two facets of the battle, strategy and tactics. On the tactical level, he examines the Cassino battle with all the expertise one expects a brigadier to muster. From the standpoint of strategy, the political and military implications are discussed as viewed from the highest levels. It is in the strategic facet that our ally stirs up the proverbial hornet's nest.

While entertaining and thought-provoking, this book does not meet the requirements of a thorough, scholarly work. Specific quotations and facts are not documented (although the brigadier does place quotation marks around quoted materials, he does not cite specific sources). Accordingly, it will also be difficult for many of us to accept his views in their entirety.

As evidenced by Smith's book, the controversy over the Italian campaign is still alive, and the Battle of Cassino will remain as controversial as the destruction of the monastery itself. However, the brigadier has added another piece to the Italian puzzle; it is up to us to decide how well it fits with the rest of the puzzle as we put it together.

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German Aircraft of the Second World War by J. R. Smith and Antony J. Kay, with drawings by E. J. Creek. London: Putnam & Co., 1978, 745 pages, 2 appendixes, index, $28.95.

Air power cannot be understood without appreciating the tactical capabilities and limitations of the weapons of aerospace and without understanding the technical problems involved in developing them. The rise and fall of the Luftwaffe is instructive on all these scores. Few military forces have risen to such heights of technical sophistication and tactical effectiveness in so short a time—or subsequently fallen so far so rapidly.

This compact volume does much to explain how and why, though an important part of the story is given by indirection: The incredible profusion of aircraft and missile projects, many of them technically highly advanced, which taxed Nazi Germany's resources of engineering talent, dispersed and diverted its productive capacities, and drained its treasury, is laid out in often bizarre detail. Though the net effect of this profusion is not explicitly discussed, individual projects are competently dealt with.

The core of the book consists of brief histories of all German aircraft used or built during World War II. These accounts vary in length according to the importance of the aircraft in question—the Bf-109 is allotted 23 pages and 25 photographs—and are concise and remarkably complete in technical detail. The unscaled three-view drawings are crisp and apparently accurate.

Of particular note are separate sections dealing with helicopters, missiles, and proposed and unfinished aircraft projects. I know of no other source offering comparable treatment of any of these areas, the comprehensive coverage of missile and guided weapons projects being particularly valuable.

The book is not without flaws. One of these is the somewhat arbitrary assignment of three-view drawings. There is no three-view of any of the later versions of the Bf-109—numerically the most important German fighter of the war—yet the obscure Horten flying wing projects, a single entry, are illustrated by no less than seven drawings. Details of operational service often sound more comprehensive than they are, particularly for the more important aircraft.

These problems, however, are minor. This is the best single volume of its kind and, despite the high price, represents good value for those with a serious interest in the subject.

J. F. G.

Franklin D. Roosevelt and American Foreign Policy, 1932-1945 by Robert Dallek. New York: Oxford University Press, 1979. 657 pages, $19.95.

Ten thousand copies sold in three months.

Such immediate and widespread public acceptance of a scholarly book is, indeed, unusual, but here it is richly deserved. Author Robert Dallek, professor of history at the University of California at Los Angeles gives us a highly readable and richly documented (90 pages of footnotes) history of United States foreign policy from 1932 until Franklin D. Roosevelt's death in 1945.

FDR gets high marks for his direction of wartime strategy. Dallek affirms that FDR was principal architect of the basic strategic decisions for prosecution of the war against Japan and Germany and that FDR did not hesitate to override or ignore the advice of his own military chiefs when he thought it necessary.

Distrustful of the State Department, FDR kept control of major foreign policy issues by acting as "a court of last resort," "pitting Wells against Hull, political envoys against career diplomats, Stimson against Morgenthau, and a host of personal representatives against each other for influence over foreign policy."

Asserting that no part of FDR's foreign policy has been less clearly understood than his wartime diplomacy, Dallek writes that FDR was neither naïve nor unrealistic about the Russians. FDR simply accepted the reality that postwar stability demanded a Soviet-American accord and that Soviet power would extend into Eastern Europe and parts of East Asia. Nor does the author accept the contention that FDR was "sentimental and shallow or unrealistic" about China. Rather, he had a good grasp of Chinese realities balanced by a sound appreciation of his limited power to influence events there.

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Memoirs: Jean Monnet by Jean Monnet, translated by Richard Mayne. New York: Doubleday, Inc., 1978. 544 pages, $12.95.

The world will never know whether a European Economic Community would have come into existence without the work of Jean Monnet, but in any event, it would not have been the same. Many great leaders have made their impact on twentieth century European history, but few have had the positive impact of Monsieur Monnet. His role in Europe is reminiscent of James Madison's role as the Father of the United States Constitution. Monnet wrote Europe's "Virginia Plan" and, like Madison, worked closely with almost every major political figure of his age: Roosevelt, Eisenhower and Harriman, Churchill, Heath, MacMillan, de Gaulle, Schumann, Daladier, Adenauer, Erhard, Brandt, and Schmidt, to mention only a few. He had surprisingly few enemies and usually managed to express positive opinions even of those who opposed him. He either acknowledged the reasons for their views or credited them with broad intelligence, even if they did not share his vision of a united Europe.

Ideologically, Monnet's greatest opponent was probably Charles de Gaulle, whose ideas of nationalism thwarted all progress toward European unity for some ten years, but the Europeanists have once again begun to take the initiative. The directly elected European parliament and the new European monetary system are evidence of the steady, evolutionary march toward unity. Monnet's foresight is exemplified in his remark: "I have never believed that one fine day Europe would be created by some great political mutation. . . ." (p. 367) In Monnet's view, it had to be a slow process.

In concluding the original draft of the European Coal and Steel Agreement, he wrote, "The proposal has an essential political objective: to make a breach in the ramparts of national sovereignty which will be narrow enough to secure consent, but deep enough to open the way towards the unity that is essential to peace." (p. 296) The politicians later edited these

words out of the text, but they embody an essential theme of Monnet's life work. His service with the League of Nations and other international bodies convinced him that meaningful unity could not be achieved through institutions based on mere cooperation or association; some elements of national sovereignty would have to go.

The book has major historical and biographical value simply because it contains interesting and authoritative insights into the lives of so many great men. Anyone who aspires to understand modern Europe should read it.

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The Myth of Victory: What Is Victory in War? by Richard Hobbs. Boulder, Colorado: Westview Press, Inc., 1979, 565 pages, $25.00.

In this work, Richard Hobbs explores a new perspective on warfare as a means to political conquest. According to the author, military victory is empty unless it is supported emotionally and spiritually by the victorious population. Military victory acquires meaning only within its political, economic, and psychological contexts. Unless, therefore, military planners accord these contexts their proper weight, national military power is likely to fall short of its full potential.

Hobbs pursues his thesis through 16 chapters, analyzing the wars of the twentieth century. *The Myth of Victory* is a thoughtful, in-depth study of total war, unconditional surrender, victory in the nuclear age, and victorious war as a political solution. Throughout, Hobbs contends that "the victory gained from pushing war to its upper limits is illusory and not commensurate with the terrible cost." (p. xv)

Hobbs marshals an impressive volume of evidence to support his conclusions that the concept of total war which prevailed in the past is no longer applicable in the nuclear age and that "victory, however defined, is not an end in itself, but simply a means to other ends of policy." (p. 510) According to the author, even the Communist powers now think of victory not in purely military terms but more in terms of a social disruption weakening the social fabric of the Western nations.

The Myth of Victory is a scholarly work, documented with 1425 reference notes from innumerable sources. Yet, one must ask: What does the book prove that we haven't known all along?

Captain Steven E. Cady, USAF
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Linebacker II: A View from the Rock by Brigadier General James R. McCarthy and Lieutenant Colonel George B. Allison, USAF Southeast Asia Monograph Series, Vol. VI, Monograph 8, Airpower Research Institute, 208 pages.

Any review of strategy or tactics should include a sociological element: What personal or organizational characteristics affected the genesis and acceptance of new plans? These considerations can be every bit as important as the plan's technical merits.

Linebacker II, the December 1972 blitz of the North Vietnamese heartland, was a classic case of a modern military organization's need to alter its plans. There are lessons to be learned from that spasm of activity when so many people worked so hard in that initial use of heavy jet bombers against the war-making capacity of a nation.

We are already familiar with the dimensions of Linebacker II. The well-publicized statistics, numbers of sorties flown and tons of bombs dropped, for example, convey the immensity of the operation. The authors do not spare us those details. But we need more than bare facts if we are to learn from the decisions made during those 11 fateful days in 1972. We need on-the-scene, personal accounts of the personal and organizational responses to the demands of unfolding events.

What were those events? Briefly, B-52 losses during the first days of Linebacker II caused much criticism of the uninspired tactics Strategic Air Command used in attacking Hanoi. The critics claimed that the B-52s were sitting ducks because, in approaching their targets, they all flew exactly the same routes. Once the first B-52s flew by, surface-to-air missile (SAM) crews knew just where to direct their attention and missiles to get good shots at the many bombers following. To be useful, a commentary should focus on the decisions first to keep and then to change those tactics.

Linebacker II: A View from the Rock is a start in the right direction. Though not unflawed, it does enable the reader to gain valuable insight into why and how decisions were made. Armed with that insight, a reader can judge for himself the complicated decision-making process Linebacker II planners had to follow. The authors, who were on the scene—one as a wing commander, the other a B-52 radar navigator—persuasively argue that there was no real time delay in devising and applying new tactics, and the fastest possible response was provided. To their credit, the authors provide enough of the opposing argument for critical readers to decide for themselves.

The authors have also made excellent use of firsthand experience to provide a true-to-life version unmatched in previous accounts. Aircrews were not

alone in being troubled by ambivalence. In five pages, the authors summarize the almost crushing weight of the factors the SAC staff had to cope with when deciding if the missions should be continued in the face of costly losses of aircraft and crews. This section of the narrative (pp. 85-89) is a must for anyone even remotely interested in air power. Why? Because here we find decision-makers so troubled by losses that it seemed to them that events were refuting air power doctrine! (Perhaps strategic bombardment would not work against targets surrounded by modern defenses!) Though the validity of air power doctrine is not at issue here, the authors have provided a thought-provoking insight into its complexities.

Any reader will gain an appreciation for the tremendous support, logistics, and coordination required for large-scale use of strategic air power. The authors have served us well in assembling and giving form to such a mass of useful information. The uninitiated reader must be wary, though, of the authors' sometimes sanguine descriptions of how readily some support problems were solved. They were certainly seeking to portray the heroic efforts of thousands of support people and aircrew members whose herculean efforts are not in doubt. But good people can be hampered by factors beyond their control. This is another reason why *Linebacker II* is must reading for students of air power: the support problems of Linebacker II were solved for the time being, but unless we want our air power similarly constrained in the future, we must deal with the problems as they actually occurred. This monograph helps meet that need.

On another note, the United States Air Force Southeast Asia Monograph Series has taken a step forward in making this the first in the series to be thoroughly footnoted and referenced—a great aid in furthering research and following the authors' line of reasoning.

Linebacker II: A View from the Rock should find a wide audience, not only among those interested in strategic air power but also with those to whom understanding modern warfare is precursor to fighting or deterring it.

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The Biology of Peace and War by Irenäus Eibl-Eibesfeldt. New York: Viking Press, 1979, $15.00.

Irenäus Eibl-Eibesfeldt's *The Biology of Peace and War* is a thoroughly scholarly work advancing the thesis that war fulfills important functions: it helps nations compete for the wealth essential to life, including land, mineral resources, and the labor of conquered peoples; it helps keep population growth in check; and it stimulates the cultural and technical development without which the human race would degenerate.

Since these and other functions are important or even essential, the human race can dispense with war only if ways can be found of performing the functions of war without bloodshed. Accordingly, the search for peace is a search for such alternatives.

Along with this thesis, the author espouses another one of purely intellectual interest: man's biological inheritance forbids him to kill other members of his species, but his evolution into a civilized being has resulted in a "cultural pseudospeciation," superimposing the command that he kill members of other human groups.

Eibl-Eibesfeldt, a professor of zoology at the University of Munich, supports these and related conclusions with a volume of carefully documented materials drawn from zoology, anthropology, sociology, psychology, and ethology (the study of the formation of human character).

The Biology of Peace and War is another of the increasingly numerous works in the realm of the social sciences which labor to prove what most intelligent individuals have known for a long time. That war is armed conflict between groups, for example, may seem like a profound insight to the author but hardly to anyone else.

Captain Steven E. Cady, USAF
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International Relations: A Policymaker Focus by Robert L. Wendzel, second edition. New York: John Wiley and Sons, 1980, 266 pages, $8.95.

Master of Sea Power: A Biography of Fleet Admiral Ernest J. King by Thomas B. Buell. Boston: Little Brown and Co., 1980, 609 pages, $22.50.

The war-college or command-and-staff-level student who wishes to broaden his understanding of international relations, especially one anticipating duty in a policymaking role, will find in Robert Wendzel's *International Relations* a fine self-educator. Designed as a first course in international affairs, one finds none of the hurdles of stilted technical jargon and abstruse model building so beloved by political scientists. Wendzel first analyzes the international environment in which the policymaker works, then policymaking itself—the instruments, elements, constraints, and difficulties. Principles and conclusions are clarified by carefully chosen examples both recent and remote

The writing style is clear and uncluttered, the student or general reader will find it interesting and rewarding.

Having completed his basic studies in strategy and policymaking, the student is now ready for a special treat. Highly recommended as history, biography, and study of leadership is *Master of Sea Power: A Biography of Fleet Admiral Ernest J. King*. Admiral King was known throughout the Navy as a taskmaster; General Eisenhower referred to him in his diary as "an arbitrary, stubborn type with too much brains and a tendency toward bullying his juniors . . . the antithesis of cooperation, but he wants to fight."

Military officers set various goals for themselves in their careers. A few follow the Sun Belt, enjoy the life, and anticipate a good retirement. Others pay their dues in the Pentagon as the price of winning a star; only rarely a "carefully calculating careerist" comes by who sets his goal early to become chief of service and shapes all duties, even his personality, to no other end. Such a man was Ernie King who drove himself, his family, and maneuvered even his choice of admirals under whom he would serve, toward one goal, the Chief of Naval Operations.

King had a remarkable career. As a midshipman, he saw combat in the Spanish-American War. His early years were an adventure story of a hell raiser who took seriously the old wisdom that "who loves not wine, women and song remains a fool his whole life long." King was no fool. He served in all types of ships, qualified in submarines and naval aviation, was decorated for salvage operations on two sunken submarines, taught at the Naval Academy, and headed the Navy's professional military education program. An aviation pioneer, he flew patrol planes, commanded the U.S.S. *Lexington*, one of our first aircraft carriers, and was Chief of the Bureau of Aeronautics. But in 1939 he failed selection as Chief of Naval Operations and was given the usual "twilight tour."

When Pearl Harbor turned twilight into dawn of a new era, King was the obvious choice as Commander in Chief, U.S. Fleet and Chief of Naval Operations. This stern unforgiving martinet at age 60 finally reached the goal to which he had dedicated his life—"the most powerful naval officer in the world." Buell's analysis of King's World War II role—advising President Roosevelt at the major conferences, battling General Marshall and Secretary Forrestal on the direction of the war, the fierce discussions with the British on grand strategy—make an invaluable contribution to the history of the war. The military history buff, student of strategy, and general reader will find much of value in the study of this great American.

Dr. Paul R. Schratz
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Water's Edge: Domestic Politics and the Making of American Foreign Policy by Paula Stern. Westport, Connecticut: Greenwood Press, 1979. xix + 265 pages, $19.95.

The more events appear different, the more they are actually the same. Although neither its purpose nor theme, *Water's Edge* strengthened this reviewer's opinion that given a situation that requires a "Washington solution," the procedures for arriving at this solution are strikingly similar. Paula Stern's theme is that domestic policy neither ends nor has its beginnings at the water's edge of the United States. Drawing on her experience as staff aide to a United States senator during the period and using the Jackson Amendment to the Trade Reform Act of 1974 as the subject, the author demonstrates vividly the impact of U.S. domestic politics on the formulation of foreign policy—an impact intensified at the time by the Watergate scandal.

Stern traces the comprehensive trade agreement, initialed by the United States and the Soviet Union on 18 October 1972, through the congressional approval process. In this agreement the United States consented to seek congressional approval for granting the Soviet Union most favored nation treatment in exchange for an agreement by the Soviets to pay $722 million on their World War II lend-lease debt. Even prior to this understanding, some congressmen and organizations had criticized the emigration policies of the Soviet Union, particularly as it applied to the more educated Jews. During the summer of 1972, Senator Henry Jackson of Washington drafted legislation to link emigration to trade. The subsequent education tax imposed by the Soviets on those individuals wishing to leave and the submission of the trade reform act to the Congress provided the necessary emotional climate for widespread sympathy and the appropriate vehicle on which to attach Jackson's legislative initiative, the Jackson Amendment.

Although emigration restriction was not yet a widespread public issue, Senator Jackson anticipated that the Soviet Jewry problem would be appealing to many even before the Jewish organizations or others realized its possible impact. His legislation was ready, and he arranged to have it attached to the Trade Reform Act while it was being debated in the House. Neither the administration nor the Soviet Union was impressed with the seriousness of the threat of the amendment to the U.S./U.S.S.R. trade agreement at this time, and they appeared to miss opportunities to soften its provisions on several occasions. Senator Jackson and his staff controlled the effort to link human rights with trade legislation and, until he was successful in having the amendment passed by the House, Jackson showed no inclination to compromise

on any of its provisions. The methods he and his staff used in keeping individuals and organizations behind the amendment are graphic portrayals of master politicians at work. They also illustrate the importance of timing and the vulnerability of elected officials—much more so than bureaucrats—to constituent pressures. As other key congressmen approached elections, Jackson's men made effective use of constituent pressure to keep them in line.

With the amendment passed by the House, Jackson appeared more ready to compromise. He apparently believed he was now dealing from a position of strength. Three-way negotiations followed between the Executive Branch, primarily Henry Kissinger; the Congressional Branch, primarily Henry Jackson; and representatives of the Soviet Union. During these negotiations Senator Jackson lost some of the absolute control he possessed while the process was totally in the Congressional arena, but he certainly remained a dominant participant.

Amazing progress was made to soften the Soviet line with regard to restrictions on emigration during these and prior quiet negotiations. However, the need for Senator Jackson to satisfy domestic political requirements by publicly taking credit for Soviet concessions was perceived by the Soviet Union as an attempt at humiliation. From this time forward the game appeared to be played without the Soviets. Additionally, Soviet emigration restrictions were toughened, undoing the gains that were the very purpose of the Jackson Amendment.

After reviewing Paula Stern's account of the intrigue behind the Jackson Amendment debate, one can easily imagine the politics that have gone into the "Washington solution" of some of our more recent issues. For example, envision the Executive/Congressional/Soviet interplay in the SALT II ratification process, particularly when a Soviet combat brigade was discovered in Cuba. The Dear Colleague letters, trilateral negotiations, and constituency pressures must have been overwhelming. Paula Stern's book definitely gives one an appreciation for the political actions behind the stories that appear in the press.

Water's Edge is useful reading, particularly for those headed for a Washington assignment or those with an acute interest in the "Washington process," but the price seems a bit high.

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Nice Guys Finish First by Jard DeVille. New York: William Morrow & Company, 1979, 216 pages, $7.95.

Another self-help book that is somewhat different. Jard DeVille is subtle yet incisive in suggesting ways to thank, urge, condemn, and challenge people. The secret comes in "golden rule" psychology, i.e., seriously considering the other guy's feelings and then learning behavior to avoid confrontations.

We all fall, says DeVille, into one of four personality patterns—supporter, controller, comprehender, and entertainer. A supporter combines expression with inquiry and appears to care deeply about everyone he meets. The controller is most at home using emotional self-control and directing people in their actions. The entertainer is direct, expressing feelings openly and frequently. A comprehender combines cooperation and self-control. Once you understand the patterns, DeVille suggests a survey among friends, family, and associates to find which pattern fits you. The second step is to identify patterns around you.

DeVille is interesting. His book is especially useful if one is radically changing work environments, e.g., from the flight line to a large plans office or from a maintenance depot to a school environment.

T. M. K.

The Air University Review Awards Committee has selected "A New Model for Land Warfare: The Firepower Dominance Concept" by Lieutenant Colonel Robert S. Fairweather, Jr., USA, as the outstanding article in November-December 1980 issue of the *Review*.

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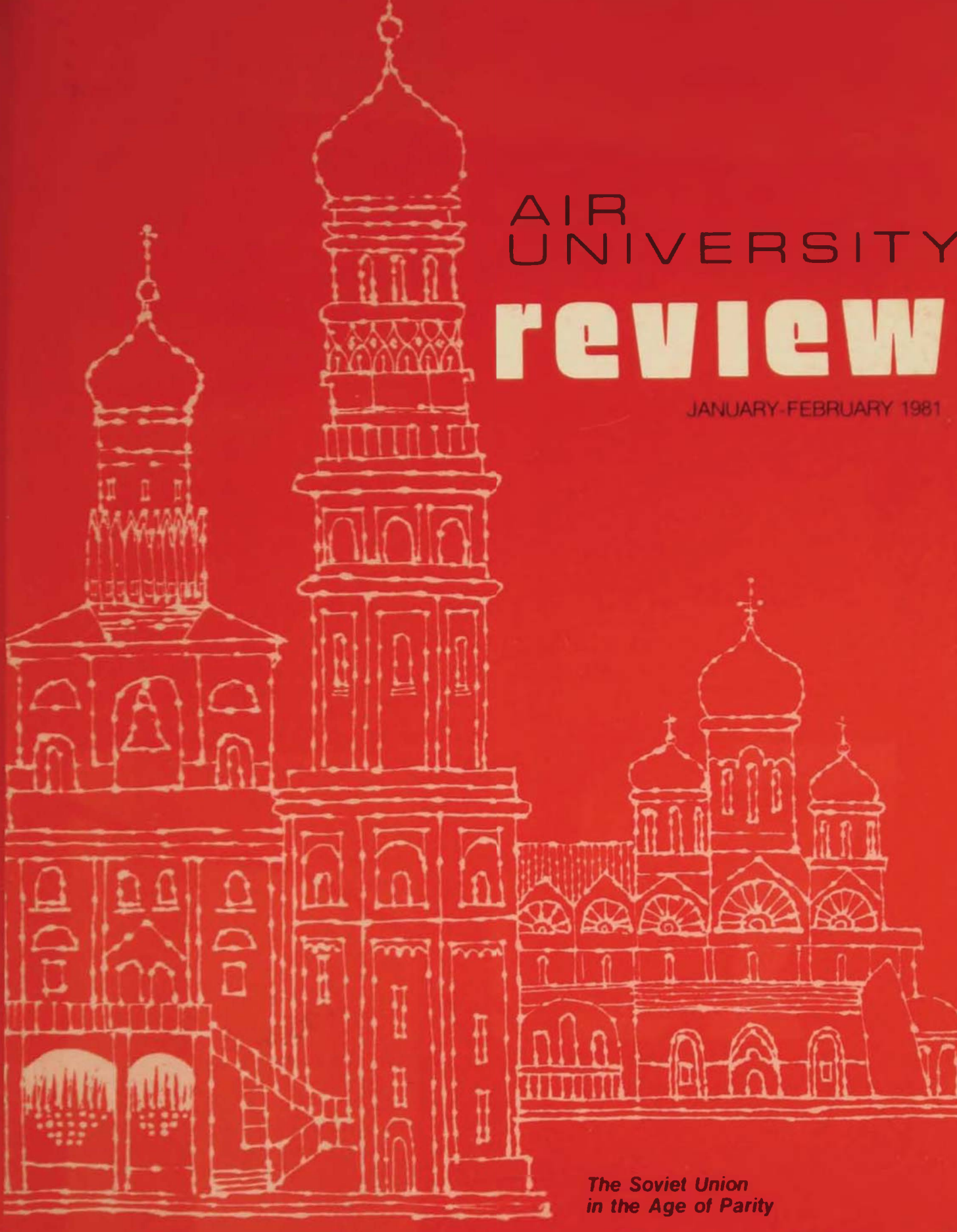
attention

The *Air University Review* is the professional journal of the United States Air Force and serves as an open forum for exploratory discussion. Its purpose is to present innovative thinking concerning Air Force doctrine, strategy, tactics, and related national defense matters. The *Review* should not be construed as representing policies of the Department of Defense, the Air Force, Air Training Command, or Air University. Rather, the contents reflect the authors' ideas and do not necessarily bear official sanction. Thoughtful and informed contributions are always welcomed.

Address manuscripts to Editor, *Air University Review*, Bldg. 1211, Maxwell AFB, AL 36112. *Review* telephone listings are AUTOVON 875-2773 and commercial 205-293-2773. Printed by Government Printing Office. Address subscriptions to Superintendent of Documents, GPO, Washington DC 20402; yearly $13.00 domestic, $16.25 foreign; single copy $2.25 domestic, $2.85 foreign. Air Force Recurring Publication 50-2. Authority to publish this periodical automatically expires on 30 January 1982 unless its continuance is authorized by the approving authority prior to that date. Distribution: reader-per-copy ratio is one to every ten USAF personnel, military or civilian.

The Professional Journal of the United States Air Force



AIR UNIVERSITY review

JANUARY-FEBRUARY 1981

The Soviet Union in the Age of Parity