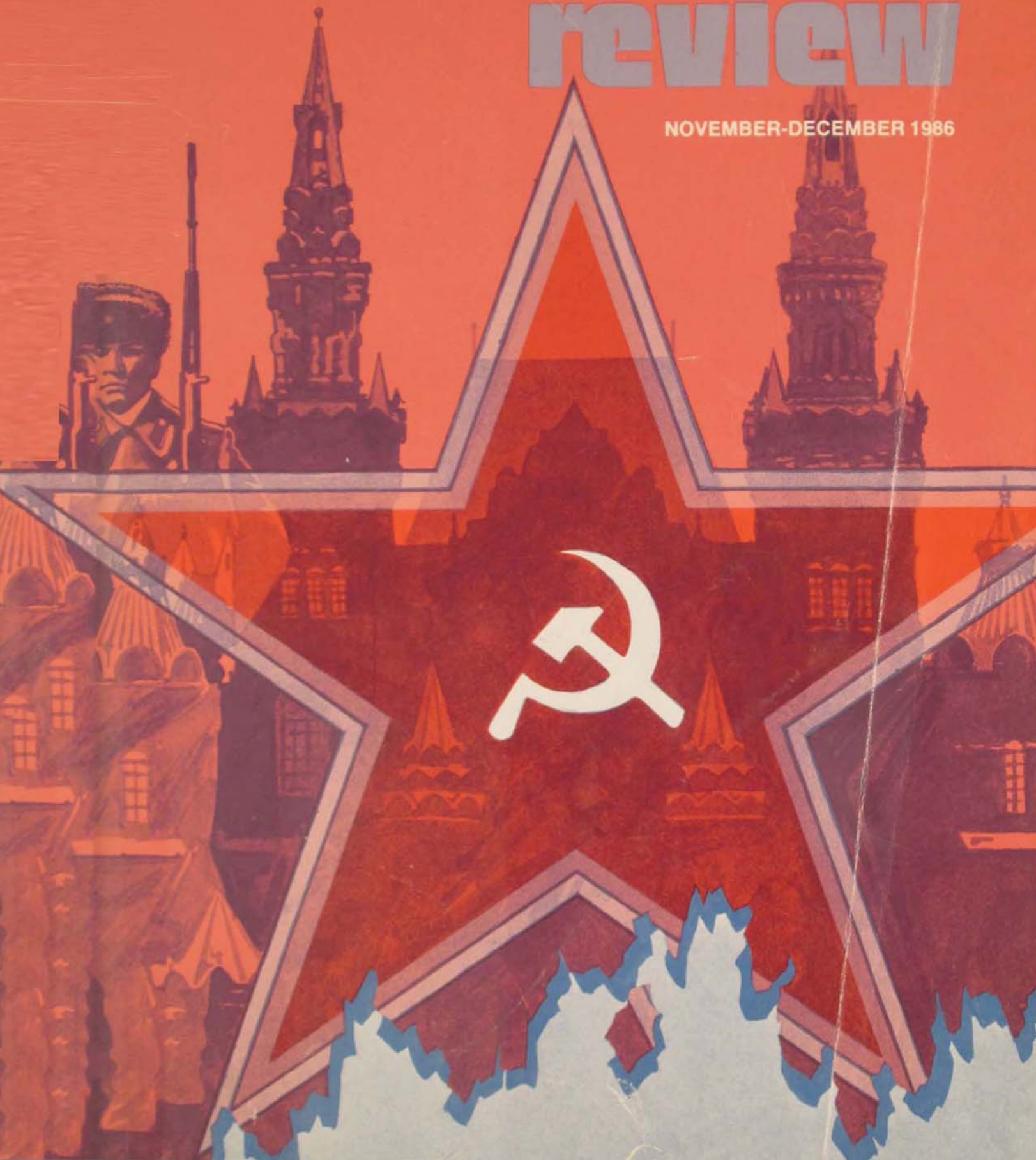


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The Soviet Union faces a range of social, economic, and political problems in the years ahead—*page 2*



Reflections on KAL 007—*page 29*



The Soviet Union's Special Purpose Forces—*page 63*

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AIR
UNIVERSITY
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November-December 1986 Vol. XXXVIII No. 1 AFR 50-2

- 2 **The Soviet Union: Crisis, Stability, or Renewal?**
Dr. Ralph S. Clem
- 14 **Know History . . . or Become History**
Editorial
- 16 **Education and Training of Soviet Air Forces Officers**
Dr. William F. Scott
Harriet Fast Scott
- 29 **Soviet Concepts of Security: Reflections on KAL Flight 007**
Dr. David R. Jones
- 40 **Launch on Warning in Soviet Nuclear Strategy**
Capt. John D. Williams, USMC
- 52 **The Strategy of the Indirect Approach Applied to NATO**
Lt. Col. William J. Dalecky, USAF
- 63 **SPETSNAZ: Soviet Innovation in Special Forces**
Robert S. Boyd
- 70 **Ira C. Eaker Essay Competition Winners**
- In My Opinion**
- 72 **The Human Factor: The United States versus the Soviet
Fighter Pilot**
Col. Mike Press, USAF
- The Classic Approach**
- 79 **Train Hard, Fight Easy: The Legacy of A. V. Suvorov
and His "Art of Victory"**
Dr. Bruce W. Menning
- 89 **You've Got the Stick/Letters**
- Books, Images, and Ideas**
- 93 **From Stalingrad to Berlin: Stalin's War**
Dr. John T. Greenwood
- 98 **Short Bursts**
- 103 **Contributors**

THE SOVIET UNION: CRISIS, STABILITY, OR RENEWAL?

DR. RALPH S. CLEM



IN the title of his provocative book, *Will the Soviet Union Survive until 1984?* the late Soviet dissident Andrei Amalrik posed specifically a question about the longevity of the Soviet Union, a subject that has intrigued Western analysts of that country for some time, and about which there has recently been considerable speculation.¹ Reflecting for a moment on the fact that the answer to Amalrik's query is now clear in the affirmative, it is still the case that many take seriously the notion that the Soviet Union is in distress and might even collapse under the weight of internal economic, social, and political problems. Given the adversarial relationship between the superpowers, it is probably natural that this issue will be raised again by others in updated form, and that in most cases the responses will to some degree be biased by the ideological climate of the times and the personal views of those involved. After all, if one perceives the Soviet Union as a military and political threat to the Western democracies, then there is considerable appeal in the idea that our chief rival in the international arena might vanish of its own accord, or at least become less menacing.

The issue of the condition of the Soviet system is not entirely an academic one. The strength of the modern state is no longer a function solely of military power, especially now that the awesome destructiveness of that power places strong constraints on its use and that unconventional forms of warfare (i.e., guerrilla war and terrorism) have proliferated. Thus, the long-term influence of the Soviet Union in international affairs, like that of other countries, will be determined to a large extent by the cohesiveness of its society and the vitality of its economy, not only for the value that these factors might have in the competition between ideologies but also because social and economic forces directly and indirectly shape military capabilities and nonmilitary options. Recognizing this, Richard Pipes and others have suggested that American policy

toward the Soviet Union should be more assertive, taking into account weaknesses in the Soviet economy and society.²

The only problem with this notion—and it is a potentially dangerous problem—is that it is based on a false premise and a questionable corollary: it is certainly wrong to view the Soviet Union as beset with crises of such magnitude that its very existence is in doubt and probably wrong to think that the problems confronting that country will in some way make it more susceptible to direct, unfriendly pressure from the United States. This is not to suggest that the Soviet Union is without its difficulties, or that these difficulties do not present a serious challenge to the Soviet political leadership. On the contrary, that same leadership has itself taken an increasingly more candid and concerned view of the economic and social situation in the Soviet Union and calls for various reforms intended to correct or at least to ameliorate some of these problems have received wide attention in the Soviet and Western press. Likewise, the present circumstance and near-term future do offer certain opportunities for an enhancement of American national interests vis-à-vis the Soviet Union, provided that our initiatives are well grounded in the facts of the matter and are pursued in a fashion calculated to avoid overt confrontation or outright hostility.

With the seriousness of these issues in mind, it does seem that the immediate past few years and the coming decade constitute an especially important transitional period for the Soviet Union and therefore demands some assessment and guarded forecasts from those trained to evaluate the Soviet condition. At this writing, we are at an excellent vantage point from which to take stock of Soviet prospects and their implications. A relatively young leader has recently acceded to power, the economy is entering a new Five-Year Plan (the Twelfth, 1986-90), and the XXVII Party Congress (a major political event held every five years) has just concluded.

However, reasonable people will disagree about the dimensions and interpretations of recent events and trends in, and particularly the direction of, the Soviet economy, society, and political order during the near term. Accordingly, my discussion here will focus on several key issues in terms of possibilities. However, definitive statements about these questions and particularly their future course are simply not feasible or prudent.

The Soviet Economy: Problems and Prospects

There can be little doubt that Soviet economic performance has experienced a downturn of serious proportions during the past three decades, a condition that has worsened within the last ten years. This trend is evidenced in the steady drop in the average annual growth rate of the Soviet gross national product (GNP) from 5.9 percent for the period 1956-60 to 5.0 percent for 1961-65, 5.2 percent for 1966-70, 3.7 percent for 1971-75, and 2.7 percent for 1976-80.³ Although still respectable by international standards (the U.S. GNP grew at an average rate of 3.1 percent between 1975 and 1980), these figures are in dramatic contrast to Soviet economic growth rates of from 6 to 11 percent a year in the era prior to and immediately after the Second World War.

Specialists on the Soviet economy by and large concur on the causes for this secular decline in growth rates. In general, the economic development strategy adopted by the Soviet leadership (the "Stalinist" model) in the late 1920s—which was to prove successful in implementing and sustaining very high rates of increase for about thirty years—is no longer appropriate. The classic Stalinist model, featuring a centrally planned and tightly controlled system, was able to achieve impressive economic results by mobilizing cheap labor and abundant natural resources, by mandating a high level of investment, and by devoting a large share of capital to producer goods indus-

tries (e.g., iron and steel and machine building).

Now, however, the Stalinist model is experiencing difficulties principally because the Soviet economy has moved into an era where consumer goods and agriculture are given higher priority, which means that productivity counts for more than brute size; quality (or efficiency) has superseded quantity as the prime determinant of growth. James Millar has aptly described this structural shift in the Soviet economy as requiring "... changes in the leadership's long-standing preference for industry over agriculture, for the urban worker over the rural—for, in short, the hammer over the sickle."⁴

More specifically, Soviet planning and controlling agencies are no longer able to handle the tasks associated with a much larger and complex economy; thus, output targets are often irrational and measures of production are inaccurate. Prices are difficult to establish; they are unrealistic and rarely adjusted, which frequently makes the allocation of resources perverse. Perhaps most important, the technological changes required to raise productivity seem very difficult for the Soviet system to generate internally. Some reasons for this difficulty are:

- There is the lack of innovation in Soviet enterprises because managers are reluctant to take risks for fear of failing to satisfy short-term production quotas.
- Research and development usually takes place independent of the factories, so technological advances are difficult to integrate into the production process.
- The lack of competition among producers and a chronic shortage of consumer goods (which perpetuates a seller's market and reduces workers' incentive) further inhibit innovation.

All of these reasons have led to a steady deterioration of both capital and labor productivity.⁵

If there is general consensus on the dimensions of and reasons for the current Soviet economic malaise, the course of events during the

coming years will be much more controversial. We do know with some certainty that future Soviet economic growth will be constrained by several factors. First, because of a long-term drop in the birthrate, the number of new entrants into the work force will shrink through the mid-1990s, which means that the profligate use of labor which Soviet economic planners have taken advantage of in the past will no longer be possible; there are no large reserves of labor remaining, as the rural population has been drained of surplus workers, and women are already employed to the maximum. Aggravating this problem are pronounced interregional differentials in the birthrate, which have created labor surpluses in the Asian areas and labor deficits in the European U.S.S.R.⁶

Second, inputs of industrial raw materials have become increasingly expensive as more favorably located deposits are depleted and production shifts to remote and costly sources.⁷ Third, the perennial problems of agriculture will no doubt continue; plagued by a poor environmental base for farming, the Soviets compound this shortcoming by grossly mismanaging agriculture. This problem has an especially deleterious impact on the overall Soviet economy, inasmuch as agriculture accounts for about 20 percent of GNP (as compared to less than 3 percent in the United States). Historically, the agricultural sector has not received adequate investment (capital went primarily to industry), although recently this imbalance has been largely corrected. Shortfalls in agricultural production force the Soviet Union into the world market to purchase grain and other commodities, using about 40 percent of precious hard currency funds to maintain an adequate diet for the Soviet citizen.⁸

By far the most important constraint on economic prospects for the U.S.S.R. is military spending, which is the subject of lively debate in the field of Soviet studies in the West. Because the Soviet government does not provide complete details of its defense budget, there is considerable disagreement regarding various

estimates of Soviet military expenditures derived by different methods. Thus, it may be that the Soviet military budget absorbs anywhere from 10 to 18 percent of GNP.⁹ Regardless of what constitutes the "true" figure, the important point is that with an economy only approximately 60 percent of that of the United States (which spends between 6 and 7 percent of its GNP on defense), the economic burden of maintaining a military establishment of roughly comparable size weighs much more heavily on the Soviet Union. Further, it is widely believed that Soviet defense industries are accorded highest priority in the allocation of material and human inputs in both quantitative and qualitative terms, which acts further to the detriment of the civilian sector.

Taking into account these limiting factors, the outlook for improvement in the Soviet economy is difficult to predict. In the past, attempts to enhance economic performance have been half-hearted, amounting to little more than "tinkering," mainly because the bureaucracy and political elite viewed genuine reform as a threat to their position. Shortly after taking power in 1985, however, the new General-Secretary of the Communist Party of the Soviet Union, Mikhail Gorbachev, began giving clear signals that he intended to push for better planning; to raise labor productivity through a carrot-and-stick approach, involving wage and consumer goods incentives and greater work discipline (including a campaign against alcoholism and absenteeism); to dismiss aging bureaucrats and managers; and to promote a more open discussion of economic problems.¹⁰ The Twelfth Five-Year Plan, the blueprint for the Soviet economy for the period 1986-90, bears the imprint of these Gorbachev policies, including goals for significantly higher labor productivity, a more efficient use of capital investment, a doubling of consumer goods production, greatly expanded medical and social services (which account for a large share of the real income of Soviet citizens), and major increases in personal income. Under this plan,

GNP growth is projected to rise to 3.5-4.1 percent yearly, fueled by the modernization of existing enterprises through an infusion of new industrial technologies, by greater autonomy for factory managers, by improving the linkages between research and development and production, and by rationalizing prices to demand and costs.

Early indications are that the Gorbachev reforms have had a positive impact on Soviet economic performance. Industrial production and labor productivity were both up in the first quarter of 1986, and oil production increased thus reversing a decline that began in 1983.¹¹ This latter index is especially important as the petroleum industry was the first to be singled out by Gorbachev for reform (he fired the Minister of Petroleum, personally inspected the giant West Siberian oil fields and called for greater investment in oil production); petroleum also accounts for less than 60 percent of Soviet exports and hard currency earnings, which they use to purchase grain and industrial technology from the West. Two countervailing factors to this optimistic preliminary assessment are the slump in world oil prices (which reduces the value of Soviet petroleum exports) and the nuclear accident at Chernobyl (which will curtail the production of electricity and depending on the long-term effects from radiation might damage agricultural production in the Ukraine and require the Soviets to import additional foodstuffs).

Although in the Soviet context these measures are wide-ranging in scope, the basic structure of the economy remains unchanged. The large and powerful central planning apparatus, although somewhat chastened by the Gorbachev initiatives (the long-time chief of Gosplan, the state planning agency, was dismissed and replaced by a Gorbachev appointee), is still very much a force to be reckoned with. Other bureaucratic and ministerial fiefdoms in the government and the party will continue to some extent to resist the proposed reforms out of vested interests in the status quo. Further,

some of the price revisions contemplated—and necessary for real progress economically—will prove unpopular and may need to be curtailed for political reasons. A diversion of resources from the military to the civilian sector depends on external considerations and thus will be difficult to implement in the face of rising American defense spending and the stalled arms limitations talks. Although the influence of the Soviet military in decisionmaking at the national level is probably less than most in the West imagine, the military leadership can be expected to oppose cuts in defense spending, making any shift from guns to butter that much more problematic.

As Millar notes, ". . . the fundamental strength of the Soviet economy, like the American, resides in its size, in the skills of its population, in the extraordinary richness of its natural resources and in the proven ability of the leadership to respond effectively to problems new and old."¹² Following this view, in my opinion it would be best not to overdramatize the difficulties currently confronting the Soviet economy, which will for the foreseeable future continue to grow and to provide the Soviet Union with most, if not everything, of what they need to maintain their superpower status, both politically and militarily.

Soviet Society: Ailing or Robust?

Over the last several years, in a wide variety of scholarly and mass media publications, Western researchers and journalists have painted an increasingly darker picture of social conditions in the Soviet Union and have hinted at even more difficult times to come. Nick Eberstadt, for example, stated that: "From what I can make out, the USSR is indeed in the midst of a social and spiritual collapse the likes of which we in the West have never seen, and in fact can scarcely imagine."¹³ Eberstadt, who was apparently spared the trauma of the Great Depression in the United States, bases his dire forecast on what he perceives to be a debacle in



Red Square during an anniversary celebration of the Russian Revolution

health care in the Soviet Union and a concomitant increase in the mortality rate. Similarly, in a popular book with the arresting title, *Decline of an Empire: The Soviet Socialist Republics in Revolt*, the French author Helene Carrere d'Encausse described at length various aspects of the ethnic situation in the Soviet Union (including language, migration, intermarriage, and socioeconomic inequalities), which she believes will prove especially vexatious for the Soviet leadership.¹¹ Leaving aside for the moment the fact that the Soviet Socialist Republics are decidedly *not* "in revolt," it is nevertheless true that problems related to ethnic group relations exist in the Soviet Union

today and will continue to be a factor in the years ahead.

The question in both cases has two parts: to what extent are the circumstances described real, and if they are—to whatever degree—then what do they mean for the Soviet system? Again, such subjects are important for other than the grist they provide for the academic mill. At the extreme, if social conditions in the Soviet Union are as bad as some maintain, then this may be symptomatic of a systemic breakdown. Needless to say, if the very fabric of Soviet society is coming undone, the political consequences would be enormous.

Short of that, less cataclysmic—but still serious—problems, such as the deteriorating health standards mentioned by Eberstadt, or the possibility of rising ethnic tensions, as suggested by d'Encausse, have implications for the Soviet leadership and for the military. As Ellen

Jones has demonstrated, the Soviet armed forces, like military organizations elsewhere, draw manpower from the larger society and are, therefore, to a significant extent microcosms of that society.¹⁵ Thus, manifestations of social infirmity in the Soviet Union are germane to our attempt to assess the well-being of the Soviet state, not only for their value as indicators of national vitality (or lack thereof) but also because these factors relate directly to military power. In this section, there are two issues which have emerged as points of contention in the analysis of the contemporary Soviet Union: population trends and ethnic group relations.

population trends

The demographic history of the Soviet Union is the most tragic of any country in the twentieth century in terms of the scale of population losses, not to mention human suffering. The enormity of these catastrophes is almost impossible to grasp; although precise figures are not available, it is estimated that direct and indirect population decrements due to World War I, revolution and civil war, famines, purges, forced labor, collectivization, and World War II amount to between eighty and ninety million people.¹⁶ World War II alone is believed to have resulted in twenty to twenty-two million deaths; for purposes of comparison, the United States lost about 300,000 men and women in that conflict.¹⁷

The most important long-term consequence of these disastrous events is the effect they have on population growth. Because war losses occur largely to men of military age and other traumas also tend to be selective of adults, there are huge gaps in the age structure of the Soviet population, gaps which "echo" from generation to generation, mocking the passage of time as a healer of past calamities. Combined with the normal decline in fertility, which typically accompanies modernization, the birth deficits owing to war casualties have greatly reduced the manpower pool for civilian eco-

nomics and military needs; as was discussed earlier, this is one reason why the Soviet economy is currently in difficulty.

Now, according to some authorities, the Soviet people may be experiencing another type of demographic adversity: an upturn in mortality caused by a deterioration in living standards, shortcomings in health care, and the effects of smoking and alcoholism among Soviet citizens.¹⁸ Evidence of this trend, which would be unique in the history of modern, industrialized countries, is seen in indicators of infant mortality (which is rising) and adult longevity (which is declining).¹⁹ Although these may appear to be esoteric points, their importance, if true, cannot be overstated; such signs are ominous indeed and would represent a genuine crisis in Soviet society. There is reason to believe, however, that the purported increase in mortality is spurious, in that it can be attributed to technical factors associated with the collection of population data. In this regard, Robert Lewis has shown that improvements in the statistical reporting system in the Soviet Union created an artificial "rise" in mortality indicators, because a higher percentage of deaths is now captured by the registration network than before.²⁰

Unfortunately, this question is all the more difficult to resolve because the Soviet government ceased the publication of detailed mortality data in the mid-1970s (after the figures showed that the death rate was going up). The obvious connotation that most would give to that action is that "they have something to hide." Although that certainly may be the case, it is also plausible that the Soviets panicked when the more efficient reporting system generated a rising mortality index, and—having publicly taken pride in earlier declines in the death rate—decided to withhold the information thereafter.

It would seem prudent, in light of these conflicting interpretations of the data, to downplay the crisis implications of population trends in the Soviet Union. I noted earlier that

Gorbachev has addressed the need to make improvements in health care, which might bring about positive developments in the quality and length of life for the Soviet people. Although all is not well in that country, it is probably not the case that this aspect of Soviet society will prove to be a major consideration in the calculus of Soviet power.

the ethnic factor

One of the most common misconceptions about the Soviet Union is that its citizens are all "Russians." Actually, the Soviet population consists of members of approximately 100 different ethnic groups, each with its own language and culture, and with various combinations of religious affiliation and physical appearance.²¹ Not surprisingly, such a remarkable ethnic diversity leads to social and political problems. These include discrimination and other forms of intolerance, some hostility on the part of minorities toward the Russians (who are the majority and predominant group), as well as language, education, and employment disputes.

This ethnic factor in the Soviet Union tends to be portrayed in the West as considerably more negative and potentially more disjunctive than similar cases elsewhere. Thus, subjects like language rights and bilingualism (which are typical issues in multiethnic societies) are in the Soviet context often seen as part of some sinister effort to force the assimilation of non-Russian ethnic groups into a Russian cultural and linguistic norm. Likewise, the fact that over a period of four centuries—the ethnic Russians expanded their state to control the lands of numerous neighboring peoples—the borders of that state have remained largely intact through the transition to Soviet power—results in the characterization of the Soviet Union as ". . . the world's last empire."²² The maintenance of this "Soviet empire" is then said to be dependent on clever manipulation of the political system and the pervasiveness of the secret police. Such a situation, according to

Richard Pipes, means that ". . . ethnic conflicts in the USSR assume the form of a battle of wits . . . [wherein the non-Russians] . . . try to outsmart Moscow."²³ Beneath the surface, however, Pipes believes that "there smolders resentment and, in some areas, hatred that can quickly explode into genocidal fury should the heavy hand of Russian authority weaken."²⁴

Short of this catastrophic "genocidal fury," there are some specific ethnic issues that might influence the Soviet military and society. For example, much publicity has been given lately to the changing population balance between the Russians and other European peoples of the Soviet Union, on the one hand, and, on the other hand, the predominantly Muslim peoples of the Caucasus and Central Asian regions of the country.²⁵ Because of a considerably higher birthrate among the latter, their share of the Soviet population is growing; meanwhile, the percentage of Russians is declining (they currently account for about 52 percent of the population). Some of the consequences of this trend are obvious and important: there will be a steadily larger non-Russian component in the Soviet armed services and in the labor force. However, the "crisis" label that has been attached to this trend is probably undeserved. Although some adjustments—such as more attention to Russian language training for minority draftees—will need to be made in both the military and civilian sectors, Jones reminds us ". . . that the USSR is by no means the only modern state whose military manpower management system must cope with ethnic, linguistic, and regional diversity among its troops."²⁶

Like most other issues relating to the study of the Soviet Union, an assessment of the importance of the ethnic factor depends mostly on the degree to which one is predisposed to view the Soviet Union in general. Whereas the basic structure of the Soviet state, created by Lenin in 1922, has endured these many years through extremely difficult times, there are many who nevertheless see the entire thing as ready to come apart at the seams. Certainly, many lea-

tures of the Soviet political system are not what they purport to be, and there is genuine discontent on the part of many minority group members because of their inclusion in the "fraternal socialist brotherhood of peoples." A case can be made, however, that over the decades a certain legitimacy has been attached to the Soviet federation of ethnic political units; that most people at least acquiesce to its continuation; and that a non-Russian political elite has learned how to operate within the system to gain economic and social benefits for their constituents.²⁷ As long as the Soviet leadership manages to keep nationalist urges channeled within the existing political structure, such issues as bilingualism and the changing ethnic composition of the country can probably be handled without serious trouble.

The New Political Leadership

*"A Nice Smile, But Iron Teeth"*²⁸

It is probably safe to say that the composition and outward appearance of the Soviet political leadership has undergone a more rapid and sweeping change than anyone would have thought likely, even as recently as two years ago. More than representing a generational shift and an end to the succession of elderly, ailing leaders, the Gorbachev era holds at least the possibility of major reforms in the party and government apparatus, the revitalization of the economy, the invigoration of the political elite, and a more positive or hopeful feeling about the prospects for the Soviet system among its citizenry.

The spectacular rise to power of Mikhail Gorbachev apparently began earlier than we had once thought; it now seems clear that his route to the top was assured long before his formal assumption of the General Secretary's post following the death of Konstantin Chernenko in March 1985.²⁹ This partly explains the adroit consolidation of power and elimination of rivals at the upper levels of the party and state which Gorbachev orchestrated in the first year of his ad-

ministration. Grigory Romanov, former Leningrad Party chief and once believed the most likely heir to Andropov and Chernenko, was removed from the Politburo in disgrace over abuses of his position. Other prominent figures, such as Prime Minister Nikolai Tikhonov and Moscow Party head Viktor Grishin were packed off into retirement. Perhaps most important, Foreign Minister Andrei Gromyko was "promoted" to the largely ceremonial post of Chairman of the Presidium of the Supreme Soviet; his replacement, Eduard Shevardnadze, has no prior experience of international affairs, which suggests that Gorbachev intends to run both foreign and domestic policy himself. New appointees to the Politburo or other high positions, such as Nikolai Ryzhkov (the new Prime Minister), Yegor Ligachev, Viktor Chebrikov, and Vitaly Vorotnikov, appear to be close Gorbachev associates.

The reach of the Gorbachev personnel moves, however, goes far beyond the highly publicized changes in the Politburo, portending a more fundamental restructuring of the *nomenklatura*, or listing of individuals approved for leadership or managerial positions. Thus, heads of various agencies, regional government officials, and members of the Party Secretariat have been fired or transferred to lesser duties; their replacements adhere to the new line of efficiency and discipline. In one of Gorbachev's early speeches, intended to set the tone for his administration, he told the audience: "Those who do not intend to adjust and who are an obstacle to solving these new tasks must simply get out of the way."³⁰ The blatant cronyism, stagnation, and corruption of the Brezhnev era, the "don't rock the boat" mentality epitomized by the "stability of cadres" job tenure policy may well be ending.

These sorts of actions are typical of the new leadership, which seems to have a sense of urgency about its mission to get a moribund economy, society, and political system moving ahead again. This is represented by the vigorous and highly visible personal style of Gorba-

chev, which is in dramatic contrast to Soviet leaders of the past decade who had trouble walking unassisted. Using an approach reminiscent of an American political campaign, in which he kisses babies, conducts meetings on the street with passersby, visits factories, and appears frequently on television, Gorbachev misses no opportunity to get his message across: down to the level of the average citizen, the Soviet people must dedicate themselves to hard work and a higher standard of personal conduct (e.g., a curtailment of alcoholism, corruption, and absenteeism).

The key question, of course, is how successful Gorbachev and his allies will be in effecting real political reforms and in building a popular consensus for his programs. The central problem here is that the crucial economic initiatives, especially the need to acquire advanced technology, may ultimately come at the expense of social services and price increases, a move that would no doubt alienate many people. Likewise, attempts to streamline the labor force could spell an end to the cherished job security that Soviet workers enjoy (and which contributes to low productivity). These will be difficult choices to make and may force Gorbachev to slow the pace of change.

Finally, it is unclear to what extent Gorbachev is willing to relax controls on the arts and literature and to allow open expression of dissent. Two schools of thought exist in the West on this subject. First, Seweryn Bialer and others believe that the "technocratic" approach identified with Gorbachev has nothing to do with liberalism, but rather "stresses authoritarian rule, discipline, and predictable conformist behavior." Furthermore, should Gorbachev "prove successful in making the state more efficient, the extent of its oppressiveness will also increase."³¹ Stephen Cohen, on the other hand, argues that Gorbachev's emphasis on order is designed to placate the conservative wing in the party, while he proceeds cautiously to thaw the cultural ice.³² Cohen's viewpoint received some reinforcement recently when Pyotr De-

michev, Minister of Culture since 1974 and a member of the Brezhnev clique, was shifted to an insubstantial position; although Demichev's replacement has yet to be named at this writing, this move—together with the showing of plays and films with political themes, and greater candor in the media—may herald a more relaxed environment.

If Gorbachev and his associates are planning and attempting to alter the Soviet political system and society, the struggle will be a difficult one. As Cohen notes, Gorbachev "has restored the general secretaryship as an active leadership position, relegitimizing the principle of fundamental change and created a political atmosphere of reform. But faced with legions of conservative and neo-Stalinist defenders of the status quo, Gorbachev is still far from being the master of power or policy."³³

Trying to Understand the Soviet Union

Given the obvious importance of attempting to understand the Soviet Union, present and future, it comes as something of a disappointment that our knowledge of that country today and our ability to forecast guardedly its course are so limited. Much of this state of affairs is, of course, attributable to the secretiveness of the Soviet government; although more information is available through open sources than is generally thought, the amount of data falls far short of that needed to make reasonably accurate judgments. Yet, Churchill's famous adage that Russia is a "riddle wrapped in mystery inside an enigma" is to some extent of our own making. It might be appropriate, in conclusion, to consider how we might go about reducing this aura of mystery that seems to shroud the Soviet Union, and in so doing perhaps to contribute to a more realistic view of our major competition.

First, we should put an end to the exaggeration of everything Soviet, from its military power to its social and economic difficulties.

Unfortunately, writing about the Soviet Union is often and easily given to hyperbole, most of which eventually shows itself to be unfounded. In the meantime, however, the unwary can be misled and form a false picture of the Soviet condition. The best recent example of this tendency immediately to assume the worst about the Soviets is the news reporting of the Chernobyl nuclear accident, where headlines of "thousands dead" and "mass graves" caught the attention of the American public.³⁴ Without wanting to downplay the seriousness of this event (it now appears that direct deaths owing to the mishap will number about thirty), or to excuse the Soviet government's irresponsible and unforthcoming handling of the incident, this episode shows how badly informed we are and our inclination to overstate the case. In this regard, Lewis stated:

Crisis-mongering and predictions of the collapse of the Soviet Union have been put forth in the West regularly since the founding of the state. From the current Western literature one derives the impression that here is a country characterized mainly by weaknesses and few strengths, and yet it appears to be quite stable. Such interpretations reveal more about the authors than about the Soviet Union and involve considerable wishful thinking.³⁵

Second, more emphasis must be given to a comparative perspective when analyzing the

Soviet Union. How, for example, does the notorious Russian alcoholism problem compare to the proliferation of drug abuse in American society? Is the rising proportion of minorities in the Soviet armed forces different in its impact from a similar trend in the American military? An effort to see things in the two systems as more similar than not might provide better insights into how the other side lives, works, tries to deal with problems, and perceives and defends its interests.

THE Soviet Union is a large and highly complex society which, like other such countries, faces a range of social, economic, and political problems in the years ahead. In areas where cooperation and a reduction in tensions are seen by the Soviet leadership to be advantageous, these problems will probably make them more receptive to negotiation with the West. Failing that, however, we can expect that the Gorbachev administration will do what it deems necessary to maintain the Soviet Union's status as a military, if not an economic, superpower. In so doing, the Soviet government will no doubt have the support of its citizens. In my opinion, to think otherwise is to run the risk of committing that most dangerous of mistakes, that of underestimating one's adversary.

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Notes

1. Andrei Amalrik, *Will the Soviet Union Survive until 1984?* (New York: Harper and Row, 1970).

2. Richard Pipes, *Survival Is Not Enough: Soviet Realities and America's Future* (New York: Simon and Schuster, 1984). See also Dimitri K. Simes, "The New Soviet Challenge and America's New Edge," in *Soviet Foreign Policy in a Changing World*, edited by Robbin F. Laird and Erik P. Hoffman (New York: Aldine, 1986), pp. 422-39; Seweryn Bialer, *The Soviet Paradox: External Expansion, Internal Decline* (New York: Knopf, 1986); and Theodor Winkler, "The Tottering Empire: Problems Facing the USSR in the 1980s," *International Defense Review*, No. 3, 1981, pp. 263-69.

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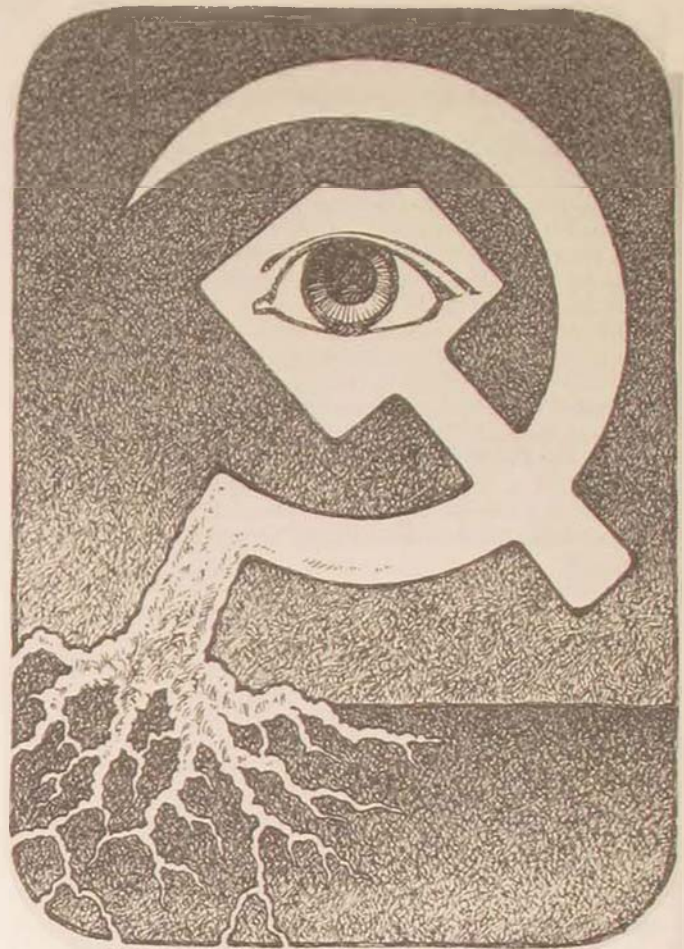
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KNOW HISTORY . . . OR BECOME HISTORY

BY every measurement, the Union of Soviet Socialist Republics is a world power of awesome dimensions. From the Ukraine to Kamchatka, it is the world's largest country, a distinction Russia has held for four centuries. Today the U.S.S.R. can stand alone as a nation self-sufficient in resources, and it can stand with any nation in the sophistication of its diplomacy, in the level of its culture, and, more pertinent to our interests, in its military power.

Any number of defense journals, DOD publications, and official briefings remind us of the dimensions of "The Threat." In numbers of divisions, ships, planes, and other hardware, the U.S.S.R. stacks up as a leading military power. How we deal with that threat lies at the very center of what professional officers are about.

In the U.S. Air Force, we put too much emphasis on the hardware aspect of "The Threat." Certainly, the MiGs, Tupolevs, and Sukhois



fielded by the Soviet air force are fine examples of aeronautical accomplishment. In fact, they are nearly as good as our best. What's more, the Soviets produce this very good stuff in extraordinary numbers. For quite some time now, nearly thirty Backfires a year have been rolling off Soviet production lines. The challenge is to prepare to fight an enemy that outnumbers and outguns us. Our best, indeed our only, chance for success is to outthink this worthy adversary. Deterrence is a political philosophy. Our job is to fight and to win. While deterrence "works," we must constantly prepare to practice our profession.

At the heart of the military profession is the art of war. The Soviets seem to understand that better than we do. By the time a Soviet officer advances to the higher ranks, he has spent far more time in professional military schools studying this art than his American counterpart. This poses an intellectual threat that is as real

as the threat posed by wings of fighters and bombers, and if we are going to meet that threat, we have to do a better job of preparing our minds for war. The study of the art of war must be at the heart of our military education, providing the foundation for all that we study and think about. Understanding the budgeting, OER, promotion, and assignment systems is secondary to mastering the art of war.

To thoroughly understand war, one has to first understand history. The foundation of our profession is not to be found in engineering or technology. It is our past that has determined what we are all about as an institution, and an

understanding of our past and present will help us chart where we may be going in the future.

The intellectual threat is one that must be met and overcome. There are no alternatives. The Soviets have numerical superiority and technological parity. Our best chance for winning does not lie in regaining the "technological high ground." After all, we held more than a technological edge in Korea and Vietnam . . . and lost. If and when we go up against the Soviets, we had better have mastered the art of war; otherwise history will be on their side, and that is precisely what we will be—history.

E.H.T.

EDUCATION AND TRAINING OF SOVIET AIR FORCES OFFICERS

DR. WILLIAM F. SCOTT
HARRIET FAST SCOTT

THE total number of Soviet officers, their pay scales, and the size of student bodies in military schools are considered military secrets. Even a sketchy career profile of an active-duty senior officer is seldom found in the Soviet press.

One unexpected fallout from the Chernobyl nuclear disaster was information about a Soviet Air Forces general, published in *Krasnaya Zvezda* (Red Star), the daily Ministry of Defense

newspaper. "In the Hour of Trial" was the headline.¹ Under the rubric "Military Character," a special military correspondent published his interview with General Major of Aviation (one-star rank) Nikolay Timofeyevich Antoshkin, chief of staff of Kiev Military District Air Forces.

The interview appeared six weeks after the 25 April explosion ripped off the roof of the building housing the Chernobyl nuclear plant. The



Soviets, after not even mentioning the accident in the press until 30 April, slowly began to publish "success" stories. The first picture appeared in *Krasnaya Zvezda* only on 15 May, three weeks later. Antoshkin's story was one of a flood of PR stories published to stem the "fallout" that resulted from the initial Soviet attempt to cover up the real fallout from the radioactive cloud that spread over Europe.

BORN in 1942, Nikolay Timofeyevich Antoshkin was one of eight children. In the "Great Patriotic War," as the Soviets call that portion of World War II in which they participated, his father was severely wounded. Young Nikolay was commissioned as an Air Force officer upon graduation from the Orenburg Higher Military Aviation School for Pilots, named for I. S. Polbin. Of the thirteen Air Force schools for pilots, Orenburg is one of the best known. Yuriy Gagarin, the world's first man in space, was an alumnus. Antoshkin graduated near the top of his class.

Lieutenant Antoshkin's first assignment as an officer was in the Belorussian Military District. As a new pilot, he was tested in both airplanes and helicopters. In 1969, at the age of twenty-seven, he was posted to the Far Eastern Military District. While stationed there, he applied to and subsequently passed the entrance examinations to attend the Gagarin Military Air Academy near Moscow. Three years later, he graduated with distinction.

His next assignment was to the Odessa Military District as a squadron commander. Two years later, he was assigned to the Turkestan Military District to command an air regiment. According to the *Krasnaya Zvezda* write-up, each unit Antoshkin commanded became "outstanding." His abilities were noticed and soon he was selected to attend the Military Academy of the General Staff. This selection was a sure indication that he was being considered for even higher advancement. Officers, generally colonels in rank, come from all the Soviet serv-

ices—Strategic Rocket Forces, Ground Forces, Troops of Air Defense, Air Forces, and Navy. Each previously has completed the three-year academy of his particular branch or service. The length of this senior-level academy is a mere two years. Colonel Antoshkin again was an honor graduate.

In 1984, Antoshkin, age forty-two, was promoted to general. And suddenly, it was 26 April 1986. With his son Sergey, daughter Lena, and his wife, Nikolay Antoshkin was eating dinner when the phone rang. He was told to report immediately to the commanding general of the Kiev Military District. General Lieutenant of Aviation N. P. Kryukov, commander of the district's aviation units, was already there. Antoshkin was ordered to go to Pripyat, near Chernobyl, and take charge of the helicopters that were to dump tons of sand directly on top of the burning reactor. The rest of the interview described this action. From 27 April to 2 May, 5000 tons of sand and other material were dropped "down the throat" of the smoldering reactors before the fire was contained.

This brief sketch of Antoshkin's career highlighted the minimum professional training and education requirements for an officer making general or admiral—first the four or five years at a "higher military school," three years at a service or branch academy, and another two years at the Military Academy of the General Staff. In addition to this professional education and training, an officer probably will attend one or more "courses," which could last for an entire year.

THE Soviet Union did not reach its military superpower status with military equipment and manpower alone. A highly trained professional group of officers was required to recommend the weapon systems needed and to help formulate the military doctrine and strategy that have placed Soviet military power and presence from Central America to the Indian Ocean. These officers were edu-

cated and trained in a professional military school system that is more than double that of any other nation.

Much is written in our press about the quantity and quality of Soviet weapons, and comparisons are made with those of our own. Some attention also is given to Soviet military organization and concepts and to numbers of military personnel. Less interest is paid to the Soviet officer corps.

Some indication of a nation's scientific and technical capability can be determined by an examination of its educational establishment, in particular its universities. In like manner, an indication of the competence of an officer corps can be gained by examining the schools in which they obtain their professional education and training. The Soviet military school system that supports those officers is as important to the Soviet military buildup as are the MiG-29 Fulcrums and the SS-25s.

A Problem of Making Comparisons

The U.S. Air Force equates to far more than just the Soviet Air Forces. The Strategic Rocket Forces, part of the Troops of Air Defense, and portions of the Troops of the Tyl (Rear Services), Building and Construction Troops, Chemical Defense Troops, Signal Troops, and Engineering Troops must also be considered. Any examination of the Soviet officer counterparts of the USAF officer must take these Soviet services and troops into account.

There are other differences. The Soviet Armed Forces are a *cadre* force in which a large number of professional officers—supported by a lesser number of warrant officers and extended-duty sergeants—prepare the manpower of the nation for military duties through compulsory military service. Every six months between 800,000 to 900,000 eighteen-year-old youths report for military service and two years later (or three years later, if sailors) are "discharged into the reserves," each receiving a new uniform as he returns to his home. They will

remain in the reserves, subject to call-up at any time, until they reach age fifty. Approximately three-quarters of a million officers are required to train and command this constantly changing military force.

To provide the initial inputs into this massive officer *cadre*, the Soviet Union has approximately 135 "higher military schools," which serve the same purpose as the three U.S. academies at West Point, Colorado Springs, and Annapolis. Graduates are commissioned as officers and at the same time receive a "higher education" degree.

For additional professional education and training of officers, there are seventeen military academies. These stand somewhere between our command and staff colleges and war colleges, insofar as rank of students is concerned. A major difference is that the course length of these academies is *three* years, with but few exceptions. At Zhukovskiy Military Air Engineering Academy, the course length is five years. At Voroshilov General Staff Academy, the course is two years, but there is one catch. Before being accepted at this academy, the officer first must have completed one of the three-year academies. The course of study at the nearest U.S. counterpart schools is one academic year.

In addition to these seventeen academies, there are numerous other training facilities for officers. At some, the course length is twelve months.

Soviet Youth and Military Training

A nation's officers are products of the social order. In a nation where military might is not a major issue, the armed forces receive little attention. This is not the case in the Soviet Union. There are few days when Soviet television does not show scenes from the Great Patriotic War. From early childhood, Soviet youth are taught the glories of the Soviet Armed Forces. As Pioneers, the nationwide organization of youth ages eight to fifteen, both boys and girls receive rudimentary military training. In the summer,

between twelve and sixteen million Soviet Pioneers participate in *Zarnitsa*, their major military-sport game.² Part of the game requires wearing gas masks while crossing "contaminated" areas. The Komsomol (Young Communist League) sponsors another game, *Orlenok*, for boys and girls ages fifteen to seventeen.³ This is a more advanced exercise, which features small-arms firing and civil defense work. Four to eight million youth participate in this game each year.

From ages fifteen to seventeen, young people are required to take 140 hours of "beginning military training," which covers basically the same areas that a U.S. recruit receives in the first few weeks after induction. Males also are supposed to attend two periods of summer camp. At age seventeen, males are given an additional year of "specialist" training by DO-SAAF. Sometimes this is as simple as driver's education but may go as far as soloing in a trainer aircraft. While this training is spotty, all male youth have received some military training by the time they reach eighteen years of age.

Komsomol organizations and other groups in the Soviet Union are charged with identifying youth who show an aptitude for military service and encouraging them to seek entry into one of the Soviet military or higher military schools, roughly the counterparts of the U.S. military academies.

The Higher Military Schools

The higher military schools accept civilians and servicemen between ages seventeen and twenty, extended duty servicemen to age twenty-three and warrant officers to age twenty-five.⁴ Certain of the higher military engineering schools accept officers for special courses. Civilian applicants for these schools must have completed their secondary (eleven-year) education. Entrance is by competitive examination, with a few exceptions.

Applicants are permitted to take the exami-

nation only for one specific school. Authorities would like to have a minimum of two servicemen, or four civilians, compete for each vacancy. For youth on active military duty, troop cadre agencies select candidates to take the examination. For civilian youth, the local military commissariat makes the initial selection, with a selection committee making the final choice.

Special preparatory training is recommended for those taking the entrance examinations. For those on active military duty, special classes of study are held at officers' clubs (*dom ofitserov*). This facility also is open to civilian youth in the vicinity. For those living near a higher military school, special two-year "patriotic courses" are conducted to assist those preparing to take the examinations. The Orenburg school, for example, ran a "Young Cosmonauts" program for boys to persuade them to become officers.

Officers in the U.S. Air Force come from a variety of sources: the Air Force Academy, ROTC, OTS, and flying schools. The Soviet officer counterparts come primarily from the Soviet higher military school system. Full identification of the schools may give a better appreciation of the scale of officer education and training than merely listing the number of schools in the various categories. Soviet approximate equivalents of the U.S. Air Force Academy are Strategic Rocket Forces, Soviet Air Forces, and Troops of Air Defense. Strategic Rocket Forces has four higher military schools. (See Table I.) In the U.S. Air Force, those Air Force Academy graduates who elect to become pilots may attend one of the six Air Force flying schools. In the Soviet Union, thirteen flying training schools (listed in Table II) under the administrative control of the Air Forces provide pilots for both the Air Forces, Navy, and possibly for a few pilots for the Troops of Air Defense as well. Course length at these schools is four years. Soviet navigators are training in two schools. (See Table III.) The Air Forces have seven higher military aviation-

engineer schools, all with five-year courses. (See Table IV.) There is an Air Forces signals school. (See Table V.) There are seven Air Forces military technical schools, which are only three years in length. (See Table VI.) Graduates are commissioned as aviation-technical officers and are awarded a diploma, not a degree.

Prior to 1981, the Troops of Air Defense had three flying training schools. Two of these were transferred to the Air Forces. The one remaining flying school for PVO is Stavropol' Higher Military Aviation School for Pilots and

Navigators (named for Marshal of Aviation V. A. Sudets).

Radioelectronic schools of the Troops of Air Defense (listed in Table VII) have six higher military schools for "Zenith Rockets" (ground-to-air missiles), plus another five schools which were transferred from troops air defense of the Ground Forces in 1981. The Cherepovets Higher Military Engineering School for Radioelectronics and Kiev Higher Engineering Radio-technical School of Air Defense have five-year courses.

Table I. Strategic Rocket Forces

Khar'kov Higher Military Command and Engineering School of the Rocket Troops

—Named for Marshal of the Soviet Union N. I. Krylov

Perm' Higher Military Command and Engineering School of the Rocket Troops

—Named for Marshal of the Soviet Union V. I. Chuykov

Rostov Higher Military Command and Engineering School of the Rocket Troops

—Named for Chief Marshal of the Artillery M. I. Nedelin

Serpukhov Higher Military Command and Engineering School of the Rocket Troops

—Named for Lenin's Komsomol

Table II. Soviet Air Forces

Armavir Higher Military Aviation School for Pilots

—Named for Chief Marshal of Aviation P. S. Kutakhov

Balashov Higher Military Aviation School for Pilots

—Named for Chief Marshal of Aviation A. A. Novikov

Barnaul Higher Military Aviation School for Pilots

—Named for Chief Marshal of Aviation K. A. Vershinin

Borisoglebsk Higher Military Aviation School for Pilots

—Named for V. P. Chkalov

Chernigov Higher Military Aviation School for Pilots

—Named for Lenin's Komsomol

Kacha Higher Military Aviation School for Pilots

—Named for A. E. Myasnikov

Khar'kov Higher Military Aviation Schools for Pilots

—Named for S. I. Gritsevets

Orenburg Higher Military Aviation School for Pilots

—Named for I. S. Polbin

Saratov Higher Military Aviation School for Pilots

Syzran' Higher Military Aviation School for Pilots

—Named for Sixtieth Anniversary of the U.S.S.R.

Tambov Higher Military Aviation School for Pilots

—Named for M. M. Raskova

Yeysk Higher Military Aviation School for Pilots

—Named for Cosmonaut V. M. Komarov

Ufa Higher Military Aviation School for Pilots

Table III. Soviet Higher Military Schools for Navigators

Chelyabinsk Higher Military Aviation School for Navigators

—Named for the Fiftieth Jubilee of the Komsomol

Voroshilovgrad Higher Military Aviation School for Navigators

The Military Academies

In order to attain the rank of colonel or higher, a Soviet officer must first attend the appropriate service or branch academy. (Those officers who are to make general or marshal later must attend the Academy of the General Staff.) Since entrance to these academies is primarily by competitive examination, the officer should begin studying for the examinations after only three to four years service. Senior officers recommend that the prospective

student put in more than 2000 hours of preparatory work, which would be in addition to normal duties!

Officers graduating from a higher military school with a gold medal may be admitted to an academy by passing only one examination with a "good" mark. Commanders of units that have been given "good" or "excellent" ratings may be selected by merely passing the entrance examination. These modifications to the competitive examination process give a selection board considerable leeway.

Table IV. Soviet Air Forces Higher Military Aviation-Engineer Schools

Daugavpils Higher Military Aviation Engineering School

—Named for Yan Fabritsius

Irkutsk Higher Military Aviation Engineering School

—Named for the Fiftieth Jubilee of the Komsomol

Kiev Higher Military Aviation Engineering School

Khar'kov Higher Military Aviation Engineering School

Riga Higher Military Aviation Engineering School

—Named for Ya. Alksnis

Tambov Higher Military Aviation Engineering School

—Named for F. E. Dzerzhinskiy

Voronezh Higher Military Aviation Engineering School

Table V. Soviet Air Forces Signals School

Khar'kov Higher Military Aviation School of Radioelectronics

—Named for Lenin's Komsomol of the Ukraine

Table VI. Soviet Air Forces Military Technical Schools

Achinsk Military Aviator-Technical School

—Named for the Sixtieth Anniversary of the Komsomol

Kaliningrad Military Aviation-Technical School

Kirov Military Aviation-Technical School

Perm' Military Aviation-Technical School

—Named for Lenin's Komsomol

Vasil'kov Military Aviation-Technical School

—Named for the Fiftieth Jubilee of Lenin's Komsomol

Lomonosov Military Aviation-Technical School

Table VII. Soviet Higher Military Schools (Troops of Air Defense)

Krasnoyarsk Higher Command School of Radioelectronics for Air Defense

Vil'nius Higher Command School of Radioelectronics for Air Defense

Pushkin Higher School of Radioelectronics for Air Defense

Zhitomir Higher School of Radioelectronics for Air Defense

—Named for Lenin's Komsomol

Cherepovets Higher Military Engineering School of Radioelectronics

Kiev Higher Engineering Radiotechnical School of Air Defense

—Named for Marshal of Aviation A. I. Pokryshkin

Examinations are both written and oral, but all are in the Russian language. This makes it more difficult for an officer from a non-Slavic group, whose native language is not Russian, to gain admittance. At the Gagarin Military Air Academy, written entry examinations are required for Russian language and literature, with oral tests for mathematics and physics.⁵

Three tries for the entrance examinations are permitted. Reserve officers who have volunteered to become regular officers or who have had two or three years of active duty have the same rights as regular officers to take the examination.

As USAF officers may receive credit for certain schools by correspondence, Soviet officers may do the same for a military academy (except the Academy of the General Staff). Once permission is given to take the correspondence course, the officer must be freed of after-hour duties in order to study. He is also authorized time off from regular duties to prepare for and to take the required examination.

It is expected that an officer seeking admission to an academy will be either a member or a candidate member of the Communist Party. A part of a Soviet officer's effectiveness report is made by the unit's political officer. Due attention to party affairs is one of the points noted. There are many assignments throughout the Soviet Armed Forces that can only be filled by academy graduates. It is unlikely that an individual without party credentials would be permitted to assume these *nomenklatura* positions, that is, positions on a special list, subject to party approval.

The academy attended will depend on the officer's branch and service. The approximate Soviet counterparts of the United States' Air War College and other courses of the Air University are the following.

The Gagarin Military Air Academy is located at Monino, northeast of Moscow, in an area closed to foreigners. Almost all the senior officers in the Soviet Air Forces will have attended this academy. It is charged with the

preparation of "command cadres of various aviation specialties and is a scientific center for working out problems of operational art of the Air Forces and tactics of branches and types of aviation."⁶ Part of the course involves developing new techniques in the operational use of the aircraft.

The Gagarin Military Air Academy boasts that more than 70 percent of academy graduates are distinguished pilots of the U.S.S.R. and distinguished navigators of the U.S.S.R. This academy has played a major role in the development of the Soviet Air Forces. In the 1960s, when the "third generation"⁷ of Soviet aircraft first appeared, the academy was directed to study how the new equipment could best be utilized. Basic air tactics, combined with the theories of combat effectiveness and decision-making, were made a separate discipline. Specialized studies were made of tactics for each type of aircraft. In addition to providing the basic three-year course for Soviet officers, the academy also offers courses to prepare the teaching staffs of the various higher military aviation schools. Faculty members also write many of the textbooks used throughout the Soviet Air Forces.⁸

Much attention is given to correspondence courses. This program is exactly the same as for full-time students. One-third of the study time must be spent at the academy at special sessions while the other two-thirds is done independently wherever the officers are serving.⁹ This means that even for officers taking the course by correspondence, at least *one year* must be spent at the academy. Soviet officers insist that, for career and promotion purposes, completing the academy by correspondence counts as much as being a full-time student. The present head of the Soviet Air Forces, Marshal of Aviation A. N. Yefimov, completed the course in this manner.

On the instructional staff of the Gagarin Military Air Academy are 13 doctors of science, 233 candidates of science (a degree somewhat higher than the master's degree in the United

States), 10 professors, and 170 associate professors and senior researchers. (The total would only be about 250 since most professors are doctors of science and most associate professors are candidates of science). Its library has more than 500,000 books. The academy is qualified to award both the advanced degree of candidate of sciences and doctor of sciences.¹⁰ (This degree has no exact equivalent in the United States. Individuals receiving it are required to be a recognized authority in their field and to have defended a dissertation.)

The academy is a leading scientific center of the Soviet Air Forces.

Not a single problem, not a single complex theme connected with the combat use of aviation is decided without the active participation of the scientific strength of the academy. In most cases, it acts as the leading performer of complex research in the sphere of tactics and operational art of the Air Forces.¹¹

Research tasks are assigned by the Minister of Defense, the General Staff, the CINC Air Forces, or the Main Staff of the Air Forces. Joint research is conducted with the Zhukovskiy Military Air Engineering Academy, the Voroshilov Military Academy of the General Staff, the Zhukov Air Defense Academy, the Frunze Military Academy, the Malinovskiy Tank Academy, and similar bodies. Between 1975 and 1980, "the Gagarin Academy participated in more than fifty scientific conferences and about sixty exercises."¹²

During the summer months, both faculty members and students go to the field to participate in maneuvers and exercises. Rated personnel are assigned on temporary duty to flying units or flying schools.

The present head of the academy, Marshal of Aviation N. M. Skomorokhov, graduated from the Academy of the General Staff with a gold medal, earned the degree of doctor of military science, was an ace in World War II (forty-six kills), and was twice awarded the gold star of "Hero of the Soviet Union."

More information is available on the Gagarin Military Air Academy than on the other

approximate equivalents of Air University components. It is reasonable to assume that many of the conditions at the other academies, such as award of advance degrees, are the same.

The Zhukovskiy Military Air Engineering Academy is located in Moscow, on Leningrad Prospekt immediately across from Central Airfield. Course length is *five* years. In addition to being an institution of higher learning, it also is a scientific center for working out problems in the areas of aviation technology, its technical exploitation, and *combat utilization*.

The Zhukov Military Command Academy of Air Defense is located on the banks of the Volga River in Kalinin, a city between Moscow and Leningrad. In addition to its educational and training tasks, this academy is a research center for studying problems of operational art and tactics, as well as command, communications, and control (C³) on air defense matters.

The Govorov Military Engineering-Radio-technical Academy of Air Defense is located in Khar'kov. As any tourist to the Soviet Union can note, the nation appears blanketed with radars and communications facilities. This academy prepares officers of the Troops of Air Defense in these two areas. Faculty members engage in research, and their technical publications are known throughout the Soviet Union.

The Dzerzhinskiy Rocket Forces Academy is located next to the Rossiya Hotel on the embankment near the Kremlin. Formerly the Artillery Academy of the Red Army, it was moved from Leningrad to Moscow in 1958, the year before the Strategic Rocket Forces were formed. Officers in command positions in the Strategic Rocket Forces would seek admission to this academy. All information about this academy is highly classified. Its two major faculties are "command" and "engineering."

A rigorous schedule is maintained at all the academies. Classes start at 0800 and continue until 1400. A two-hour lunchtime follows, but there is little time for relaxation or study. Officers eat in a cafeteria where they stand in long lines. At 1600 students return to classrooms.

Lecture notes must be entered into notebooks, and practically all material is considered classified. At 2000 they leave classrooms. During the summer months they, together with their instructors, take part in field exercises and maneuvers.

All of the academies at this level are three years, except for the Zhukovskiy Military Air Engineering Academy, which is five years. Many officers enter in the grade of captain and are majors when they graduate.

After completing the academy, officers later may attend the "Higher Courses for Air Forces Officers" or the "Central Radiotechnical Officers' Courses of Troops of Air Defense." These courses are usually for one year. There probably are classified higher courses for officers in the Strategic Rocket Forces.

The Voroshilov Academy of the General Staff is located in Moscow, on Khol'zunova Pereulok, Dom 14, not far from the Frunze Military Academy. The "best and the brightest" officers of all the Soviet Armed Forces are selected to attend this senior and most prestigious of all the Soviet academies. Most are colonels or newly promoted generals. Officers selected for this academy first will have attended the appropriate service or branch academy. Graduates who are not already generals or admirals usually are promoted to this rank a short time after completing the course. Length of the academy is only two years, in contrast to the three years for the branch and service academies.

Three of the primary *kafedras* (departments) are the *kafedra* of strategy, *kafedra* of operational art, and *kafedra* of history of wars and military art.¹³ All three are headed by general lieutenants. Faculty members may be of one-star rank. Before admittance to this academy, it is expected that the students will have a sound basis of military history, to include the writings of strategists such as Clausewitz and Suworov. Students receive operational-strategic training by studying strategic actions in theaters of military actions (TVDs), not just in theory (about one-sixth of the time is given to lectures)

but also through war games and exercises on maps to which is given more than one-third of their time. Nearly half their time remains for independent work.

The armed forces of "capitalist" nations receive considerable attention. At least one general officer lectures on this subject. Graduates go into *nomenklatura* slots that can be filled only by those who have completed the Voroshilov Academy. Generals and admirals may return to the academy for refresher courses, some of which last one year.

The Soviet military academies are much more than institutions of higher learning. They also are the Soviet military think tanks and research centers. They do the type of research and studies for the Ministry of Defense that the Pentagon would contract out to research institutes such as Rand, the Hudson Institute, or one of the dozens of other groups.

The importance of the academies can be seen by the rank and prestige of their personnel. By Soviet law, heads of the academies are of the same rank as commanders of military districts. Their promotions appear just as frequent. The most important academies are headed by marshals, admirals of the fleet, or four-star "generals of the army." Regulations stipulate that department heads at the military academies are equivalent to division commanders, and they are promoted to the appropriate rank.

More than seventy generals, admirals, and marshals have been identified as serving at the Academy of the General Staff at one time, which comes directly under the General Staff. More than thirty generals have been on the faculty of the Frunze Military Academy. Numbers of generals and marshals at the Gagarin Air Academy are unknown, but in all probability they are in excess of what might be expected.

Soviet strategists may serve for years at one academy. For example, many of the contributors to Marshal V. D. Sokolovskiy's *Military Strategy* were on the General Staff or the faculty of the Academy of the General Staff. The first edition of this work appeared in 1962 and

the third in 1968.¹⁴ The contributors listed were the same, except for one who had died. In 1966, the *Tactics*, written by faculty members of the Frunze Military Academy, appeared as one of the "Officers' Library" series of books. A second edition of this same work appeared in 1984, eighteen years later, also in another "Officers' Library" series, written by the same authors, all of whom were still at Frunze.

General David Jones, former Chief of Staff, USAF, and later Chairman of the Joint Chiefs of Staff, stated that "if Clausewitz were alive today and living in the United States, he would have retired as a colonel and then would have gone to work in a think tank."¹⁵ The system is very different in the Soviet Armed Forces. In the Soviet Union, a Clausewitz would be a general or marshal, serving either in the General Staff or as department head in one of the academies.

Practically all of the significant Soviet books and articles on military matters are written by members of the Military Science Administration of the General Staff or by faculty members of the military academies.

Soviet Academies and the Military Role of Space

A photograph in the Soviet book, *Voyenno-Vozdushnaya Akademiya imeni Yu. A. Gagarina* (the Military Air Academy named for Yu. A. Gagarin) demonstrated an interesting relationship. In the front row were Marshal of Aviation I. N. Koshedub (a leading World War II ace); Marshal of Aviation A. N. Yefimov, at that time deputy CINC Air Forces; Colonel V. V. Tereshkova, first female cosmonaut; and Chief Marshal of Aviation of the Soviet Air Forces P. S. Kutakhov, CINC Air Forces, now deceased. In the rear row were General Lieutenant of Aviation G. T. Beregovoy, cosmonaut and chief of the Gagarin Center for Cosmonaut Training; Marshal of Aviation N. M. Skomorokhov, Commandant, Gagarin Military Air Academy; and cosmonaut General Lieutenant of Aviation V. A. Shatalov, Director of Training of Soviet Cosmonauts.¹⁶

The connection of the chiefs of the Soviet cosmonaut program to the Gagarin Military Air Academy and the CINC, Soviet Air Forces, should warrant serious study in the United States.

At least fifteen of the Soviet cosmonauts have completed the Gagarin Military Air Academy.¹⁷ Some have completed the course by correspondence, but even this method required at least one year "in-house" attendance. Military strategists and tacticians, both faculty and students, can work with the cosmonauts studying the role of man in military spacecraft.

Another thirteen cosmonauts have attended the five-year Zhukovskiy Military Air Engineering Academy. The cosmonauts taking this course could be expected to work with scientists and engineers for the "military utilization" of manned spacecraft as well.

Lieutenant General Richard C. Henry, a previous commander of the USAF Space Division, once stated that the best way to discover the military application of man in space is to place a manned space station in orbit. The Soviets have been doing precisely that for well over a decade, keeping men in orbit for months at a time. General Henry might have added that follow-on steps also would be necessary. The experience gained in manned space flight would need to be related to military requirements. Cosmonauts attending the three-year Gagarin Air Academy or the five-year Zhukovskiy Military Air Engineering Academy are placed in the ideal Soviet environment to do just that.

The Kremlin leadership attempts to convince foreigners that their space program is "for peaceful purposes only," directed by the Academy of Sciences. Facts tell a different story. Approximately 80 percent of Soviet space launches have been for military needs. Details of this program are among the Kremlin's most closely guarded secrets. All evidence suggests that the military academies are playing their traditional role in "working out problems of operational art and tactics" for the military use of space. At the Academy of the General Staff, it

should be expected that they also have studied the role of space in military strategy.

Soviet cosmonauts are an integral part of the Air Forces. All remain on active duty. Three are general lieutenants of aviation (two stars), seven are general majors of aviation (one star), and at least twenty-two are colonels. They are on a fast promotion track.

Much of the use of unmanned space vehicles in a defense role may be worked out in two of the military academies of the Troops of Air Defense. The Zhukov Military Command Academy of Air Defense is charged with "working out recommendations for building a modern air defense." This includes antimissile and antispace defense. As a previous commandant of this academy, Marshal of Aviation Georgiy V. Zimin, doctor of military science, noted in 1976:

Now victory or defeat in war will depend on how well the state will be able to reliably protect important objectives on their own territory from destruction by strikes from the air and from out of space.¹⁸

The Govorov Military Engineering Radio-technical Academy is a major think tank for determining types and locations of radars and related means of identifying and tracking both missiles and spacecraft. Close ties are maintained between the academy's faculty and the Academy of Sciences.

Self-Study Requirements

The Soviets do not have the up-or-out system for officers. A captain, for example, may remain in that grade until age forty. But those who do get to the top are expected to have a sound understanding of military fundamentals, from military strategy to tactics. Much of this is learned in the classroom. At the same time, the officer will not likely reach the classroom unless he has taken advantage of the available professional military journals and books.

In the 1960s an "Officers' Library" series was

produced by Voenizdat, the Ministry of Defense Publishing House. Its purpose was for the "self-study" of officers. Books in the series, based on Marxist-Leninist philosophy, were not objective in any sense. Nevertheless, as military textbooks for explaining a concept of war, they were unmatched by anything written by active-duty military officers in the United States. Another "Officers' Library" series was introduced in 1980.

Officers are expected to read the professional journals of their particular service. For the Air Forces, this is *Aviatsiya i Kosmonautika* (Aviation and Cosmonautics); for the Troops of Air Defense *Vestnik Protivovozdushnoi Oborony* (Herald of Air Defense). *Voyenno-Istoricheskii Zhurnal* (Military History Journal) is read throughout the Soviet Armed Forces and is perhaps the best written of the military publications. *Voyennaya Mysl'* (Military Thought) is the restricted journal of the Soviet General Staff.

In certain cases, active debates and differences of opinion are permitted in Soviet military journals, and at times may be encouraged. For example, in the 1960s, *Voyennaya Mysl'* carried an article by a general officer on the tactical use of nuclear weapons. A number of readers disagreed with his conclusions and their views were published. One of those dissenting was a colonel. *Voyenniy Vestnik* (Military Herald), the Soviet Ground Forces' journal, at times calls for different points of view and debates on specified themes. However, it should be recognized that no open debates or differences of opinion are permitted on matters such as military doctrine, which is determined by the party leadership, or on military strategy, which is common to all of the Soviet services.

The Unknown Equation

In the United States, the focus is on weapon systems. In comparison to the leadership of the Soviet Armed Forces, the Pentagon pays little attention to the *professional* military educa-

tion and training of its officers. Emphasis at our military academies is on science and engineering. Only lip service is given to teaching military history, strategy, operational art, and related military subjects. For further academic training, officers are sent to civilian universities to study subjects ranging from business management to nuclear physics. When national security issues are studied, the professors are most likely to be individuals whose knowledge of war is purely theoretical.

Even if the study of war were the primary subject taught at the Air War College and the Air Command and Staff College, only a bare start could be made. One year simply is insufficient for the topics that need to be covered. At present, military subjects must compete with a variety of other courses, from personal finances to community relations.

On occasion, efforts are made to make the U.S. war colleges as centers of military thought and to develop new military concepts. Some progress has been achieved. The Army Command and General Staff College at Fort Leavenworth, Kansas, now is experimenting with a two-year course. In general, however, within the U.S. Armed Forces, serious top-level support is lacking for increased professional military education of officers or for use of the war colleges as military intellectual centers.

Should studies be needed on matters of military strategy or operational art, the civilian hierarchy in the Pentagon would most likely go to a "think tank" or perhaps to some civilian considered by them to be a military strategist. As General Jones implied, there is little requirement within the U.S. military services for an officer interested in military concepts such as strategy.

Ironically, the individuals in the United States today most qualified and concerned with military strategy may be such persons as Senators John Warner and Sam Nunn, key staff members on committees such as the Armed Forces Committee, and members of groups such as the Committee on the Present Danger.

In the 1930s, much of the "thinking" in the Army Air Corps was done at the Air Tactical School at Maxwell Field, Alabama. There was some effort in the postwar period to revive this practice. Instead, however, civilian institutes were established to chart the future development of the Air Force, to include matters of strategy and force development. Alumni of the "think tanks" now occupy many of the military decisionmaking positions in the Pentagon and throughout the U.S. government.

In the Soviet Armed Forces, the purely military "thinking" is done by military personnel. Their professional military education has not made all their officers military geniuses. But Soviet colonels will have received a minimum of three years in a branch or service academy and Soviet generals and senior colonels another two years at the Academy of the General Staff. This education, with its emphasis on Marxism-Leninism, may leave much to be desired. However, it is this leadership that now controls the world's largest military force. To judge their concepts and understanding of war, one need only read books such as Marshal Sokolovskiy's *Military Strategy*, General Colonel Reznichenko's *Tactics*, or some of the declassified editions of *Military Thought*, the official journal of the Soviet General Staff.

In an effort to prevent the Soviet Union from achieving a position of military superiority, within the past few years the United States has spent hundreds of billions of dollars on new weapon systems. While these systems are necessary, a primary aspect of the danger is being overlooked. The Soviet Union not only is building up its weapon stockpiles, it also is paying increased attention to the professional education and training of its officer corps. Courses are being lengthened, and the study of war continues to be emphasized. The United States has not given equivalent attention to its military leadership.

THESE differences in professional education between U.S. officers and their Soviet counter-

parts should be of concern. In the final analysis, this could be the determining factor in the

military balance between the two nations.

McLean, Virginia

Notes

1. "In the Hour of Trial," *Krasnaya Zvezda*, 7 June 1986, p. 3.
2. *Krasnaya Zvezda*, 24 June 1983. Also see *Sovetskaya Voenennaya Entsiklopediya* (Soviet Military Encyclopedia), vol. 3 (Moscow: Voenizdat, 1977), p. 409.
3. *Ibid.*, vol. 6, 1978, p. 115. Also see, L. Pesterev, "It Is Not a Vacation in 'Orlenok'," *Voyennyye Znaniya* #4, April 1975.
4. I. A. Kamkov and V. M. Konoplyanik, *Voyennyye Akademii i Uchilishcha* (Military Academies and Schools) (Moscow: Voenizdat, 1972), p. 46.
5. A. G. Gornyy, editor, *Spravochnik po Zakonodatel'stvu Dlya Ofitserov Sovetskoy Armii i Flota* (Handbook on Legislation for Officers of the Soviet Army and Navy) (Moscow: Voenizdat, 1976), p. 205.
6. N. M. Skomorokhov, "The Military Air Academy Named for Yu. A. Gagarin," *Sovetskaya Voenennaya Entsiklopediya*, vol. 2, p. 199. Emphasis added.
7. N. M. Skomorokhov, *Voyenno-Vozdushnaya Akademiya imeni Yu. A. Gagarina* (The Military Air Academy named for Yu. A. Gagarin) (Moscow: Voenizdat, 1984), p. 161.
8. *Ibid.*, p. 170.
9. *Ibid.*, p. 173.
10. *Ibid.*, p. 178.
11. *Ibid.*, p. 176.
12. *Ibid.*, p. 177.
13. Compiled from V. G. Kulikov, editor, *Akademiya General'nogo Shtaba* (Academy of the General Staff) (Moscow: Voenizdat, 1976).
14. See V. D. Sokolovskiy, editor, *Soviet Military Strategy*, third edition, with commentary by Harriet Fast Scott (New York: Crane, Russak and Company, 1975), pp. xxiv-vii.
15. Told by General David Jones during a reception hosted by *Air Force* magazine on 2 March 1982.
16. N. M. Skomorokhov, p. 128. (Note: Pages containing photographs are not numbered. The photograph referenced is on the page following p. 128.)
17. Compiled from *Aviatsiya i Kosmonavtika* (Aviation and Cosmonautics), March 1985, pp. 42-43, *Voyenno-Vozdushnaya Akademiya imeni Yu. A. Gagarina* and other files.
18. G. V. Zimin, *Razvitiye Protivovozdushnoy Oborony* (Development of Antiair Defense) (Moscow: Voenizdat, 1976), p. 191.

SOVIET CONCEPTS OF SECURITY

reflections on KAL flight 007

DR. DAVID R. JONES

IN an era of rapidly moving events and journalistic sensationalism, the furor roused by the downing of Korean Air Lines (KAL) Flight 007 on 1 September 1983 has largely dissipated. Many questions remain without definitive answers. Perhaps the most obvious is how the Korean airliner wandered so far off course. This question is particularly perplexing when one recalls that the same airline had already violated Soviet airspace in 1978 over the Kola Peninsula—again with disastrous results—and that the region over which Korean Air Lines 007 now had strayed is marked clearly on navigation charts with the warning: "Aircraft infringing upon nonfree flying territory may

be fired on without warning." Nonetheless, the Soviet air defense (PVO) authorities' response—all 269 aboard perished—struck non-Soviet observers as grossly brutal.

Some, of course, see this incident—dubbed "the Korean airline massacre" by an angry President Reagan—as fitting well into the pattern of behavior expected from the "empire of evil." For them the PVO's behavior—like the Soviets' invasion of Hungary, Czechoslovakia, and Afghanistan—was a typical act of "a dispassionate, pragmatic, and cold-blooded superpower that does not shrink at any action that would serve its political goals," regardless of cost or adverse publicity.¹ Even so, a number



of considerations make this judgment less than compelling.

In particular, the furor over KAL 007 dealt a disastrous blow to Moscow's "peace offensive" and badly damaged efforts to forestall the deployment of new American missiles in Europe by influencing Western European opinion. Further, the Kremlin's initial confusion about both the details of the action and the proper response to Western charges suggested that the action did not result from any well-thought-out, cold-blooded decision on the part of political decisionmakers. There were other signs indicating that the Soviet leadership was less than happy with the way their military had handled the unarmed Korean intruder. These included rumors of a shake-up of the Far Eastern PVO command, the admission by Soviet delegates to a conference in Edinburgh, Scotland, that the decision had been an error, and in January 1984, a veiled criticism of the procedures that followed on the previous 1 September appeared in the official journal *Aviatsiia i Kosmonavtika*.²

If many could not accept the extreme view of Soviet wickedness, they found Moscow's "explanations" and countercharges even less convincing. Having reluctantly admitted downing the airliner, the Soviet authorities at first denounced its intrusion as a deliberate American provocation, and then labeled it as part of an elaborate spy mission. These themes emerged in the statements of such senior Soviet military figures as the Chief of the PVO's Main Staff, the late Colonel General S. F. Romanov, Marshal of Aviation P. Kirsanov and, most notably, the then-Chief of the Armed Forces General Staff Marshal N. V. Ogarkov.³ But despite considerable technical elaboration, the Soviet soldiers' arguments won few converts. Indeed, the very expenditure of so much technical competence in support of an apparent fabrication only further damaged Soviet credibility.

In retrospect, it seems clear that the PVO controllers did believe that they were tracking an American reconnaissance aircraft, and that the downing of Flight 007 resulted from their

strict adherence to operational procedures introduced after that 1978 incident. Although the local command undoubtedly kept the PVO's central headquarters in Moscow informed of their activities, it is almost certain that Ogarkov was truthful in ascribing the decision to "stop" the flight to that local authority, presumably the PVO headquarters of the recently reestablished (1978) Far Eastern Command. Apart from the standing procedures, the willingness of the local authorities to act decisively probably was heightened by the unfortunate coincidence of KAL 007's intrusion with a Soviet ICBM test, and the fact that it took place over the strategically sensitive Sea of Okhotsk, the intended wartime sanctuary for the Pacific Fleet's ballistic missile submarines. As a result, the unwillingness of the Soviets to abandon their version of events in part may have reflected an attempt to protect the PVO's morale and effective "combat readiness."⁴

To most Western readers, who until recently paid little attention to the problems of an active air defense, this last consideration may seem somewhat unlikely. Yet such a conclusion would ignore the Soviets' frequent and repeated public exhortations that the Armed Forces in general and the Air Defense Troops in particular must be ever ready to repel an aggressor. Writing in 1978, Marshal P. F. Batitskii—then the PVO Commander-in-Chief—boasted that "in peacetime the National Air Defense Troops vigilantly and reliably preserve the security (*bezopasnost'*) of the homeland of October and of the peaceful labor of the Soviet people." He closed by insisting that his service "demonstrates the steady fidelity" to the "sacred duty" allocated the Armed Forces by the Brezhnev Constitution; that is, the duty "to provide a reliable defense of the socialist Fatherland, and to be in a continuous state of combat readiness that guarantees the immediate repulse of any aggressor."⁵

Behind these vague exhortations for "combat readiness" lies a mentality that is even less understood by most non-Soviets. It emerges

clearly from a story by Ivan Chernykh, which appeared in 1973—the era of growing détente—in the *"Biblioteka yunogo patriota,"* a series devoted to stories "on the Homeland, on deeds, and on honor." Published by the Ministry of Defense in a printing of 65,000 copies, Chernykh's book described "our military flyers and their heroic and completely romantic profession." But his was not another tale of the years of the Great Patriotic War (1941-45). Rather, as the publisher's note stressed, it dealt with events of the 1960s. Then the hero in the story, "the young officer Boris Vegin," developed his skills in "the friendly combat family of an aviation regiment." The high point of his career comes when he then tests these skills at "the decisive moment, when a foreign aircraft violates our frontiers" and Vegin "demonstrates in practice his readiness to defend the Homeland."⁶

Equally unfamiliar to Western readers is the world inhabited by Vegin and presumably by the pilot who downed KAL 007. It is one in which, allegedly, "unidentified reconnaissance aircraft cruise almost daily in the neutral zones over international waters along our frontiers." Equipped with the latest electronic equipment, they "keep our military installations under observation from the frontier." But if they make especially close approaches to the Soviet border, Chernykh's hero tells the reader, "they are met in the air by our interceptors." On such occasions, the spy plane usually takes evasive action and flies off. And then, he notes "we are forbidden to approach them to a distance in which on-board weapons can operate." The reason, our hero tells us, is that "on one occasion, when an interceptor from a neighboring air-drome approached a spy plane, it fell into the ocean. It was never recovered and the cause of the pilot's disaster remains unexplained. Possibly the spy plane hit him, perhaps something else happened."⁷

There is no need to discuss at length the debates between Vegin's fellows on how to deal with intruders or to recount the story of his

own successful destruction of one such spy. However, it should be pointed out that this tale, along with the more theoretical justifications for the need for readiness, highlights another theme of the Soviets' response to Western charges during the KAL affair. In discussions with Secretary of State George P. Shultz in Madrid on 8 September 1983, Foreign Minister Gromyko also underlined the "sacred duty" of defending the U.S.S.R.'s frontiers. And Ogar-kov, when asked if such protection was worth 269 deaths, answered similarly. "Protection of the sacred, inviolable border of our country, and of our political system," the marshal said, "was worth to us many, many millions of lives."⁸ Although some dismissed such statements as meaningless rhetoric, this is precisely the language used in the "Law on the Border of the USSR" of 24 November 1982. "The protection of the USSR state border," reads the preamble, "is a very important, inalienable part of the defense of the socialist fatherland. The USSR state border is inviolable. Any attempts to violate it are resolutely suppressed." Article 27 gives responsibility for such suppression to the Border Troops and PVO, while Article 36 permits the "use of weapons and combat hardware . . . against violators of the USSR state border on land and water or in the air . . . when the violation cannot be stopped or the violators detained by other means."⁹

That these grim words are not mere rhetoric is clear from the fate of KAL 007 and its passengers. However, the motives behind both the law and the act are open to debate. In this regard, much has been said of the Soviet's alleged paranoia. Such an explanation naturally outrages extreme anti-Communists. They reject the idea that the Soviets are particularly suspicious or paranoid. Instead they argue that the Soviet Union is a tyranny, that tyrannies are held together by fear, and that the Soviets shot down the Korean airliner "to make other people afraid of them."¹⁰ Proponents of this view insist that such paranoia exists only in the minds of Western liberals who are unwilling to

face the reality of the Soviet Union. Such ideological flourishes need not detain us, but we should note that the paranoia theory is not solely the property of liberals. The Under Secretary of State for Political Affairs Lawrence Eagleburger, who is hardly known for his lenient views of Soviet misbehavior, has advanced it as well when he said: "There is this massive concern for security, there is massive paranoia, and I think this act was simply an expression of those concerns, that excessive concern for security."¹¹

In arguing that "the character of the Soviet Union" partly explains the KAL incident, Eagleburger was merely reflecting one recent trend in Western strategic thought. A number of scholars have stressed the importance of escaping from ethnocentric constraints in our assessments of other nations. They suggest that different countries have developed different "strategic cultures" to meet unique security problems, and that in dealing with these countries, it is as vital to appreciate their perceptions of their own needs as it is to define our own.¹² Therefore, an examination of the Soviets' conception of security should provide a context for better evaluating both the tragic end of Flight 007 and their approaches to other issues. For example, in answering questions about the Geneva arms negotiations, the late Defense Minister D. F. Ustinov insisted that NATO wants "us to agree to a direct weakening of our security and the security of our allies."¹³ And even if this statement too is dismissed as posturing, it remains clear that serious negotiations will have to consider just what security means to Ustinov and his colleagues.

WE should first note that *bezopasnost'* denotes somewhat more than the English word *security*. For example, it can also mean "safety," in the sense of "absence of threat"; in a technical sense it translates as "foolproof"; and the phrase *v bezopasnosti* means "in safety," or "out of harm's way."¹⁴

The Russian word therefore has a sense that perhaps is better expressed in English as "absolute security." It is, of course, virtually impossible for any nation to achieve this state in the international arena, but the Russians have had a particularly difficult time in gaining even minimal levels of "security." Ironically, the same geopolitical factors that created this situation naturally have increased a Soviet thirst for true security, to escape "out of harm's way." It is this state of affairs that explains the Russians' oft-cited "paranoia," and unfortunately Russian geography and history have given them a good basis for such feelings.

This view also assumes an essential continuity that bridges 1917 to make the Soviet Union the direct heir of the czarist empire. Many, including Aleksandr Solzhenitsyn, have rejected this notion and insisted that today's expansionist, despotic Communist state has little if any relationship to imperial Russia.¹⁵ In their opinion, the Soviet Union is more Marxist-Leninist than it is Russian. In the security sphere, however, Peter Vigor is quite correct in maintaining that most initiatives and policies will not be adopted unless they please both the "Soviet nationalists" and any "Marxist zealots" who may remain on the Politburo.¹⁶ And, in retrospect, it seems inevitable that the Bolsheviks' initial "zealotry" would have been transformed into a new nationalism with deep roots in Russia's past. After all, the Soviet state that emerged in the early 1920s was merely a truncated version of the empire Nicholas II had led into war in 1914, a fact that Stalin tacitly acknowledged when he adopted the slogan Socialism in One Country. As such, the young Soviet republic also inherited its predecessor's geographical vulnerabilities, perceptions of security or insecurity, and many of the policies adopted to deal with them.¹⁷

My discussion here does not give a full examination of the geopolitical challenge that historically has faced Russian rulers. Suffice to say, they have had to overcome the problems posed by poor communications and the vast

expanses of the steppe, and the lack of any easily defensible frontiers. In addition, the military advantages granted to the steppe nomads by the "cavalry revolution" of the seventh century B.C. meant that until the mid-1700s, Russia faced a significant threat from the Pontic Steppe in the form of the Crimean Tatars. Meanwhile the state was constantly threatened from the west by the Poles and Lithuanians, its rivals for control of the steppe frontier, as well as by the Teutonic Knights, the Swedes, and others. As a result, Russian history has been one of almost continual conflict, often in conditions of a technological blockade imposed by its more advanced Western neighbors. Thus most Western scholars incline to Richard Hellie's judgment that the "basic continuous elements of Russian history are the people, the Great Russians, surrounded by real or imagined enemies in a country without suitable natural frontiers and without adequate resources—material and human—for their own defense."¹⁸

In this situation, it is hardly surprising to find that often Russia has taken on the aspect of a garrison state. Further, many of its wars not only have involved the majority of Russian subjects, they have been particularly brutal as well and have demanded sacrifices and casualties unknown to most other European states that have managed to survive the vicissitudes of history. This reality most recently was evident in the some 20,000,000 casualties of the Great Patriotic War, 1941-45. More striking still is that in this struggle, the defense of the city of Leningrad alone cost an estimated 1,650,000 soldiers and civilians, a figure that hardly bears comparison with the 292,100 American military dead of that same period.¹⁹

Those arguing for the defensive nature of Russia's wars and the reality of Russian paranoia quite rightly stress these factors. However, others continue to insist that a "picture of the USSR dominated by anxieties of encirclement . . . would appear to be of our own making."²⁰ Many of those accepting this latter conclusion

also maintain that Russia's wars have been mainly offensive, expansionist, or imperialist in nature. Prominent among scholars making this case have been the great Polish historian Oscar Halecki and, more recently, Richard Pipes. Halecki rejected any "claim that Russia's expansion was nothing but a quest for security." Rather, he saw it as being motivated by its rulers' age-old belief that they were "destined to rule the world as an universal empire."²¹ For his part, Pipes dismisses theories based on "collective paranoia," or on some alleged "national" task of completing Russian unification with the caustic reminder that one does not become the world's largest state simply "by absorbing and repelling invasions." Rather, he points to a "relentless movement outwards" driven by Russia's scarce resources, economic poverty, and rulers' ambitions.²²

Since few ever happily accuse their own nation of outright aggression, Russian scholars—be they imperial or Soviet—naturally have inclined toward a more defensive interpretation of their history. Equally significant, apart from Marxist-influenced revolutionaries *before* 1917, there has been surprisingly little diversity among these civilians or military writers. And since for our purposes, what is important is *Russian* perceptions of the military past that have shaped *their* conceptions of security as well as military culture developed to ensure it, a brief review of these views is in order.

WITH regard to the nature and place of wars in Russia's history, the presentation of S. M. Solov'ev is typical. Writing of the medieval period, he estimated that between 1055 and 1462 his nation suffered 245 "attacks," 200 of which took place between 1240 and 1426; that is, hardly a year passed without an invasion or major raid of some kind.²³ Or as another historian of this period put it: "Each year one waited for an attack, spoke of war."²⁴ Taking a longer view, imperial writers maintained that from 1365 to 1893, their nation

waged war a total of 305 years, which includes the Time of Troubles (1604-1613) when Muscovy nearly disintegrated.²⁵ If one recalls the intervention in China in 1900, the Russo-Japanese War of 1904-05, the years of World War I, Civil War and "foreign intervention" (1914-21), the Manchurian-Soviet border incidents of 1929-39, the Finnish-Russian War (1939-40), and the Great Patriotic War (1941-45), the record since then is hardly more inspiring.

In dealing with their conflicts, many imperial writers, particularly those in the military, tended to cast their interpretations in a heroic mold. Even when expansion was admitted beyond the borders of the Great Russian heartland, it was justified in the best traditions of Victorian Europe. The leading military theorist, G. A. Leer, for example, spoke of his nation's dual "historic" political mission. This consisted of defending the rest of Europe from Asiatic barbarism while simultaneously transmitting European civilization to the less-developed Asiatics, tasks his nation undertook despite the hostility Russia so often encountered from its western neighbors. This mission, in Leer's view, explained why Russia, since the days of Peter the Great, had adopted a defensive stance in the west and an offensive one in the east.²⁶ Further, while the Russians' expansion in the latter direction was justified by their "civilizing" role, even their seemingly offensive struggles in Europe were waged because "Russia's mission is to be liberator of peoples,"²⁷ and especially Orthodox Christians living under Ottoman rule. In this same vein, the *Field Service Regulations* of 27 April 1912, reminded the czar's troops that "a soldier is a warrior of Christ and the Emperor, and that he therefore must conduct himself as a Christ-loving warrior."²⁸ And while such sentiments were to be expected from nationalists and military men, their echo in a Socialist Revolutionary Party's "people's history," published in 1905, is more astonishing. Yet in spite of its pronounced distaste for princes and czars, this pamphlet chronicles Russia's defensive wars in

a manner not unlike the respectable and patriotic Solov'ev.²⁹

Since 1917 many émigré historians, both civilian and military, have continued the tradition of regarding old Russia as essentially a defensive power.³⁰ More surprising is the fact that most Soviet writers have followed suit, both in works aimed at mass audiences and in more scholarly studies. "Over the course of many centuries," wrote one local historian of Russia's north, "the Russian people have maintained the integrity and independence of their homeland in a desperate struggle with foreign invaders."³¹ Or as a publication of the Ministry of Defense recently put it: "The process of putting the Russian state together went on in difficult circumstances. The popular masses of Russia had to wage constant battle with foreign invaders, and with weapons in hand defend the independence of their native land."³² As for the record since 1917, Defense Minister Ustinov himself updated the Russians' view of their historical record in 1983 with the simple statement:

The Soviet Union has never threatened and does not threaten anyone. By speculating on the "Soviet threat" myth, certain groups in the West are trying to distract people's attention away from the real military threat which is created by the U.S. administration and a number of its NATO allies.³³

While such statements could be discounted as being intended for the general Soviet public, the views of recognized Soviet scholars deserve more serious consideration. Thanks to their Marxist-Leninist ideological training, they cannot remain satisfied with such simplistic expressions of patriotism. In analyzing imperial Russian military policies at the end of the nineteenth century, for example, P. A. Zai-onchkovskii is careful to present a mosaic of motives. To this end, he takes "into account absolutism's foreign policy goals, which were not always in their nature purely defensive," and he admits that Russia's preparations for war cannot be explained solely by those of Eu-

rope's other great powers.³⁴ Even so, such admissions come only after he has outlined the mounting armaments programs of his country's possible opponents, particularly that of Germany. A few years earlier L. G. Beskrovnyi, another eminent Soviet military historian, had attempted to confront more directly any apparent internal contradiction between the Marxist-Leninist view of old armies and a patriotic interpretation of Russia's military heritage. He first agreed with Lenin in seeing such an army of an "exploiting" state as having as its first function the repression of the exploited, and only as its second aim "the defense of this state from outside attacks or its own expansion at the expense of neighboring lands." But when he turns to Russia per se, his tone changes sharply. While he accepts that his nation's forces of necessity reflected its general class structure, he nonetheless maintains that it waged war solely to repulse invaders who threatened Russia's political independence and national existence.³⁵

In some ways Beskrovnyi and other Soviet scholars have brought the tradition of Russia's "defensive" conflicts to a new high. He, for instance, tells readers that the "peoples of our country always have tried to live in peace with other peoples." That they have often failed to do so, of course, is thanks to the aggression of "foreign conquerors." Like his imperial predecessors, he also maintains that Russia frequently "saved the world [or Europe] from barbarism and enslavement," to which he adds a claim that his country never "entered battle with pretensions to world dominance (*gospodstvo*)."³⁶ Although these last statements are intended for a mass, domestic audience, similar claims have appeared in the more narrow studies of other scholars. Indeed, the historian G. A. Nekrasov even denies czarist imperialism when he attacked the continuity thesis of Russian expansionism. "As is well known," he wrote, "a basic position of foreign, reactionary historiography is the false thesis of Russia's age-old 'aggressiveness,' of its economic and

political 'expansionism,' and of a 'continuity' between Soviet foreign policy and czarist Russia's 'old expansionist endeavors.' " But he insists that the wars of Peter I, Elizabeth, and Catherine II have been "characterized by most bourgeois historians solely as predatory and aggressive," only because these scholars "do not make the slightest effort to carry through a dialectical analysis of these wars' social-political nature which would reveal their class essence and significance."³⁷ In other words, even Marxism-Leninism can be a tool used to support a view of Russia's military past that in its essentials differs little from that of Leer.

The persistence of this tradition in the Soviet Union, as well as the wide circulation given it in both the scholarly and popular press, attests to its deep roots in the Russians' national psyche. In addition, that discussion raises other points touching on their perceptions of national security. In spite of Nekrasov's anger, many Western scholars obviously *are* willing to accept the validity of seeing, at least in part, a large defensive element in Russian and Soviet policy. In this context, Tibor Szamuely once pointed to the difficulties raised by the fact that Russia's conflicts "do not come within the familiar categories of aggressive and defensive wars, or fall into the snug pigeonholes of just and unjust wars. They can be called neither wars of territorial aggrandizement nor resistance to aggression; neither colonial nor national liberation wars; neither civil nor foreign wars; aimed neither at achieving unification nor at attaining natural frontiers."³⁸ Apart from this, almost all serious students of Russia admit that its history of continuous conflicts has left some mark on its society, and some have even gone so far as to clear Russia, or at least Muscovy, of many charges of "imperialist" aggression.³⁹ In the conditions in which the latter emerged, a "natural reaction to the threats on all sides was to push the enemy farther and farther away" in the search for elusive security.⁴⁰ Others have seen that state's expansion as being largely the result of a slow,

gradual, and spontaneous process of peasant colonization, rather than of official policy.⁴¹ With regard to the later Russian "threat" and westward political expansion, one British scholar has argued that it is "evident how very little outright combat with the Western powers had to do with Russia's territorial gains in Europe" in the 1700s. Noting that "Catherine's realm pushed westwards without resistance," he believes that many feared her empire "more for what it might do than for what it did"—a comment not inapplicable to later periods as well.⁴²

In any case, even if one accepts that Russia's expansion occurred largely through the assimilation and military subjugation of often unstable frontier regions, one can still accept that the frequent invasions launched by others left the Great Russians with deep-seated feelings of suspicion and lack of security. On this basis, for example, a British analyst recently concluded that "insecurity and expansion were not mutually exclusive, but mutually reinforcing."⁴³ Another notes correctly that it "is very obvious, but often forgotten, that Russian fears of the West . . . are far older and more deep-seated than are Western fears of Russia. Russians are more conscious of their own weaknesses than we are."⁴⁴ More often than not, this consciousness (frequently allied to technological backwardness) has been combined with an acute sense of hostile encirclement. In the 1200s, the culprits were the Mongols, Teutonic Knights, and Swedes; in the 1600s, the Poles and Turkish-supported Crimean Tatars; and in the 1920s, the Poles, British, French, and Japanese, who in the late 1930s were replaced by a new coalition of Nazi Germany and Japan. And while the young Soviet state continually worried about a "capitalist encirclement" that sought to strangle the "Socialist Motherland," Stalin as its leader warned that "those who fall behind get beaten. . . . Old Russia's history is one unbroken record of the beatings she suffered for falling behind, for her backwardness."⁴⁵

Russia's almost continuous record of con-

flict, combined with its "relative weakness and vulnerability," has convinced George Kennan that from the beginning, its rulers have been concerned primarily with the "protection of their own rule within Russia and also the security of the Russian heartland."⁴⁶ According to Dimitri K. Simes, the same factors explain as well both a "preoccupation with security that seems excessive to most foreigners,"⁴⁷ and many aspects of military and political cultures developed to gain their aims. With regard to ensuring *bezopasnost'* in their sense, Russian rulers naturally would prefer an "absence of threat" all along their far-flung frontiers. For this reason, the Russian and Soviet leaders have assumed "a need to remove from their immediate periphery any opposition that appears to be getting too strong."⁴⁸ More often than not, however, such a solution is attended by unconscionable risks. The obvious alternative is to have on hand forces that are capable of dealing with all probable foes simultaneously along the state's extensive borders. While this too usually remains the "impossible dream" of Russian defense planners, it still explains their success in obtaining large budgetary allocations. From 1815 to 1850, for example, an average of 37 to 47 percent of the state's annual expenditures went on the military and defense-related items. Between 1862 and 1875, the figure was 30 percent and although it subsequently fell to just over 20 percent, in 1909-10 it rose again to a whopping 43 percent of both regular and supplementary credits. In this light, the 28 to 32 percent spent by the Soviets (according to the CIA) seems hardly as "unprecedented" as some have claimed.⁴⁹

In calculating the balance of power, the Soviets, like their czarist forebears, have sought parity with other great or superpowers while simultaneously endeavoring to preserve a number of interrelated regional balances. It is within this context, for example, that we should view the deployment of SS-20s as replacements for the aging SS-4s and SS-5s. While strategic intercontinental ballistic mis-

siles counter the strategic threat, the SS-20 intermediate-range ballistic missiles—in Soviet eyes—undoubtedly seemed needed to ensure parity with the nuclear assets of China, France, Britain, and the forward-based theater systems of the United States. The same regional calculations explain why today's Ground Forces are deployed close to any future Central European or Far Eastern battlegrounds. With an offensive tactical and operational doctrine, they presumably could move at a moment's notice to meet any threat. While these massive deployments elicited fears in others, they have been traditionally Russian since the 1500s. Then, thanks to distances and poor roads, large Muscovite forces were stationed continually along the southern frontier to block Tatar inroads. In Central Europe, the same factors have led to the deployment of strong field armies along Russia's western borders since the mid-1700s.⁵⁰

There is no need here to outline the numerous other continuities that point to a distinctively Russian military culture. Enough has been said to suggest that as heirs to imperial traditions, Soviet defense planners are bound to be haunted by fears of technological inferiority, geographical vulnerability, and the specter of encirclement, fears that may well be fed by their own suspicious intelligence network.⁵¹ Some argue that since 1978-79, these traditional fears or paranoia have been heightened by the Soviets' perception that they may be facing a new quadruple alliance of the United States, NATO, China, and Japan, and by the fact that the situation along their old southern tier—Iran and Afghanistan—was dangerously unstable. In this situation, NATO's program of tactical nuclear forces modernization and the Reagan administration's subsequent rhetoric and policies must have seemed especially unsettling to the Kremlin's leaders. Similarly, the failure to restore stability in Afghanistan must also trouble them. So paradoxically, just when the Soviet Union at last seemed to be growing in economic strength, and achieving military "parity" with its possible opponents,

new grounds for insecurity arose to rob these gains of much of their value.⁵²

THIS analysis is not meant to justify Moscow's paranoia or Soviet policies. Rather, it argues that such paranoia is real, that it is based on a particular conception of security and history, and that the resulting "military culture" makes certain responses to certain Western policies probable. Some Soviet analysts—including Viktor Girshfeld—may be arguing for a system of "sufficient defense" that would reduce the military burden on the Soviet Union's lagging economy. But as Girshfeld admits, the Soviet "generals are bound to insist that a certain offensive capacity for counterattack be retained,"⁵³ a capability which undoubtedly would still be threatening to neighbors and permit border "interventions" in the sacred name of security and stability. But even such limitations as he suggests seem unlikely in the near-term. Given their history and military culture and the threat they perceive in the Strategic Defense Initiative (SDI), we should expect the Soviets to meet new Western programs with continued high, if not increased, military expenditures in an effort to close the technology gap, maintain high levels of improved conventional forces, and preserve the perceived parity of nuclear forces. In this process, efforts to upgrade "combat readiness" and the institution of strict procedures to ensure the inviolability of Soviet frontiers—the very factors that doomed KAL Flight 007—will probably continue. For the short-term, Western policymakers must accept that they cannot "reeducate" their Soviet counterparts in a new "military culture." Even so, they *can* take greater care to formulate and present their own requirements and policies in such a way as not to increase Moscow's insecurity and paranoia. Otherwise, they only risk further confirming the Soviets in their habit of translating the harsh reality of the Russian past, as they perceive it, into their conception of the present. And if the Soviets' sense of security admittedly depends at a minimum on a

corresponding insecurity among its opponents,³⁴ then the reverse of this axiom is equally true.

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Notes

1. William C. Green and David B. Rivkin, Jr., "Soviet Priorities and KAL Flight 7," *Journal of Defense and Diplomacy*, October 1983, p. 45. The syndicated columnist Charley Reese put this position even more bluntly in "Liberals Never Seem to Learn," *Pensacola Journal*, 5 October 1985, p. 6A.

2. On rumors about and analyses of the PVO's performance, see John F. Burns, "Jet Incident Gives Clues about Russian Military," *New York Times*, 18 September 1983, p. 8, and "The Soviet Military Year in Review 1982-1983," David R. Jones, editor, *Soviet Armed Forces Review Annual 7: 1982-1983* (Gulf Breeze, Florida, 1984), pp. 26-28. For the comments of the delegates in Edinburgh, see Colonel General S. V. Golubev, Air Forces' Deputy Commander-in-Chief for Combat Training, "Soviet Delegate Admits Error in Plane Incident," *New York Times*, 22 September 1983, p. 1E; see John F. Burns, "Soviet Seems to Fault Pilot Who Downed Jet," *New York Times*, 8 January 1984, pp. 1, 6.

3. See John F. Burns, "A Soviet General Implies Airliner Could Be Taken For a Spy Plane," *New York Times*, 5 September 1983, pp. 1, 4; John F. Burns, "Soviet Says Order to Down Jet Came at a Local Level," *ibid.*, 10 September 1983, pp. 1, 4; the transcript of Ogarkov's statement in *ibid.*, pp. 4-5; Serge Schmemmann, "Reaction of Kremlin," *ibid.*, 14 September 1983, p. 4; and P. Kirsanov, "Fakty izoblichaiut Vashington," *Pravda*, 20 September 1983, p. 4. Recently, some Western analysts have been more sympathetic to Moscow's identification of KAL 007's mission as one of espionage; see David Pearson, "KAL 007: What the U.S. Knew and When We Knew It," *The Nation*, 18-25 August 1984, pp. 105-24.

4. Richard Halloran, "U.S. General Calls Soviet's Air Defense Inflexible," *New York Times*, 18 September 1983, p. 7; Burns, "Jet Incident Gives Clues about Russian Military," p. 8; Jones, *op. cit.*, pp. 26-28; and John F. Burns, "Soviet Army in Limelight," *New York Times*, 11 September 1983, pp. 1, 7.

5. P. F. Batitskii, *Voiska Protivovozdushnoi oborony strany* (Moscow, 1977), pp. 62-63.

6. Ivan Chernykh, *Idu na perekhvut* (Moscow, 1973), end paper.

7. *Ibid.*

8. Bernard Gwertzman, "Shultz Confronts Gromyko Directly on Plane Incident," *New York Times*, 9 September 1983, pp. 1, 8; John F. Burns, "Soviet Confident Furor Will Pass," *ibid.*, 12 September 1983, p. 4; and the transcript of Ogarkov's comments in *ibid.*, 10 September 1983, pp. 4-5. The Soviet press response is chronicled in Larry Black, "KAL Disaster and the Soviet Press," *International Perspectives*, January/February 1984, pp. 11-14.

9. Published in *Izvestia*, 26 November 1982, and in English in John L. Scherer, editor, *USSR Facts and Figures Annual 7: 1983* (Gulf Breeze, Florida, 1983), pp. 20-30.

10. Charley Reese in the *Pensacola Journal*, 5 October 1983, p. 6A. Also Green and Rivkin, pp. 44-46.

11. "State Department Official Cites Soviet 'Massive Paranoia,'" *Pensacola Journal*, 5 September 1983, p. 11A. Also see Leslie H. Gelb, "Outrage at Soviet Comes Easier Than Action," *New York Times*, 4 September 1984, p. 1E.

12. Most notably Kenneth Booth, *Strategy and Ethnocentrism* (New York, 1979). For attempts to define the Russian/Soviet "military culture," see Jack L. Synder, *The Soviet Strategic Culture: Implications for Limited Nuclear Options*, Rand R-2154-AF (Santa

Monica, California, September 1977); Robert Legvold, "Strategic Doctrine and SALT: Soviet and American Views," *Survival*, January-February 1979, pp. 8-13; and David R. Jones, "Russian Tradition and Soviet Military Policy," *Current History*, May 1983, pp. 197-200, 230-32, and "Russian Military Traditions and the Soviet Military Establishment," in *The Soviet Union: What Lies Ahead? Military Political Affairs in the 1980s* edited by K. M. Currie and G. Varhall (Washington, 1985), pp. 21-47.

13. "Otvety Ministra oborony SSR Marshala Sovetskogo Soiuzu D. F. Ustinova na voprosy korrespondenta TASS," *Pravda*, 31 July 1983, p. 4.

14. These basic meanings are taken from standard dictionaries such as A. I. Smirnitskii, editor, *Russko-Angliskii slovar*, fourth edition (Moscow 1959), p. 52.

15. Aleksandr Solzhenitsyn, "Misconceptions about Russia Are a Threat to America," *Foreign Affairs*, Spring 1980, pp. 797-98.

16. P. H. Vigor, *The Soviet View of War, Peace and Neutrality* (London and Boston, 1975), pp. 131-33.

17. I have outlined this process in "Continuity and Change in the Russian Military Tradition," *RUSI Journal*, June 1975, pp. 31-32.

18. Richard Hellie, "The Structure of Modern Russian History," *Russian History* (1977), no. 1, p. 11. For an evaluation of the steppe nomad's power, see William H. McNeill, *The Pursuit of Power, Technology, Armed Force, and Society since A.D. 1000* (Chicago, 1982), pp. 15-18, 48-61.

19. On casualty figures, see R. E. and T. N. Dupuy, *The Encyclopedia of Military History from 3500 B.C. to the Present* (New York, 1970), p. 1198.

20. Uri Ra'anana, "The USSR and 'Encirclement' Fear: Soviet Logic or Western Legend," *Strategic Review*, Winter 1980, p. 50.

21. Oscar Halecki, "Imperialism in Slavic and East European History," *Slavic and East European Review* (1952), pp. 1-13.

22. Richard E. Pipes, "Militarism and the Soviet State," *Daedalus: Journal of the American Academy of Arts and Sciences*, Fall 1980, p. 2; Pipes, *Russia under the Old Regime* (London, 1974), p. 118.

23. S. M. Solov'ev, *Istoria Rossii s drevneishikh vremen*, 23 books in 15 volumes (Moscow, 1959-66), vol. 2, no. 4, pp. 514-15.

24. N. Khlebnikov, *O vliiani obshchestva na organizatsiu gosudarstva v tsarskii period russkoi istorii* (St. Petersburg, Russia, 1869), p. 5.

25. Figures cited in V. I. Shaiditskii, editor, *Na sluzhbe Otechestva* (San Francisco, California, 1963), pp. 516-17.

26. G. A. Leer, *Opty' kritiko-istoricheskogo issledovaniia zakonov iskusstva vedeniia voiny: Polozhitel'naiia strategii* (St. Petersburg, Russia, 1869), p. 472.

27. Prince Evgenii Trubetskoi, *Smysl' voiny* (Moscow, 1914), p. 9.

28. This had appeared earlier in General Dragomirov's famous collections of axioms for soldiers; see his *Momento du Soldat* (Paris, 1889), p. 9, and the associated proverbs on pp. 10 and 14.

29. *Razskazy iz russkoi istorii (chast vtoraiia)*, (n.p., 1905), *passim*, but especially pp. 4-10, 29-34, 112-14.

30. A. A. Kersnovskii, *Istoria russkoi armii*, 4 volumes (Belgrade, 1933-39), vol. I, p. 3-8 is typical. Both he and Shaiditskii, pp. 516-17, stress the Orthodox mission of the imperial armed forces. Another émigré author who celebrates the defense of Russia's sacred borders is Pavel Shaposhnikov, "Okhrana granits Rossiiskikh," *Voennnaia byl'*, May 1966, pp. 34-38.

31. K. D. Egorov, *Za russkii sever—iz istoriia osvoeniia russkogo severa i bor'ba s inozemnymi agressorami za severnye morskoe puti* (Murmansk, 1957), p. 7.

32. V. V. Kargalov, *Narod-bogatyr* (Moscow, 1971), p. 3. This theme pervades V. I. Buganov and A. I. Nazarets, editors, *Stranitsy boevogo proshlogo nashei strany (IX-XII vv.)*, (Moscow, 1972), vol. I; I. Rostunov, "The Struggles of the Peoples of Russia against Foreign Invaders (13th-early 19th century)," *Revue Internationale d'Histoire Militaire* (Moscow, 1979), no. 44, pp. 248-63; and numerous other Soviet military histories.

33. "Otvety Ministra oborony . . ." p. 4.
34. P. A. Zaionchkovskii, *Samoderzhavie i russkaia armia na rubezhe XIX-XX stoletii, 1883-1903* (Moscow, 1979), pp. 75-79.
35. L. G. Beskrovnyi, editor, *Stranitsy boevogo proshlogo. Ocherki voennoi istorii Rossii* (Moscow, 1968), pp. 4-6.
36. *Ibid.*, p. 6.
37. G. A. Nekrasov, "Mezhdunarodnoe priznanie rossiiskogo velikoderzhavii v XVIII v.," in *Foedal'naiia Rossia vo vsemirno-istoricheskoi protsesse: Sbornik statei, posviashchennyi L'vu Vladimirovichu Cherepninyu*, edited by V. T. Pashuto et al. (Moscow, 1972), p. 382.
38. Tibor Szamuely, *The Russian Tradition*, edited by Robert Conquest (London, 1974), p. 24.
39. For example, Oswald P. Backuss III, "Was Muscovite Russia Imperialistic?" *Slavic and East European Review*, VII (1948), no. 3, pp. 197-213.
40. Christopher D. Bellamy, "British Views of Russia: Russian Views of Britain," in *Estimating Foreign Military Power*, edited by Philip Towle (London, 1982), p. 44.
41. This is the thesis of the great historian V. O. Kliuchevskii. In his influential *Kurs russkoi istorii* (Moscow, 1937), vol. 1, p. 20, he stated simply that the "history of Russia is the history of a country colonizing itself." This view is adopted by Pipes in "Militarism," pp. 2-3, and *Russian under the Old Regime*, pp. 7-8, 115-16, to provide the impulse for Russian expansionism.
42. Christopher Duffy, *Russia's Military Way to the West. Origins and Nature of Russian Military Power, 1700-1800* (London, 1981), p. 233.
43. David Holloway, "Military Power and Political Purposes in Soviet Policy," *Daedalus: Journal of the American Academy of Arts and Sciences*, Fall 1980, pp. 14-15. Also see comments in Derek Leebaert, "The Context of Soviet Military Thinking," in *Military Thinking*, edited by D. Leebaert (London, 1981), p. 21.
44. Bellamy, p. 42.
45. J. V. Stalin, *Problems of Leninism* (Peking, 1976), p. 528. For an example of early Soviet fears of encirclement, see L. Ivanov, *SSSR i imperialisticheskoe okruzenie* (Moscow, 1928).
46. George F. Kennan, *The Cloud of Danger* (Boston: Little, Brown and Company, 1977), pp. 175-77. Hellie, pp. 14-15, accepts this view with reservations.
47. Dimitri K. Simes, "Militarism in Soviet Society," *International Security*, Winter 1981-1982, pp. 125-26.
48. Leebaert, pp. 20-21; Jones, "Soviet Military Year . . .," pp. 21-22.
49. Jones, "Russian Tradition," p. 198.
50. *Ibid.*, pp. 199, 230-32; "Soviet Military Year . . .," pp. 19-25, presents this argument at greater length.
51. See comment by Lyman B. Kirkpatrick, Jr., the former Inspector General of the CIA, as quoted by Richard F. Starr in Peter Duiganan and Alvin Rabashka, editors, *The United States in the 1980s* (Stanford, California, 1980), p. 740.
52. Leebaert, p. 20; Helmut Sonnenfeldt, "The Soviet Challenge," in *Setting National Priorities: Agenda for the Eighties*, J. A. Pechman, editor (Washington, 1980); W. G. Hyland, "The Sino-Soviet Security Conflict: A Search for New Security Strategies," *Strategic Review*, Fall 1978.
53. Stephen Shenfield, "The USSR: Viktor Girshfeld and the Concept of 'Sufficient Defense'," *ADIU Report*, January-February 1984, no. 1, p. 10.
54. Leebaert, p. 21.

LAUNCH ON WARNING IN SOVIET NUCLEAR STRATEGY

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QUESTIONS of nuclear strategy occupy the key position in national security policy today. The Soviet deployment of SS-20 intermediate-range ballistic missiles (IRBMs) targeted against Western Europe and their continued buildup of accurate intercontinental ballistic missiles (ICBMs), which place the survivability of the Minuteman silos in jeopardy, has confronted the West

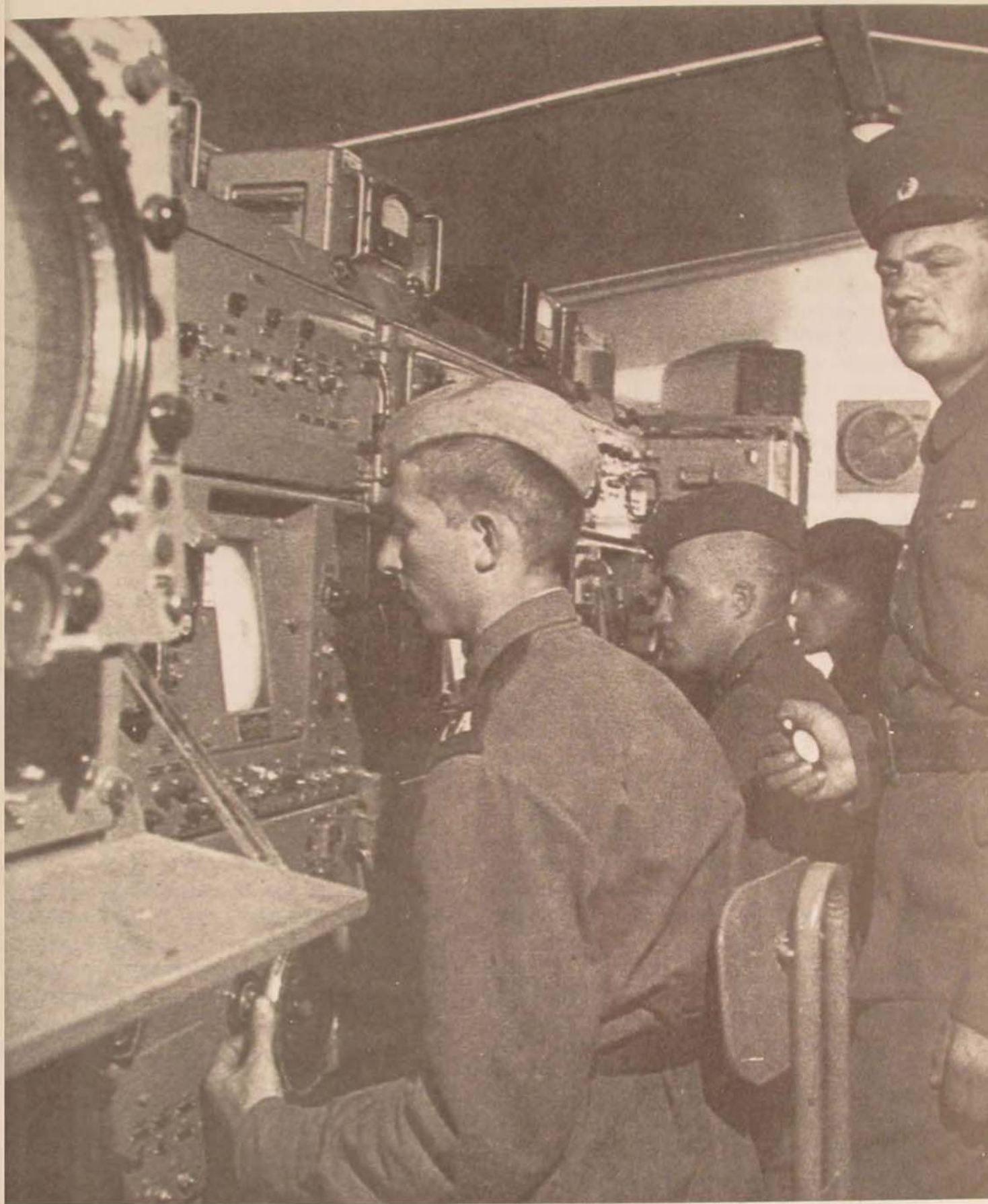


with crucial questions concerning nuclear forces and doctrine. One possible solution to the growing vulnerability of the U.S. land-based ICBM force would be to adopt the strategy of launch on warning (LOW),¹ in which the weapons at risk would be fired once it is confirmed that the enemy has fired a first strike. The U.S. response to the SS-20s in Europe was the deployment of Pershing II and ground launched cruise missiles (GLCMs) in NATO countries. Moscow has protested this move vehemently, particularly the stationing of Pershing IIs within short striking distance of the Soviet Union. Some Western observers feel that this deployment may force the Soviets to adopt a LOW strategy.

Launch on warning has always been viewed as a pariah in the United States because of the potential for erroneous indications in the warning system that could lead to the accidental start of a nuclear war. The much-publicized false alerts generated by the U.S. Air Defense Command computers in 1979 and 1980 exacerbated this feeling. U.S. policy has always been to maintain forces with the survivability to absorb a first strike and still retain the capability to deliver a devastating counterattack upon the enemy.² Soviet policy is not enunciated in public, so it must be interpreted from statements, writings, capabilities, and practices. The Soviets have not made any clear declarations of intention concerning a LOW posture. Nevertheless, it is important to attempt to discern how the Soviets regard launch on warning because of the implications for nuclear strategy.

Soviet Strategy for Nuclear War

Soviet attitudes toward LOW cannot be isolated from their overall strategy for nuclear war; an examination of the general doctrine will lay the groundwork for consideration of specific postures. Much has been written in recent years concerning the Soviet adoption of a warfighting approach to nuclear strategy as opposed to a deterrence posture which has been



the cornerstone of U.S. defense policy for the past three decades. The goal of this doctrine, which has been elaborated by the Soviet leadership at the various Congresses of the Communist Party of the Soviet Union and developed more eloquently in the major works *Military Strategy* and *Scientific-Technical Progress and the Revolution in Military Affairs*, is not merely to prevent a nuclear war but to be prepared to achieve victory in one. Soviet Major General M. I. Cherednichenko emphasized that his nation was "compelled to prepare our Armed Forces, country, and all the people for a struggle with an aggressor, first of all and primarily under conditions of a nuclear war."³

There are several key principles that make up Soviet doctrine. First, while war is not inevitable, the nature of the imperialist nations make conflict with the socialist countries likely. While the Soviets have vacillated through the years on the question of whether a war would automatically start with or escalate to a general nuclear exchange, they generally feel that a major confrontation would quickly become worldwide and be fought with nuclear missiles: "A world war, if it were unleashed by an imperialist aggressor, would undoubtedly take on the character of a nuclear missile war."⁴ Second, in such a war, the initial period would be crucial, if not decisive: "Therefore, the initial period of a present-day nuclear rocket war will obviously be the main and decisive period and will predetermine the development and the outcome of the entire war."⁵ Finally, because of the importance of the initial period, surprise has become a key factor in modern warfare:

Surprise nuclear attacks are capable of changing the correlation of forces⁶ sharply in short periods of time and thereby exerting a decisive influence on the course and even the outcome of military operations.⁷

It follows logically then that the main goal of Soviet strategy is to avoid a surprise nuclear attack. Marshal V. D. Sokolovskiy confirms this in *Soviet Military Strategy*: "In this regard the main problem is the development of meth-

ods for reliably repelling a surprise nuclear attack."⁸

Avoiding Surprise

There are three ways to escape the consequences of a surprise nuclear strike. The first is to surprise the enemy before he can surprise you, i.e., to strike his forces preemptively once you feel that he intends to launch an attack upon you. The second is to develop defenses that are strong enough to negate the effects of a surprise attack. The third is to launch on warning, firing your missiles once those of the enemy are in the air. All three methods are part of Soviet strategy, although the emphasis has shifted over time in accordance with changing technological capabilities.

Much has been written concerning the tendency toward preemptive strike in Soviet strategy.⁹ The Soviets have never stated their intention to use a preemptive strike; however, if they believe that any war would automatically become a general nuclear war and if a surprise attack holds the key to success in such a war, then it follows that they would attempt to execute such an attack as a means of achieving their goal of victory. The Soviets generally expect a period of tension to precede the outbreak of war and believe they would detect any preparation for war being undertaken by the West. Should they detect such preparations, they would most likely use the preemptive strike to attain surprise and seize the initiative.¹⁰ In this vein, the Soviets often write of "frustrating the intentions of the enemy" and "thwarting of the aggressor's surprise attack." The only way to do this is to destroy the enemy's weapons before they can attack you. Thus, Sokolovskiy writes that in addition to repelling a surprise nuclear attack, the Soviets must develop "methods of frustrating the aggressive designs of the enemy by the timely infliction of a shattering attack upon him."¹¹ A. A. Grechko, then the Minister of Defense, stated in *Scientific-Technical Progress and the Revolution in Military Affairs*

that "the Armed Forces should be able under any conditions to thwart a surprise attack by the aggressor . . . and by rapid crushing strikes defeat his basic nuclear missile weapons."¹²

Soviet doctrine recognizes that it may not be possible to beat the enemy to the punch, and in fact they may be taken by surprise: "The capabilities for detecting an attack being prepared are sharply decreased at the present time and the probability of achieving surprise is increased."¹³ If the Soviets are surprised, the key is to minimize the damage: "Countering surprise boils down to ensuring that one is not taken by surprise; if this attempt is unsuccessful then it is essential to reduce to a minimum the consequences of surprise, to neutralize them in a prompt manner."¹⁴ The Soviet emphasis on defense against nuclear attack is well documented.¹⁵ Sokolovskiy noted:

An extremely important type of strategic operation is the protection to territory of the country from nuclear attacks by the enemy, using PVO, PRO, and PKO. Without the effective conduct of these operations, successful conduct of a modern war and assurance of the normal vital activities of the country are impossible.¹⁶

The Soviets have made massive expenditures on their air defense network and are constantly upgrading it. They deployed and continue to maintain an antiballistic missile (ABM) system, have been pursuing research and development in this area, and have also developed a massive civil defense system throughout the country. Missile silos and launch facilities have been extensively hardened, particularly those of the latest generation of ICBMs;¹⁷ this upgrading indicates that the Soviets perceive the need for ensuring the survivability of their strategic forces should they be the recipient of an attack.

The third option is launch on warning. Another former Minister of Defense, R. Y. Malinovskiy is credited with describing this posture as "a poor second best" to a Soviet surprise first strike.¹⁸ Nevertheless, this concept has been present in Soviet doctrine for some time. In

1967, Marshal Nikolai K. Krylov, then head of the Strategic Rocket Forces, wrote in the journal *Military Thought*:

With the presence in the armament of troops of launchers and missiles which are completely ready for operation, as well as systems for detecting enemy missile launches and other types of reconnaissance, an aggressor is no longer able suddenly to destroy the missiles before their launch on the territory of the country against which the aggression is committed. They will have time during the flight of the missiles of the aggressor to leave their launchers and inflict a retaliatory strike against the enemy.¹⁹

Other articles reinforce this statement of intention. One, titled "Determining the Correlation of Forces in Terms of Nuclear Weapons," notes that the ability to neutralize missiles before they can be launched is critical, and a combatant must be able to save his weapons from such destruction if he is to survive.²⁰ The emphasis is on launching the missiles before they can be destroyed in the silos. Another article titled "Modern War and Surprise Attack" echoes Krylov's position in stating that modern reconnaissance will detect the launch of a first strike and ensure "the immediate infliction of a destructive retaliatory strike."²¹ In fact, the Soviets consider the concept of restraint during a nuclear exchange to be illogical. Commenting on U.S. debate over ICBM vulnerability, Mikhail Milshtein, a member of the Soviet Institute for the Study of the United States and Canada, noted that "it is inconceivable to me that any government would wait to see if the incoming warheads were only aimed at silos or were part of an all-out attack. . . . It would be all-out war."²²

Like strategic defense, LOW requires specific capabilities to be executed successfully. Among these are means for immediate detection of an enemy strike, a responsive command and control system to reach a decision and transmit it to the operating forces, and nuclear forces in a state of readiness to execute a strike on short notice. Soviet doctrine recognizes the need for these capabilities and has made readi-

ness one of the main goals for its armed forces. Marshal N. V. Ogarkov, former Chief of the General Staff, writes:

A most important point of the military-technical content of Soviet military doctrine, dictated by the rapid development of nuclear missile weapons and the possibility of a surprise attack by the enemy employing these weapons, is the demand that the USSR Armed Forces be maintained at a high state of combat readiness, ensuring their prompt and expeditious deployment in order to repulse an enemy sneak attack, to deliver powerful response strikes on the enemy.²³

An article on the development of military art noted that the importance of constant readiness of missile guidance systems and continuous early warning operations is stressed in Soviet strategy.²⁴ The previously cited article on correlation of forces stresses the importance of an automated control system,²⁵ and Ogarkov stated that readiness is enhanced by the automated firing procedures of modern missiles.²⁶

It is important to note that the Soviet concept of LOW is fundamentally different from that which is normally associated with this type of concept in the West. Most Western military experts regard LOW as an act of desperation, a throwback to the days of "massive retaliation" where missiles would be hurriedly launched in an effort to save them from destruction. The lack of flexibility to respond to varying situations is one primary reason for U.S. rejection of a LOW strategy.

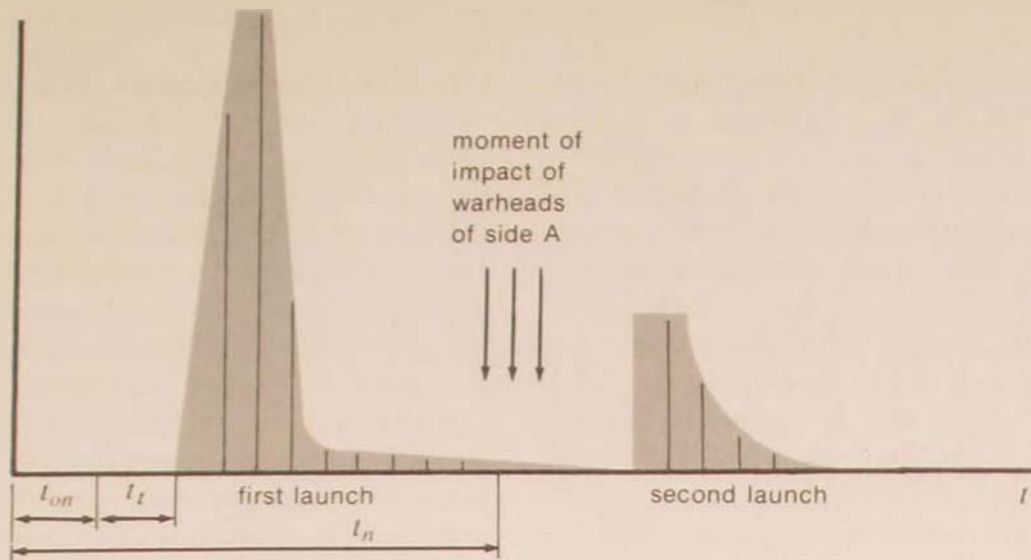
In contrast, the Soviet LOW is a controlled, measured response to the outbreak of nuclear war. Soviet doctrine consistently maintains that even though the initial phase of the war will be crucial, a single strike will not be sufficient to ensure victory: "A battle, an operation, and even more, a war cannot be reduced to one act of destruction of the enemy; they must be planned in any event as a series of consecutive strikes, each of which is different in its nature."²⁷ Flexibility and responsiveness are emphasized to ensure "the probability of a correct response."²⁸ It is necessary to continually evaluate and update the estimate of the situation to

determine the next moves:

Besides this, the indicated objectives should be examined and classified by the degree of their danger for the attacker. Thus, the launch position from which 10 minutes ago a strategic rocket was launched does not represent an immediate threat, since the firing of another missile requires a certain period of time.²⁹

Clearly, a massive launch of all available ICBMs in desperation does not fit the Soviet scheme for fighting a nuclear war. Figure 1 provides confirmation of this, and it also depicts a Soviet response to a U.S. first strike. A large number of Soviet missiles would be launched on warning, indicating again that as early as 1970 launch on warning was an integral part of their strategy. However, a significant quantity would also be retained to ride out the U.S. strike and formulate the nucleus of the next response.³⁰ The continuing emphasis on hardening of missile silos and launch complexes illustrates that the Soviets intend to have forces that can survive the effects of a first strike and be available for follow-on attacks. Thus, in the Soviet mind, the LOW concept is a flexible strategy that would guide the initial thrust of war, laying the foundation for the future conduct of operations. This perception differs significantly from the view of LOW in the West where it tends to be seen as an irrational act of desperation.

Thus, it appears that Soviet doctrine recognizes three methods of avoiding surprise attack as legitimate strategies depending on the situation. Launch on warning would be an appropriate response should the enemy attempt to launch a surprise first strike. But while the Soviets have assembled the forces necessary for a preemptive first strike and for defense of the Soviet Union against a surprise nuclear attack, their capability to execute LOW is much less evident. Although doctrine expresses the intention to employ a LOW strategy, without the capability, that strategy could hardly be seriously considered. The question of the capability to perform LOW must also be examined.



Source: V. I. Varfolomeyev and M. I. Kopytov, "Design and Testing of Ballistic Missiles—USSR," (Washington, D.C.: Joint Publications Research Service, 19 November 1970), p. 305.

Richard Garwin has identified seven requirements necessary to have the capability to execute the LOW strategy.³¹ While information regarding the detailed capabilities of Soviet strategic forces is limited, from the data that are available, it appears that until recently, the Soviets were deficient in at least three key areas: sensors to detect enemy launchings, adequate warning time, and rapid response in missiles. However, improvements over the past few years may have corrected these deficiencies and resulted in an increasingly viable ability to exercise the LOW option.

The first Soviet early warning system was the Hen House radar net located near the borders of the Soviet Union. This system is associated with the Soviet ABM system which was developed in the late 1960s.³² Assuming capabilities equivalent to the U.S. ballistic missile early warning system (BMEWS) of the same time period (a generous assumption considering the U.S. advantage in electronics), the Hen House net would have provided fifteen to twenty minutes warning.³³ The limited time available would strain the capability of any command

and control system to confirm the information, pass it to the decisionmakers, allow the decisionmakers time to reach a decision, and communicate that decision to the operating forces in time to execute a launch before the arrival of the incoming attack. In addition, like the BMEWS, the Hen House system has gaps in its coverage and may have similar reliability problems.³⁴ The Soviets have since built an over-the-horizon radar system that would correct some of the deficiencies of the Hen House system.³⁵ Nevertheless, until the Soviets developed and deployed an early warning satellite, their system still lacked the dual phenomenology capability in which two independent sensors provide separate warning and, therefore, confirmation of an attack. It is questionable whether the cautious Soviet leadership would have based their nuclear strategy on input from a single warning source.

The Soviets apparently began developing early warning satellites much later than the United States. While the United States embarked on the Midas program in the early 1960s, it is only recently that a launch detection

satellite system has been developed by the U.S.S.R. Cosmos 775, launched in October 1975, was their first early warning satellite in geosynchronous orbit.³⁶ The period 1979-81 saw a flurry of early warning satellite launches, indicating a major push toward achieving an operational system, probably resembling the U.S. Defense Support Program.³⁷ Again, if comparable to its U.S. equivalent, the Soviet launch detection satellite system would provide about thirty minutes warning.³⁸ At the same time, the Soviets have also begun constructing a network of new phased-array radars near their borders which would significantly enhance the existing radar coverage.³⁹ Thus, since the early 1970s, the Soviets have significantly improved their early warning system; with the latest additions of launch detection satellites and phased-array radars, their capability to execute the LOW strategy will have improved immensely, since their ability to detect launches has been enhanced and the warning time increased.

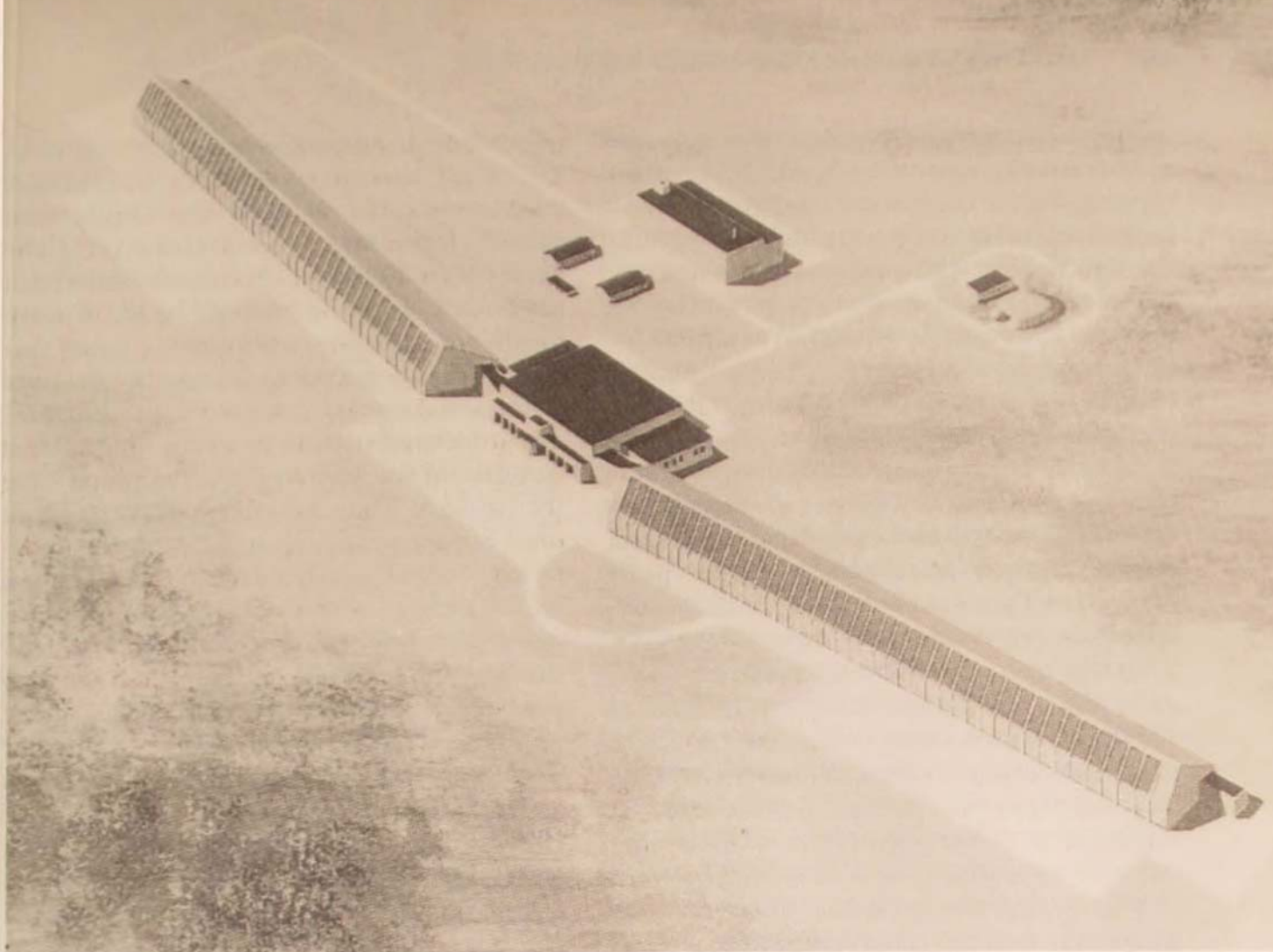
The remaining shortcoming in the Soviet ability to execute launch on warning in the past was based on the inability to maintain their missile forces in a high state of readiness. It was generally recognized in the mid-1970s that the Strategic Rocket Forces maintained a much lower level of readiness than the U.S. missile forces.⁴⁰ This low level of readiness may have been due in part to a Soviet belief that any hostilities would be preceded by a period of tension which would allow the gradual increase in readiness levels, but it is possible that the low alert rate was a result of technical constraints. For example, the limited operational lifetime of earlier Soviet guidance systems may have precluded the maintenance of high alert rates.⁴¹ The latest generation of Soviet ICBMs have more advanced guidance systems, and the Strategic Rocket Forces are currently capable of maintaining high alert levels.⁴²

Thus, until recently, the Soviets possessed only a limited capability to carry out the LOW strategy. Their early warning system did not

permit adequate response time and lacked the redundancy necessary to confirm an attack, while the low-missile-readiness level precluded the rapid response necessary for LOW. The deployment of new radar systems and launch detection satellites has corrected deficiencies in the warning system while missile readiness has improved. The Soviets now have the capability to execute the LOW strategy with confidence.

There has been a shift in the emphasis placed on LOW in Soviet strategy during the past few years.⁴³ Very subtle indications of this shift appear in Soviet writings and pronouncements on the subject; the only indication being a more frequent mentioning of retaliation as opposed to discussions that imply a preemptive posture. However, where operational tendencies are concerned, it has been noted that "the Soviets practice launching weapons under the stringent time constraints that would prevail under hypothetical launch-under-attack circumstances"⁴⁴ and exercise their ICBM force under conditions that are in some respects more stringent than those for U.S. missile exercises.⁴⁵ While exercises do not necessarily reflect actual responses (the United States practices launching missiles under stringent time constraints too), historically, Soviet military exercises have rigidly adhered to the prevailing doctrine.

The greater importance placed on LOW is probably due to two causes. First, the achievement of a viable capability to execute the strategy was a necessary prerequisite to serious consideration of the LOW option. Once they acquired the capability, the Soviets could endorse the strategy with increasing confidence. Second, Soviet assessment of the shift in the balance of forces to the point where they achieved strategic parity with the United States probably reduced the need for a preemptive stance. Rough equality meant that the U.S. capability to launch a successful surprise attack would be reduced; thus, the United States would probably be less likely to initiate such an attack and the pressure to preempt would be reduced accordingly. At



There are eleven Hen House ballistic missile early warning radars in the Soviet antiballistic missile system. These radars, which have been recently upgraded, can distinguish the size of an incoming attack and provide tracking data.

the same time, the impending development of U.S. strategic systems that could destroy land-based ICBMs made the defensive option more dangerous. Thus, the LOW strategy offered an acceptable middle course. While preemption and strategic defense remain integral parts of Soviet nuclear thought, there are indications that launch on warning has now assumed an equal or slightly favored role.

The recognition of LOW as a viable option is not new. A comparison of statements from the mid-1960s and early 1980s shows very little variation in content:

With modern means of reconnaissance, early de-

tection, warning and control, should an aggressor succeed in putting the chief means of destruction into operation . . . an immediate retaliatory strike of immense destructive power is inevitable.¹⁶

Fourteen years later, then Minister of Defense Dimitri Ustinov said in a similar vein:

The aggressor, too should know that the preemptive use of nuclear weapons would not insure victory. With modern detection systems and the combat readiness of the Soviet Union's strategic nuclear forces, the United States would not be able to deal a crippling blow to the socialist countries. The aggressor will not be able to evade an all-crushing retaliatory strike.¹⁷

Attempts by Western analysts to imply that LOW is a new element in Soviet policy reflect an ignorance of long-standing doctrine and strategy for nuclear war. What is new is the emphasis on *retaliation* ahead of the concepts of "thwarting a surprise attack" and "frustrat-

ing the aggressive designs of the enemy."

This development may be reflective of increasing Soviet confidence in their ability to launch their ICBMs on warning; this, in turn, has resulted in the deemphasis of the preemptive strategy. Indeed, the Soviet Union renounced the first use of nuclear weapons for the first time on 15 June 1982.⁴⁸ This indicates that LOW may have achieved a higher priority than preemptive first strike in the Soviet hierarchy of nuclear options. This shift would also reinforce an apparent tendency in recent Soviet thought to recognize the potential to conduct warfare at various levels (conventional, limited nuclear, and general nuclear) without inevitably escalating to the next highest level. The Soviets perceive that the correlation of forces, particularly strategic nuclear forces, is shifting decidedly in their favor; the pressure to strike preemptively is probably less than it was in the past since they now believe they can conduct warfare at any level and prevail. The development of an effective capability to execute a LOW strategy ensures that they can avoid the consequences of a surprise attack without hav-

ing to launch a preemptive strike.

The significance of the shift in emphasis from preemption to LOW has largely been missed in the West. The Western press and some military analysts regard statements from the Soviet leadership concerning LOW as indicative of the adoption of a new strategy that the West considers to be a dangerous escalation in the arms race. For example, the 17 May 1983 pronouncement by the president of the Soviet Academy of Sciences, Anatoly Alexandrov, that the firing of medium-range nuclear weapons from Europe would result in "automatic retaliation, with all available means, at all targets on the territories of all potential opponents" was reported as "the most explicit threat so far that Moscow would adopt a launch-on-warning posture."⁴⁹ As with the Ustinov statement, Alexandrov's threat of "automatic retaliation" was nothing new; it was merely a restatement of a well-defined Soviet policy. If anything, the United States should have felt somewhat relieved that the Soviets were relaxing their grip on the nuclear trigger somewhat by backing away from preemption. The Soviets were aware of the mistrust of warning systems and paranoia over the LOW option in the West; they were undoubtedly attempting to exploit this situation. By hinting at their position publicly, the Soviets hoped to arouse fear in the West and slow the deployment of intermediate-range missiles in Europe and the development of the MX.

The real danger in deploying the Pershing II and MX missiles is not in pushing the Soviets into a LOW strategy but in pushing them back into a preemptive posture. As defense analyst John Steinbrunner has pointed out: "from a Soviet military perspective, the deployment of US intermediate-range missiles in Europe is a significant new dimension of strategic threat.

The United States deployed Pershing II missiles to Europe in response to the Soviet deployment of SS-20s. Pershings are highly accurate but vulnerable and, from the Soviet viewpoint, propitious only for a first strike.



The presumed target of these new weapons . . . is the central command system of the Soviet Union, concentrated around Moscow and in the Western part of the Soviet Union."⁵⁰ The Soviets consider this one way in which the West might try to achieve surprise in a general war:

It is possible that it is not the intercontinental missiles which will be launched first, but the operational-tactical missiles. . . as a means which is closer to enemy objectives, they can be used above all for a strike against antimissile and anti-air defense means and control posts in order from the very beginning to deprive the state subjected to attack of the capability of defense.⁵¹

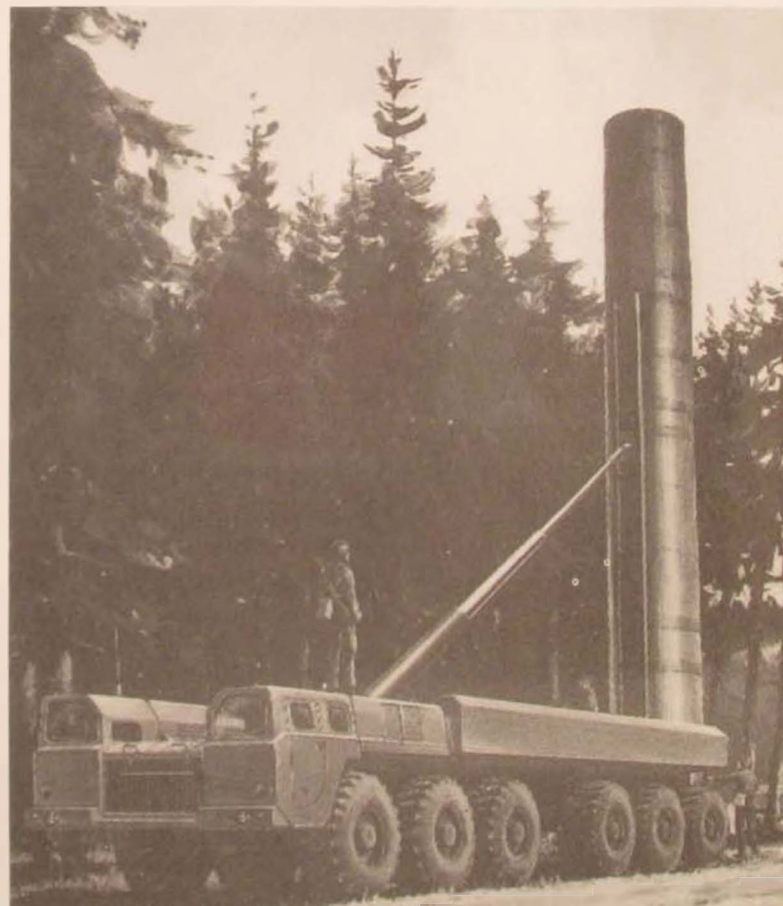
The increased capability of the Pershing II over past tactical systems makes it a strategic weapon in Soviet eyes. The improved accuracy and decreased warning time available to react increases the pressure on the Soviets for preemption. Raymond Garthoff has noted that one of the specific concerns Soviet commentators (in particular, Ogarkov) have raised is that the short flight time of the Pershing would not allow sufficient time to exercise the LOW option before critical command and control targets would be attacked and destroyed.⁵²

The same is true for the MX. The potential lethality of this system as a hard-target killer will again place a premium on launching a first strike, particularly if the MX is deployed in a vulnerable basing mode. The attractiveness of the target and the destructive potential it represents may push the Soviets back toward preemption. In addition, they can be expected to continue to improve their LOW capability, as the penalty for not launching on warning goes up appreciably with the MX and Pershing II operational.

ONE of the primary themes of Soviet doctrine for nuclear war has been the avoidance of surprise attack. Launch on warn-

ing is one way of neutralizing surprise. It began to assume increasing importance in Soviet nuclear thought when the Soviets deployed an improved early warning system and missiles that could be maintained in a high state of readiness. The Soviets have not recently moved to LOW as a result of the deployment of intermediate-range nuclear missiles in Europe or the development of the MX ICBM. The danger in these moves is not that the Soviets will adopt LOW but that it might push them back toward preemption.

The Soviet utilization of LOW results in two key implications for U.S. nuclear strategy. The first is that U.S. and Soviet perceptions of what constitutes a stable nuclear posture are different. The United States has always felt that the use of nuclear weapons would be a last resort; its posture of "riding out" a nuclear attack provides maximum protection against accidental or premature firing of strategic systems. In contrast, the Soviets believe that in a crisis or conflict, its adversaries would quickly resort to nuclear weapons; the principal threat for them has been from a surprise first strike. As a result,



Mobile SS-20s, like the one depicted at the right, do not require fixed sites to support launching.

their posture has been less restrictive, employing LOW and preemption as the primary options. The possibility of achieving stability as defined by U.S. strategists is therefore remote. We must accept the fact that as long as both sides have nuclear weapons, there will be strategies to employ them and that the Soviet strategy for employing them will always be less restrictive than we would like.

The second implication is that strategic decisions cannot be made in a vacuum. Security in the nuclear age depends primarily on psychological perceptions of relative strength and vulnerability. Any change in type, quality, quantity, or employment of strategic weapons will change these perceptions. Moves intended to enhance the security of one side may pose a new and ominous threat to the other, triggering a destabilizing response. The potential reaction of the other side must be weighed against perceived gains in considering any changes in weaponry or force posture. Ultimately, security concerns may outweigh the consequences of any potential response. This would appear to be the situation in the case of both the Pershing II and MX, where a strong case exists for the deployment of both systems, regardless of any Soviet countermoves. How-

ever, we must anticipate any potential responses and be prepared to cope with them.

The United States has lived with a Soviet preemptive nuclear strategy in the past and can do so in the future. A LOW posture would be preferable but only by a matter of degrees. We must be aware of the current Soviet posture and alert for apparent changes or shifts toward preemption. Either strategy requires the United States to take a cautious approach during a strategic crisis, knowing that the Soviets have their fingers a little closer to the trigger than we do. However, caution during crises in the nuclear age should be standard operating procedure; neither LOW or preemption would require any other significant change in strategy or posture. We must also be aware of Soviet attempts to play on Western fears of the LOW and preemptive strategies. They have and will continue trying to manipulate public opinion against U.S. nuclear strategy by portraying the United States as the aggressor while denying their own positions. Such attempts will have to be met with clear descriptions of actual Soviet posture and firm resolve to carry through with programs essential for U.S. and Western security.

Washington, D.C.

Notes

1. The two terms used to describe the firing of missiles in response to an anticipated or actual initiation of attack by an adversary are *launch on warning* (LOW) and *launch under attack* (LUA). Technically, LOW could require an attack once indications of an impending attack were received whether or not the missiles had actually been fired, whereas LUA describes only the situation in which it was confirmed that missiles had actually been fired. Since LOW is the more commonly used term, for the purposes of this article, LOW will be utilized to describe the initiation of an attack in response to actual missile launchings by an enemy.

2. Caspar A. Weinberger, *DOD Annual Report to Congress FY 1984* (Washington: Government Printing Office, 1983), p. 34.

3. Major General M. I. Cherednichenko, "On Features in the Development of Military Art in the Postwar Period," *Military Historical Thought*, June 1970, in *Selected Soviet Military Writings, 1970-75* (Washington: Government Printing Office, 1977), p. 121.

4. *Ibid.*

5. Marshal of the Soviet Union V. D. Sokolovskiy, *Soviet Military Strategy*, translated by Harriet East Scott (New York: Crane, Russak, and Company, 1968), p. 205.

6. The "correlation of forces" is a Soviet concept of evaluating the

relative military strengths of two or more adversaries. The correlation of forces will determine the outcome of a military action; therefore, factors affecting this balance assume primary importance and influence any Soviet course of action.

7. Major General S. A. Tyushkevich, "The Methodology for the Correlation of Forces in War," *Military Thought*, June 1969, in *Selected Readings from Military Thought, 1963-73* (Washington: Government Printing Office, 1982), p. 69.

8. Sokolovskiy, p. 210.

9. Joseph D. Douglass and Amoretta M. Hoeber, *Soviet Strategy for Nuclear War* (Stanford, California: Hoover Institute Press, 1979), pp. 98-107; Robert P. Berman and John C. Baker, *Soviet Strategic Forces: Requirements and Responses* (Washington: Brookings Institution, 1982), p. 36.

10. Douglass and Hoeber, pp. 103-5; Berman and Baker, p. 37.

11. Sokolovskiy, p. 210.

12. General N. A. Lomov, *Scientific-Technical Progress and the Revolution in Military Affairs* (Washington: Government Printing Office, 1973), p. 159.

13. Major General N. D. Vasendin and Colonel N. Kuznetsov, "Modern Warfare and Surprise Attack," *Military Thought*, June 1968, in *Selected Readings from Military Thought*, p. 226.

14. Colonel D. L. Kuleszynski, "Some Problems of Surprise in Warfare," *Military Thought*, May 1971, in *Selected Readings from Military Thought*, p. 89.
15. Berman and Baker, pp. 142-53; Department of Defense, *Soviet Military Power* (Washington: Government Printing Office, 1983), pp. 27-31.
16. Sokolovskiy, p. 284. PVO, PRO, and PKO are acronyms for the Soviet terms describing anti-air, antimissile, and antispace defense.
17. The earlier SS-9 and SS-11 silos were hardened to withstand 1000 psi overpressure. The silos for SS-17, 18, and 19 missiles are hardened to 2500-4000 psi. Roger D. Speed, *Strategic Deterrence in the 1980s* (Stanford, California: Hoover Institute Press, 1979), p. 142; *Soviet Military Power* (1983), pp. 16, 21.
18. Douglass and Hoerber, p. 16.
19. Leon Sloss and Stanley Kober, "Russian's Pershing Ploy," *Washington Post*, 25 January 1983, p. 13.
20. Major General S. I. Anureyev, "Determining the Correlation of Forces in Terms of Nuclear Weapons," *Military Thought*, August 1968, in *Selected Readings from Military Thought*, vol. 5, part 1, p. 167.
21. Vasendin and Kuznetsov, p. 226.
22. *Time*, "The Vulnerability Factor," 31 August 1981, p. 16.
23. Marshal N. V. Ogarkov, *Always in Readiness to Defend the Homeland*, translated by Joint Publications Research Service, JPRS L-10412 (Washington: JPRS, 25 March 1982), p. 42.
24. Cherednichenko, p. 121.
25. Anureyev, p. 167.
26. Ogarkov, p. 35.
27. Major General V. Prokhorov, "Principles of Troop Control in the Light of Requirements of Cybernetics," *Military Thought*, May 1968, in Douglass and Hoerber, p. 48.
28. Anureyev, p. 169.
29. Major General K. M. Dzhelavkov, "The Infliction of Deep Strikes," *Military Thought*, February 1966, in *Selected Readings from Military Thought*, vol. 5, part 1, p. 110.
30. Douglass and Hoerber, pp. 47-52.
31. Richard L. Garwin, "Launch under Attack to Redress Minuteman Vulnerability," *International Security*, Winter 1979-80, pp. 118-19.
32. *Soviet Military Power*, p. 27; Institute for Foreign Policy Analysis, *The Soviet Union and Ballistic Missile Defense: A Con-ference Report* (Cambridge, Massachusetts: 1980), p. 55.
33. Albert C. Hall, "The Case for an Improved ICBM," *Astronautics and Aeronautics*, February 1977, p. 28.
34. *Soviet Military Power*, p. 27; General James V. Hartinger, "The Resurgence of Strategic Defense," *Defense* #2, June 1982, p. 31.
35. *Soviet Military Power*, p. 27.
36. "Washington Roundup—Soviet Big Bird," *Aviation Week and Space Technology*, 17 November 1975, p. 13.
37. "Soviet Military Programs in Space Move Forward," *Aviation Week and Space Technology*, 8 March 1982, p. 106.
38. Hall, p. 28.
39. *Soviet Military Power*, p. 27.
40. Berman and Baker, p. 36; U.S. Congress, Joint Economic Committee, Subcommittee on Priorities and Economics in Government, *Allocation of Resources in the Soviet Union and China—1978*, Hearings, 95th Congress, 2d Session (Washington: Government Printing Office, 1978), p. 67; Joseph J. Kruzel, "Military Alerts and Diplomatic Signals," in *The Limits of Intervention*, edited by Ellen P. Stern (Beverly Hills, California: Sage Publications, 1977), p. 87.
41. Berman and Baker, p. 88.
42. *Ibid.*, p. 15.
43. Raymond L. Garthoff, "The Soviet SS-20 Decision," *Survival*, Fall 1983, p. 116.
44. *Soviet Military Power*, p. 16.
45. *Allocation of Resources in the Soviet Union and China—1978*, p. 118.
46. Vasendin and Kuznetsov, p. 227.
47. Serge Schmemmann, "Arms Policies Questioned within the Soviet Union," *New York Times*, 13 July 1982, p. 3.
48. Bernard D. Nossiter, "Soviet Forswears Using A-Arms First," *New York Times*, 16 June 1982, p. 1.
49. *Washington Post*, "Soviet Warns of Automatic Retaliation against New US Missiles," 18 May 1983, p. 12.
50. John Steinbrunner, "Arms and the Art of Compromise," *Brookings Review*, Summer 1983, p. 9.
51. Vasendin and Kuznetsov, p. 229.
52. Garthoff, p. 116. The Soviets hold that the Pershing II has the range to reach Moscow and the strategic targets located around it, despite the U.S. and NATO contentions that the missile's range is limited to theater targets.



THE STRATEGY OF THE INDIRECT APPROACH APPLIED TO NATO

LIEUTENANT COLONEL WILLIAM J. DALECKY

FOR nearly twenty years, war in Europe has been deterred by the North Atlantic Treaty Organization's (NATO) strategy

of flexible response. Flexible response means NATO forces must be able to conduct conventional, theater nuclear, and strategic nuclear

operations effectively enough to deter a Warsaw Pact incursion into NATO territory and, if deterrence fails, to end the conflict quickly on terms favorable to the member NATO nations. Implicit in these favorable terms is the recovery of any lost NATO territory.

Until recently, the essence of deterrence for NATO rested with the decided superiority of the strategic nuclear forces of the United States over those of the Soviet Union. This fact logically led NATO to declare that any conventional attack would bring swift first use of theater nuclear weapons with prompt escalation, if necessary, to attacks against the Soviet homeland. Deterrence was a *fait accompli* since the Soviets could not risk strategic exchange on such unfavorable terms. But as strategic superiority has slowly become strategic parity, NATO finds itself equally deterred from initiating nuclear warfare. This is true despite what the individual NATO member governments might wish to believe. The fact is that in the event of armed conflict with the Warsaw Pact, NATO governments will be "overwhelmed by what they had quietly known all along, that NATO's strategy for 'first use' was not compatible with the loss of America's nuclear superiority."¹

In light of this shift in what the Soviets would term the correlation of forces, conventional strategy should logically take on a new importance for NATO if war in Europe is still to be deterred. This has not occurred. My purpose is to delineate what NATO conventional warfighting strategy should be and what force planning implications this strategy might infer.

NATO conventional strategy is built on intentions rather than capability. The forward positioning of NATO corps along the intra-German/Czechoslovakian border (the "layer cake") is politically designed to demonstrate the intentions of the member nations who do not border the Warsaw Pact. It commits these nations *ipso facto* to respond militarily to a Warsaw Pact incursion. As a secondary benefit, it provides a framework for a forward defense

that will ostensibly destroy Warsaw Pact forces as they attempt to establish offensive momentum, thus preserving the integrity of NATO territory.² But is such an operational plan the correct one in light of the recent emerging strategy of the Warsaw Pact? Jacquelyn Davis of the Institute for Foreign Policy Analysis has rightly stated that "discussions in Western Europe about Alliance strategy fail to consider the implications for NATO planning of the changes that have taken place in the Euro-strategic environment."³ Deterrence for NATO, after all, must depend on how Warsaw Pact political and military leaders view the situation. Of equal importance is the implementation of a truly credible defense should deterrence fail.

The Soviet Union has declared that it will not resort to the first use of nuclear weapons in Europe. This declaration could simply be propaganda and disinformation. For several reasons, not the least of which is the significant nuclear capability of NATO, Soviet desire to keep a conflict at the conventional level is real. The Soviets are realists who understand that the risks of theater, which to them is strategic, nuclear exchange are not worth what potentially might be gained.⁴ The latest analysis of Soviet strategy in Europe indicates that they are developing operational concepts designed to avoid the use of nuclear weapons. What's more, they intend to take the nuclear option away from NATO. The risk they perceive in a nuclear exchange is certainly not mitigated just because that exchange is initiated by NATO!

New developments in operational capability, backed up by fielded equipment upgrades, indicate the Soviets are striving to ensure the Warsaw Pact will be able to control and win a conventional conflict in Europe. These developments are designed to increase the speed, maneuver, and firepower of Warsaw Pact forces. The operational maneuver group (OMG), employed at a theater level, is the embodiment of this developing concept.

The OMG in its various forms and sizes is designed to probe the front and then go through

and around NATO's forward defense, not only taking away NATO's hope for a purely conventional victory but also denying NATO the nuclear option. The concept depends on highly mobile and powerful forces that will be inserted into NATO rear areas as early in the conflict as possible. Objectives for OMGs will not only be assets critical to the prosecution of the conventional war but also those which will prevent NATO's nuclear response—the capture or destruction of nuclear warheads and the means to deliver them. The goal for OMGs is to operate in lucrative rear areas where NATO political leaders could never think of authorizing the use of nuclear weapons even if the capability to do so remained.⁵

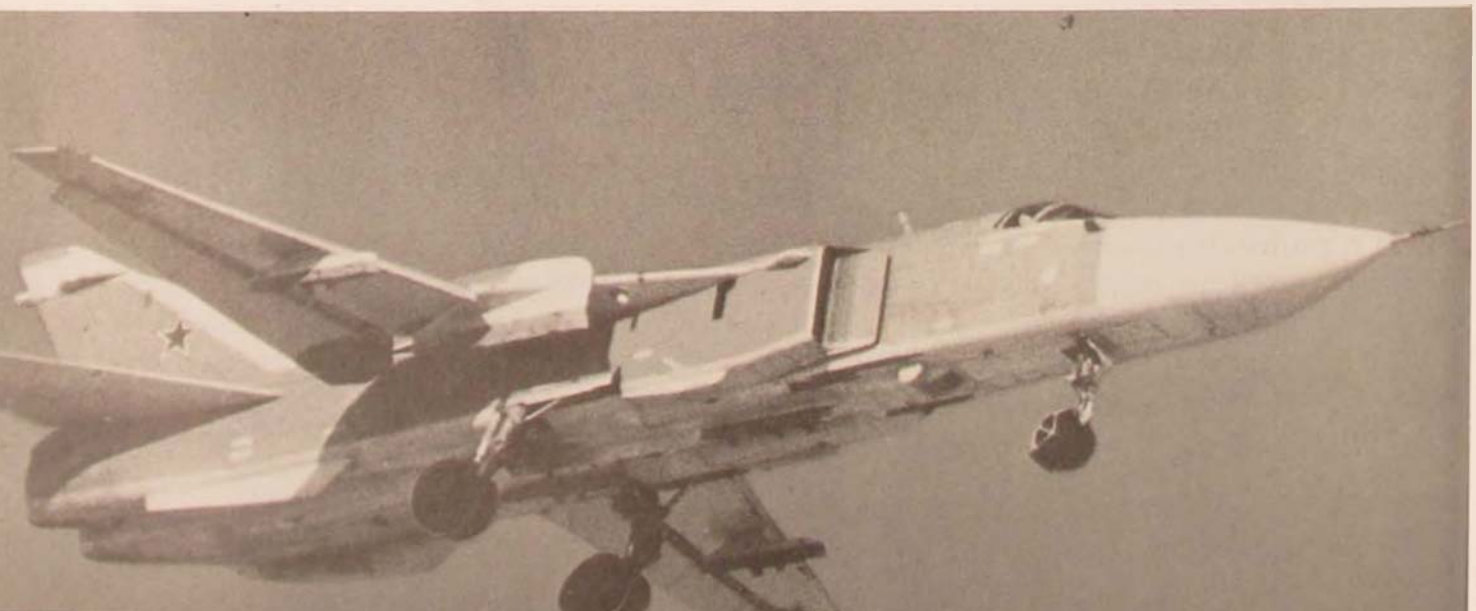
An equally important mission of OMGs will be to bypass NATO's forward defensive positions and forces rapidly. Such operations are designed to exploit NATO's weaknesses and avoid NATO's strengths. Once in rear areas where defense is decidedly more difficult to orchestrate (at least under current NATO plans), OMGs can encircle the "forward defenders" thereby effectively erasing them from the order of battle while preserving offensive momentum. Soviet military doctrine has conceptualized the conflict in Central Europe as the westward movement of multiple fronts (in NATO terminology, army groups), with unprecedented speed and concentration, with the objective of arriving at the English Channel before U.S.

strategic reserves can be mobilized to the continent.⁶ While this appears to be an unrealistic goal, the growing strategy mismatch of NATO vis-à-vis the Warsaw Pact, coupled with weakening of the nuclear leg of flexible response should be matters of grave concern for the alliance, particularly its Central European members. C. N. Donnelly states its succinctly:

As a concept, [the OMG] appears to be well founded in view of both NATO's present defensive posture, and the numerous historical examples of a defensive concept being defeated because of the psychological inability of the defenders to accept the need to yield ground, particularly home ground.⁷

It would appear then that Soviet operational art is striving to bring together strategy and capability. Highly mobile forces supported by massed artillery and a heavy commitment of modern frontal and theater tactical air assets are capabilities the Soviets have been building toward for years. One has a myriad of "bean counts" to turn to for corroboration.⁸ The fallacy of current NATO strategy is that it is not based on a true warfighting capability in face of these new Soviet initiatives. What NATO must develop is not a strategy that will

Introduced in 1974, the Su-24 Fencer (below) is the U.S.S.R.'s primary deep interdiction aircraft. . . . The An-124 Condor (right) has a 150-metric-ton lift capability, which exceeds that of the U.S. Air Force's C-5A B.



counter Soviet forces *but one which will counter Soviet strategy.*

Any viable strategy must address the enemy's strategic concept first. Then the correct application of force can be determined. If we accept the fact that NATO conventional capability is critical to overall deterrence in Europe (which is by no means universally accepted), then such capability must be so oriented that it will counter the Soviet operational scheme—not play into its hands. The Soviets will be deterred only if the outcome of their strategy is in doubt.

NATO's forward defense is designed to discover the location of the enemy's main attacks and then bring forces to bear to destroy Warsaw Pact targets; thus, slowing momentum and wresting the initiative from the enemy while preparing to counterattack. The 1982 version of the U.S. Army Field Manual 100-5 characterized this scheme of defense as static, terrain-oriented, and, necessarily, relying "primarily on firepower from fixed positions."⁹ Nearly 75 percent of NATO combat ground forces and significant tactical air assets are committed to

this task. But if the Soviets can concentrate quickly and push highly mobile forces through weaknesses in the front created by massive firepower supported by airborne and airmobile operations (the OMG concept!) then the forward defense cannot function. Using Soviet calculus, the outcome of the war is not in doubt. A linear disposition of available forces, even such a high percentage as currently planned by NATO, cannot to any acceptable probability prevent Warsaw Pact forces from achieving the mass necessary for the insertion of OMGs.

Since Soviet strategy is based on maneuver and surprise, it is on these principles that NATO strategy must concentrate. This means that NATO forces must modify what Dr. Steven L. Canby calls their "operational style."¹⁰ If sufficient force cannot be concentrated linearly for firepower and attrition to be effective, then the objective must be changed. The strategic objective should be to take the initiative from the enemy by *dislocating* the organization of his attack, *disrupting* his scheme of maneuver,





Combined arms operations using helicopters and armored units, like this one recently conducted against Afghan freedom fighters, are typical of the way the operational maneuver group works.

and neutralizing the power of his forces.¹¹ How can this be done?

The goal of Warsaw Pact forces is to operate in lucrative rear areas, unopposed by significant forces. What if OMGs faced the threat of powerful NATO forces deployed throughout rear areas? What if, through ruse and deception coupled with highly maneuverable operational reserves supported with coordinated fires and tactical air power, the attacking OMG commander could never be sure his force retained cohesion, his supplies were intact, and his routes of advance and retreat were secure? What if NATO's disposition of forces, still comprised of multinational formations to preserve



Soviet occupation forces enforce Moscow's authority in Kabul by patrols in armored vehicles.

The T-80 main battle tank is the backbone of Soviet armored units.

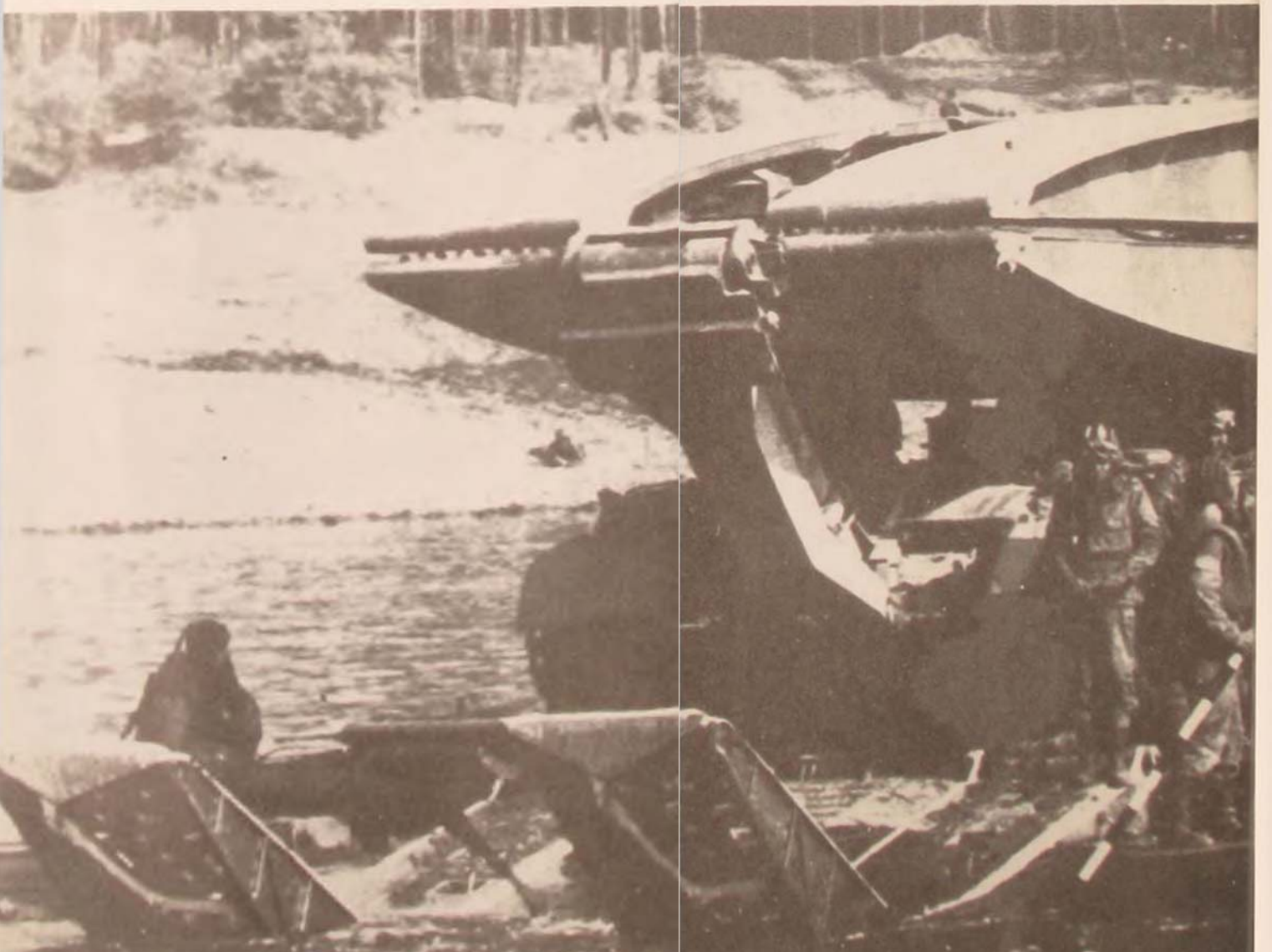


the character of the alliance, were arrayed nowhere but, in the mind of the attacker, seemingly everywhere? What if Soviet forces were made to eat the "layer cake" in large pieces rather than to simply slice through it? The attainment of OMG objectives and Warsaw Pact strategic goals would then, certainly, be in doubt!

Dislocating the attack of OMGs will require both physical and psychological methods. Once the attack axes of OMGs are discovered (a significant task in itself), NATO operational reserve and tactical air assets will have to move quickly to counterattack. These counterattacks might have as an initial goal the separation of

The Soviet Army has 27,000 meters of bridging equipment in Eastern Europe to help overcome terrain features, such as rivers and streams.

artillery and air defense from the OMG. This task can be accomplished through the use of improved surveillance efforts coupled with counterbattery and suppression of enemy air defense fires and the application of tactical air against both enemy capabilities. Mobility of NATO forces will be critical. To facilitate this movement, ground forces will need initially to be deployed in and around critical points most likely to be OMG objectives within rear areas. These forces cannot be, in the classic sense, assembled to await orders to counterattack. Rather, they must have mission-type orders and be prepared to attack almost instantaneously with the discovery of the presence of mobile Warsaw Pact forces. For instance, it may be tactically wise to preestablish artillery support so that fires can be brought to bear immediately at significant depths throughout the main bat-



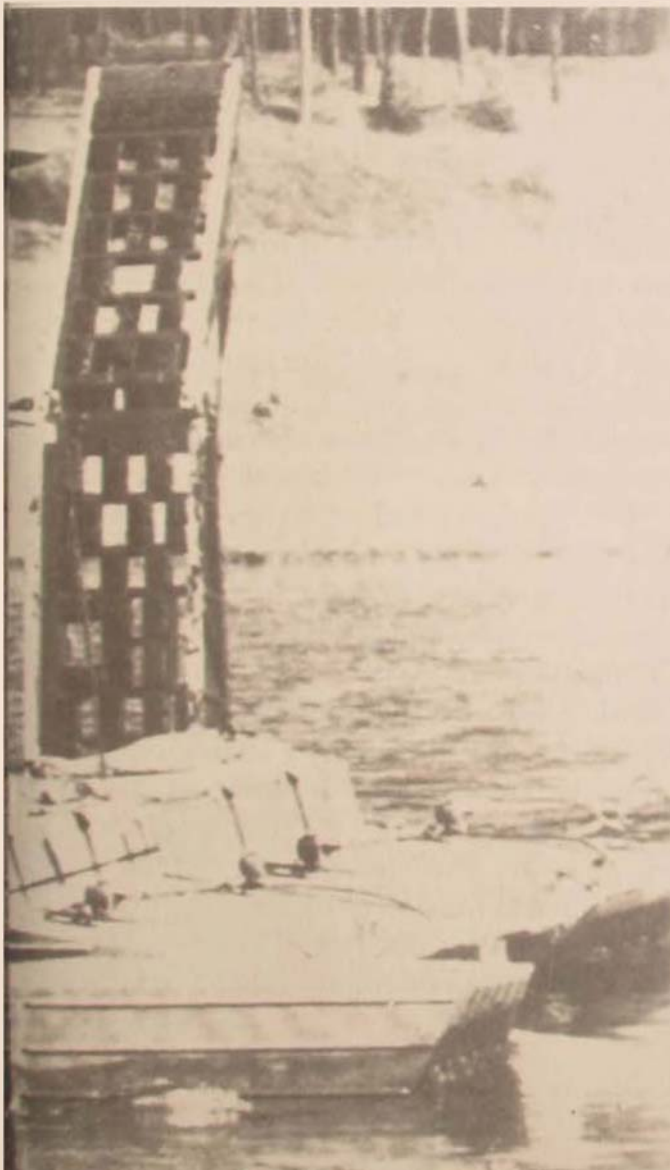
tle area. Such a "checkered square" deployment of defensive forces was successfully used early in World War II in the British North African campaign against mobile elements of Rommel's Afrika Korps.¹²

Tactical air assets, including attack helicopters, will play a decisive role in such engagements primarily due to the flexibility and responsiveness they provide. Air superiority will remain critical to success. NATO mobile reserve ground forces cannot hope to move quickly enough to dislocate enemy forces unless they are essentially free from air attack. It is somewhat likely that the Soviets will devote significant air power to cover OMGs. And it is quite possible that large air battles will rage about most OMG incursions. NATO defensive counterair and attack air assets will have to be at a very high state of alert, possibly even air-

borne, in order to respond rapidly to the axis of OMG movement. Tactical air power's *most critical* mission will be to facilitate the maneuverability of NATO forces and deny the maneuverability of Warsaw Pact forces.

Psychologically dislocating the enemy will be just as important. Camouflage, concealment, and deception should take on new importance. If NATO forces are to be moved from vulnerable and ineffectual forward positions, the Soviets must never know the areas that have been thinned, for it is exactly where they would choose to strike. Instead, the main battle area should seem to have—through camouflage, concealment, and deception—extensive cohesiveness and more forces arrayed than the attacker could hope to deal with. Electronic warfare will have decisive potential. Actual command electronic signatures would be carefully concealed while bogus deception signals would be regularly emitted.

Lieutenant General Raymond B. Furlong has stated that, "... our strategies ought to seek this as their principal object—the mind of the opposing commander."¹³ This emphasis can best be manifested by attacking the enemy along the "line of least expectation." *The attacking commander must be made to feel suddenly trapped by the quick maneuver and surprise of the opposing NATO forces.*¹⁴ While this might be accomplished by direct assault, a more devastating psychological effect can be produced by cutting deep into the attackers flanks and lines of communication. There is, of course, nothing revolutionary about such an approach. However, it seems questionable that effective flank and rear attacks could be carried out when the high percentage of NATO forces are arrayed along the border in forward defensive positions; especially, if operational maneuver groups can rapidly bypass these forces. In May 1940, French defensive doctrine was based on a similar scheme. French forces were linearly deployed, with very few reserves, along almost the entire border with Germany; but particularly in Belgium where it was expected



that the main thrust would come. Instead, highly mobile, mechanized forces struck through Luxembourg and were quickly into the heart of France. The defense was never able to maneuver and concentrate effectively enough to neutralize the German columns.

Disruption of the Warsaw Pact scheme of maneuver will require an understanding of the attacker's vulnerabilities. In the case of OMGs, exploitation of vulnerabilities can be especially fruitful for NATO. Execution of a quick breakthrough by Soviet forces will require careful coordination and synchronization. Psychological and electronic warfare by NATO can, again, prove to be of tremendous value. Soviet automated procedures and reliance on operational algorithms will provide significant opportunities for disruption. The Soviets will use the cover of night to speed incremental advances through prepared defenses. NATO must be better prepared to fight at night. Obstacles, especially rivers, will have to be crossed quickly. Wherever possible, NATO forces should be prepared to exploit such hesitations in the OMG's momentum. Artillery support will be absolutely critical to OMGs.¹⁵ In fact, the ability of NATO to nullify the firepower of Warsaw Pact artillery effectively could prove to be the proverbial "war-stopper."

In order to *neutralize* the Warsaw Pact attack finally, its follow-on support must ultimately be denied. This includes not only logistics but also follow-on combat forces. The current concept of follow-on forces attack (FOFA) should be part of NATO plans in conjunction with providing effective dislocation and disruption of operational maneuver groups. It makes little sense to carry the fight to the enemy's rear areas without first (or at least simultaneously) neutralizing the forces present in your area. Nevertheless, it is of critical importance that deep attacks against support and follow-on forces seize the initiative from the attacker, the ultimate operational goal. Seizing the initiative is a prerequisite to the development of favorable political alternatives that can lead to termina-

tion of the conflict on terms favorable to NATO.

It is in Warsaw Pact rear areas that force ratios mean the least and the principles of maneuver and surprise can most completely be applied. NATO must strive to attack effectively first. This does not insinuate a preemptive strategy. On the contrary, it would be unwise for NATO to be anything other than a defensive alliance. However, once Warsaw Pact forces have crossed into the NATO territory, there can be no rational reason for allowing a sanctuary to remain. By the same token, planning for such an eventuality should not irritate the sensitivities of alliance governments. As Samuel Huntington states, "there is . . . no reason why a politically defensive alliance cannot have a militarily offensive strategy."¹⁶ NATO should be prepared to cross into Warsaw Pact territory in order to take necessary steps to neutralize the forces already in place on NATO soil and create political leverage to force the Soviet Union to negotiate termination of the conflict. Again, such attacks need not (and should not) be frontal assaults against strong Warsaw Pact reserves. Rather, in addition to deep attacks already envisioned in the FOFA concept, raids might be accomplished by infiltrators playing on the political paranoia of leadership, by saboteurs against fragile communications link-ups, by attacks against nuclear, ammunition, and fuel storage sites but, most important, against the lines of least expectation where the element of surprise can best be exploited.

U.S. AirLand Battle doctrine has been dangerously evolving away from the concepts embraced in forward defense. It is important that the alliance maintain a consensus concerning its military strategy. The essence of AirLand Battle doctrine is the identification of and concentration on the enemy's strategic center of gravity. The concept is built on historical precedent, which reveals that maneuver and surprise are the elements of combat which "enable smaller forces to defeat larger ones." To adopt such a doctrine, a somewhat revolutionary concept of command and control will

have to be instituted. Decentralized command and control will be necessary to facilitate the agility to conduct such mobile operations. Commanders at all levels must have the authority to commit forces to a course of action that they know to be consistent with the theater strategy.¹⁷ Without such a scheme of command and control, disruption, dislocation, and, ultimately, neutralization of a synchronized Warsaw Pact attack cannot be assured; for, all NATO forces must maintain a tempo of combat of an unprecedented nature to counter numerical disadvantages. Forward defense cannot accomplish this, but a NATO variation of Air-Land Battle might.

There is empirical evidence which suggests that such doctrine applied to NATO strategy would provide a credible defense. The Office of the Secretary of Defense sponsored a war game in May 1981. In that war game, a corps sector of Central Europe was defended by former Generalmajor Friedrich Wilhelm von Mellenthin and *General der Panzertruppe* Hermann Balck. Both officers had faced massive Soviet attacks during World War II. During the war game, they successfully defended the sector with a powerful mobile reserve. Conclusions concerning the actions were as follows:

The two retired generals were completely independent from the controversies over NATO doctrine and strategy. The guiding principle of the German strategy was that great results could be achieved only when the defending NATO forces shape the battlefield and retain the initiative. Their experience of massive Soviet attacks and the Soviet combat mentality assured them that the *Soviets were least effective when hit by surprise attacks from unexpected directions*. The Soviets were most effective when grinding through prepared positions or purposely avoiding fortified areas proceeding unchecked deep into the enemy's rear according to meticulously prepared plans.¹⁸

The implementation of such a strategy would encounter some predictable obstacles. Federal Republic of Germany leaders would have to be convinced of its utility. However, it is the German people who will ultimately convince their

leaders that overreliance on the concept of forward defense in the absence of nuclear superiority is suicidal for them as well as the rest of NATO. European NATO governments must be made to realize that the abandonment of forward defense in favor of a defense built on maneuver and surprise in no way signifies a lessening of U.S. political resolve to participate in Europe's defense. Instead, it signifies a commitment to face squarely, in a logical manner, the strategy of the Warsaw Pact given the forces available to NATO now and in any foreseeable future.

If such a strategy were adopted by NATO, implications for force planning would dictate change in areas of emphasis rather than change in overall scope. Military professionals who have responded to recent strategic reform propositions for NATO seem to feel that reliance on maneuver and surprise and application of the indirect approach to strategy, with the accompanying abandonment of attrition-oriented operational style, is synonymous with "do more with less." In fact, adoption of such a strategy might require initial increases in spending to establish certain neglected or de-emphasized capabilities, which would include:

- increased dispersal of theater nuclear assets,
- strengthening of civil-military cooperation,
- radical upgrade in interoperability,
- development of highly mobile reserves,
- strengthening of passive defenses,
- expansion of psychological warfare capability,
- development of comprehensive covert operations forces, and
- expansion of camouflage, concealment, and deception capability.

What is equally important is the development of a sense of strategy and operational art in the professional NATO officer. This is particularly true for the United States military establishment. It will be critical for commanders at all levels to be attuned to the operational goals of the theater. Adopting one of our adver-

sary's adages, the Soviets say, ". . . no matter how good the tactics are, if the operational plans are no good, you lose!"¹⁹

The time has come for NATO to face the realities of the 1980s and beyond. Peace and the deterrence of war do not come without effort and commitment. Soviet and Warsaw Pact strategy are changing to reflect nuclear parity with the North Atlantic Treaty Organization. NATO strategy must do the same. The irrefutability of current force ratios, even by optimis-

tic estimates, indicates that there is unacceptable risk in relying on the attrition strategy implicit in forward defense. It is with an emphasis on maneuver and surprise coupled with the establishment of a comprehensive operational concept that NATO commanders can convincingly employ the forces supplied to them. Without this assurance, NATO cannot ultimately deter conflict in Europe or prevail if deterrence fails.

Washington, D.C.

Notes

1. Fred C. Ikle, "NATO's 'First Nuclear Use': A Deepening Trap?" *Strategic Review*, Winter 1980, as reprinted in "NATO Capabilities and Strategies," Air War College Associate Programs, vol. II, chap. 15, 14th edition, 1980, p. 26.

2. William P. Mako, *U.S. Ground Forces and the Defense of Central Europe* (Washington: Brookings Institution, 1983), pp. 31-35.

3. Jacquelyn K. Davis, "Europe's Edgy Approach to Strategy," *Air Force*, December 1985, p. 88.

4. Phillip A. Petersen and John G. Hines, "The Conventional Offensive in Soviet Theater Strategy," *Orbis*, Fall 1983, p. 699.

5. C. N. Donnelly, "The Soviet Operational Manoeuvre Group," *International Defense Review*, vol. 15, no. 9, 1982, pp. 1177-86. This article contains a detailed overview of Soviet operational theory as well as a historical precedence from the mobile groups of World War II.

6. Lieutenant General William E. Odom, USA, address to the College of Naval Warfare, 10 January 1986.

7. Donnelly, p. 1184.

8. See Mako, op. cit. Also *The Military Balance 1984-85* (London: Institute for Strategic Studies) and *Soviet Military Power 1985* (Washington: Government Printing Office).

9. U.S. Department of the Army, Field Manual 100-5, *Operations* (Washington: Government Printing Office, 20 August 1982), p. 11-9.

10. Dr. Steven L. Canby, "Tactical Air Power in Armored War-

fare: The Divergence within NATO," *Air University Review*, May-June 1979, p. 5.

11. B. H. Liddell Hart, *Strategy: The Indirect Approach* (New York: Praeger, 1954), p. 339.

12. *Ibid.*, pp. 373-85.

13. Lieutenant General Raymond B. Furlong, "Strategymaking for the 1980's," *Parameters*, March 1979, p. 10.

14. Liddell Hart, p. 340.

15. Donnelly, pp. 1185-86.

16. Samuel P. Huntington, "Conventional Deterrence and Conventional Retaliation in Europe," *International Security*, Winter 1983-84, p. 40. Huntington's work is a convincing enunciation of a positive strategy. It should be read by all NATO officers.

17. U.S. Army Field Manual 100-5, *Operations*, May 1986, chapter 2. It is clear that the U.S. Army is progressing toward a concept of operations which reemphasizes the historical ascendancy of professional military skill. It recognizes the clear need for the indirect approach to strategy in the face of a numerically superior enemy.

18. F. W. von Mellenthin and R. H. S. Stolfi, *NATO under Attack: Why the Western Alliance Can Fight Outnumbered and Win in Central Europe without Nuclear Weapons* (Durham, North Carolina: Duke University Press, 1984), pp. 144-45. (Emphasis added.) This work is a historical analysis of the Eastern Front during World War II as it applies to NATO today by one of the principal participants, and it has great significance to NATO operational art as well as strategy.

19. Donnelly, p. 1186.

SPETSNAZ

Soviet Innovation in Special Forces

ROBERT S. BOYD

MANY press articles about SPETSNAZ (Special Purpose Forces) concentrate on their glamorous and sensational aspects, such as assassination missions and

masquerading in the West as athletes. Sensationalism and concentration on issues of relatively minor importance impede readers seeking a balanced understanding of SPETSNAZ



capabilities and limitations. The purpose of this article is to provide such an understanding.

Soviet special purpose forces are called by several names, including *reydoviki* (from the English word "raid"), diversionary troops, and reconnaissance/sabotage troops, but they are most popularly known as SPETSNAZ, an acronym from the Russian *spetsialnoe naznachenie*, meaning special purpose. SPETSNAZ are controlled by the Soviet General Staff's Main Intelligence Directorate (GRU-*Glavnoe Razvedyvatelnoe Upravlenie*). The Soviet Union's Warsaw Pact allies maintain similar forces.

The mission of the SPETSNAZ is to conduct what the Soviets call Special Reconnaissance (*Spetsialnaya Razvedka*). According to the *Soviet Military Encyclopedia*, Special Reconnaissance is defined as,

Reconnaissance carried out to subvert the political, economic and military potential and morale of a probable or actual enemy. The primary missions of special reconnaissance are: acquiring intelligence on major economic and military installations and either destroying them or putting them out of action, organizing sabotage and acts of subversion; carrying out punitive operations against rebels; conducting propaganda; forming and training insurgent detachments, etc. Special reconnaissance is . . . conducted by the forces of covert intelligence and special purpose troops.

More simply, the chief missions of SPETSNAZ are reconnaissance and sabotage. The missions of punitive action and forming insurgent groups are holdovers from World War II. Currently, the only insurgent training conducted by SPETSNAZ consists of advisory efforts in Africa and possibly Cuba. Soviet emphasis on a short war probably precludes any serious plans to organize partisan detachments in Western Europe in the event of war.

SPETSNAZ operate up to 1000 kilometers behind enemy lines, with emphasis on enemy nuclear delivery means, either locating them for attack by other forces or, if necessary, attacking by themselves. Typical SPETSNAZ targets include mobile missiles, command and control facilities, air defenses, airfields, port facilities,

and lines of communication. In addition, specially trained SPETSNAZ elements have the missions of assassinating or kidnapping enemy military and civilian leaders.

The basic SPETSNAZ unit is a team of eight to ten men. The team is commanded by an officer, may have a warrant officer or senior sergeant as deputy, and includes a radio operator, demolitions experts, snipers, and reconnaissance specialists. Team members have some degree of cross-training so a mission can continue if a specialist is lost.

Each Soviet *front* or fleet would have a brigade with a wartime strength of up to 1300 men and capable of deploying about 100 teams. A SPETSNAZ brigade consists of three to five SPETSNAZ battalions, a signal company, support units, and a headquarters company containing highly skilled professional soldiers responsible for carrying out assassinations, kidnappings, and contact with agents in the enemy rear area. The organization of a naval SPETSNAZ brigade reflects its emphasis on sea infiltration, with up to three frogman battalions, one parachute battalion, and a minisubmarine battalion, as well as the signal company, headquarters company, and support elements. Many Soviet armies have SPETSNAZ companies of 115 men and can deploy up to 15 teams. The companies are organized similarly, with three SPETSNAZ platoons, a communications platoon, and supporting units. Besides the SPETSNAZ units at *front* and army, there are additional ones directly subordinate to the GRU.¹ Total Soviet SPETSNAZ strength in peacetime is about 15,000.²

There are stringent standards required of all conscripts assigned to SPETSNAZ. Potential *reydoviki* must be secondary school graduates intelligent, physically fit, and, perhaps most important, politically reliable. Parachute training with a paramilitary youth organization is naturally a plus. Upon induction, a SPETSNAZ conscript will be asked to sign a loyalty oath in which he acknowledges death will be his punishment for divulging details about his service

After induction, some of the conscripts will be selected for an arduous, six-month-long noncommissioned officers school. Anticipating a high washout rate, commanders may send as many as five conscripts for each available NCO slot. In the event more NCOs graduate than there are slots available, the lower ranked graduates are assigned to positions as private soldiers. This excess of trained NCOs provides a ready pool of leaders to replace casualties in the field.³ Washouts and those conscripts not selected for NCO school receive training in their units. In addition to basic military training, they will be trained in the following specialized skills:

- parachuting,
- hand-to-hand combat and silent-killing techniques, including judo, karate, and knife-fighting,
- sabotage using explosives, incendiaries, acids, and abrasives,
- infiltration techniques, including defeat of locks and security systems,
- foreign language and culture,
- foreign weapons, tactics, and vehicles,
- survival,
- reconnaissance and map reading, and
- rappelling.

Training in foreign language, etc., is geared to the SPETSNAZ unit's wartime target area. The team leader is expected to be nearly fluent in one of the languages of a target country, while enlisted personnel are expected to know the alphabet and basic phrases. This specific training relating to a foreign country is intended not only to facilitate operations there but also to enable the teams to conduct missions while wearing enemy uniforms or civilian clothing.

Parachute training begins with static line jumps, but many soldiers will progress to high altitude low opening (HALO) jumps using steerable parachutes. Jumps are made day and night, in all kinds of terrain and weather.⁴

The technical training schedule leaves time

for rigorous physical training involving obstacle courses and forced marches, which are often conducted in gas masks. Some units also provide strenuous adventure training like mountain climbing and skiing. Up to half the year is spent training out of garrison. Once or twice a year, selected teams engage in extremely realistic exercises carried out under battle conditions. Teams are provided little in the way of rations and are forced to forage for food. Exercise objectives are often operational installations guarded by regular troops or soldiers of the Ministry of Interior.

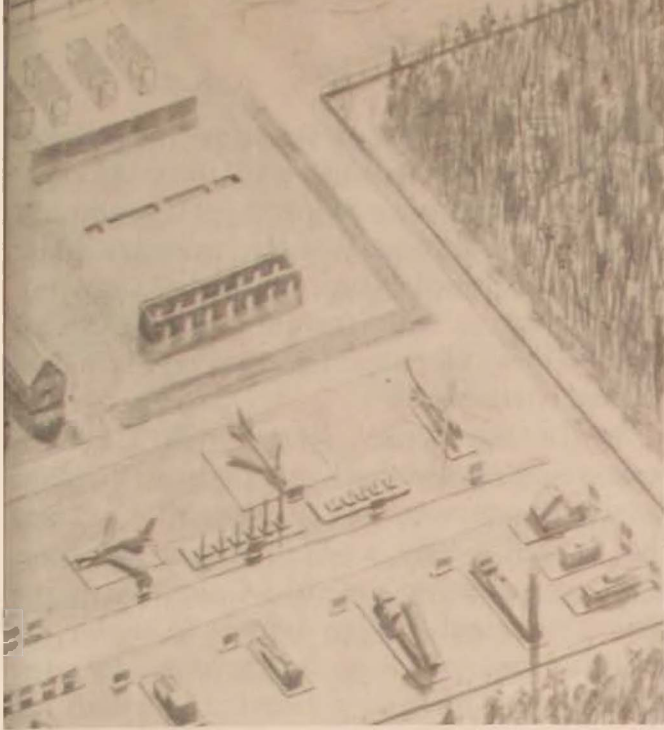
Further indications of the realism of SPETSNAZ training are elaborate brigade training areas containing full-scale mockups of enemy weapon systems and facilities. Brigades opposite NATO typically have models of Lance, Pershing, and ground-launched cruise missiles, as well as airfields, nuclear storage sites, air defense sites, and communications facilities. These mockups are used for both equipment familiarization and demolition training.⁵

SPETSNAZ careerists are well compensated for the strenuous training. Each year of service with a SPETSNAZ unit counts as one and one-half years for pension purposes, and there is an incentive pay of 50 percent of salary.⁶ As in other types of airborne units, SPETSNAZ receive jump pay, which varies with the total number of jumps, e.g., the fiftieth jump pays more than the fifth. A conscript's jump pay can exceed his regular salary.

In keeping with their behind-the-lines missions, SPETSNAZ are lightly equipped. Each soldier will have an AK-74 assault rifle or SVD sniper rifle, a silenced 9-mm pistol, ammunition, a knife, up to eight hand grenades of various types, and rations. In addition, every team member carries a portion of the team's gear, which will normally include an RPG-16 grenade launcher and rounds, an R-350M burst transmission radio capable of communicating over a range of 1000 kilometers, directional mines, and plastic explosives. If the mission demands it, the team can also be assigned spe-



Advisers for armed forces friendly to the U.S.S.R. are drawn from the SPETSNAZ.



If Rambo wore a Russian SPETSNAZ beret, he would have earned it with training in a place like the one depicted above. To learn about sabotage, the SPETSNAZ trains on realistic aids depicting Western basing modes and equipment. Rambo would also have learned to operate in a variety of environments and would, like these troops, be adept at fighting in the mountains.

cial weapons, such as the SA-7 or SA-14 surface-to-air missile. The load per team member is approximately 40 kilograms (88 pounds).

Provisions of up-to-date intelligence is critical to the success of SPETSNAZ missions. The second directorate of the *front* staff is responsible for intelligence. It includes separate departments for reconnaissance, agent intelligence, signals intelligence, information processing, and SPETSNAZ. Under the SPETSNAZ department are both the SPETSNAZ brigade and a dedicated SPETSNAZ intelligence unit.⁷ The latter is tasked with recruitment of "sleeper" sabotage agents and peacetime collection of information on potential targets and enemy military personnel.

SPETSNAZ sabotage agents are rare in comparison to ordinary intelligence agents. A sleeper might have no other mission than to wait for the order to commit sabotage in prepa-



ration for war. He might also be tasked to acquire safehouses to support the eventual deployment of SPETSNAZ teams. Besides the sleepers, the SPETSNAZ intelligence unit controls legal and illegal agents for collection of information. Potential SPETSNAZ agents include attachés, soldiers aboard ships on trips to the West, and truck drivers crossing international borders. There is a European customs agreement that allows trucks marked "T.I.R." (*Transports Internationaux Routiers*) to cross borders with minimum customs formalities. These vehicles can (and do) travel near sensitive installations and through areas off limits to formally accredited military personnel.⁸ Information is also exchanged with the agent intelligence department. Thus, intensive peacetime collection efforts probably keep SPETSNAZ target folders full.

The SPETSNAZ agent network will be particularly important in the days immediately preceding hostilities. As tensions rise, the professionals of the headquarters companies will infiltrate enemy territory, often through legal entry points with false papers or as members of Soviet legations. They will contact in-place agents if necessary and prepare for the arrival of

the ordinary SPETSNAZ teams.

The majority of SPETSNAZ teams will infiltrate by fixed-wing Aeroflot aircraft once hostilities have begun, using Soviet offensive air operations as cover. Once in the target area, the teams will bury their parachutes and organize a base. Routes into the base camp will be booby-trapped to provide warning of discovery, and the location of the base camp will be shifted periodically.⁹ If the mission demands mobility, SPETSNAZ will steal enemy vehicles or use transportation acquired by the agent network.

Most SPETSNAZ missions will have the primary objective of reconnaissance, so they will use camouflage to avoid contact with enemy patrols. They will attack if ordered to do so by the brigade or in the event a nuclear missile is ready for firing. In that case, the team will try to destroy the missile by fire and, if not successful, will mount an all-out attack. As a general rule, SPETSNAZ commanders operate independently. Once missions are given to the teams, army and *front* headquarters keep interference to a minimum, relying on the initiative and skill of the team leaders. Sufficient coordination is maintained to be able to order the teams out of the way of other Soviet attacks, particularly nuclear strikes.¹⁰

SPETSNAZ are not particularly well known within the Soviet military, and they tend not to publicize their existence and capabilities. Their uniforms are not distinctive, with ground forces SPETSNAZ usually wearing airborne or signal troops' uniforms and naval SPETSNAZ wearing naval infantry or submariners' uniforms. Their ethnic makeup is likewise not distinctive and to some degree reflects the ethnic characteristics of the intended target. For example, SPETSNAZ units in the Far East are alleged to have available North Koreans and Japanese from Manchuria and the Kuril Islands.¹¹

There were special purpose groups in World War II whose primary mission was to parachute into an area and form the nucleus of a partisan group to be fleshed out with area resi-

dents.¹² SPETSNAZ as we know them today were probably not formed until the midsixties, perhaps as a response to increased U.S. emphasis on unconventional warfare, exemplified by President Kennedy's support for the U.S. Army Special Forces. Some insight into SPETSNAZ capabilities can be gained from reviewing reported past actions.

In the late sixties, four-man SPETSNAZ teams were clandestinely inserted into Vietnam to test the then-new SVD sniper rifle in combat.¹³ In May 1968, a reconnaissance-sabotage group attached to the 103d Guards Airborne Division seized Prague Airport to enable the division to land. Prior to the operation, the officers and men were familiarized with the airport and its defenses. They embarked on a plane that received permission to land at Prague based on a fictitious claim of engine trouble. As the aircraft touched down and slowed, they jumped out, seized guard posts, and helped to set up a control team to bring in the division.¹⁴

In December 1979, SPETSNAZ, in company with the Committee for State Security (KGB), surrounded President Hafizullah Amin's palace in Kabul, Afghanistan, and proceeded to execute Amin and virtually everyone in the palace. In the words of an Afghan survivor, "the SPETSNAZ used weapons equipped with silencers and shot down their adversaries like professional killers."¹⁵ After this, the SPETSNAZ secured Kabul Airport in preparation for the mass airlanding of airborne troops. Subsequent operations in Afghanistan have included attempts to ambush the rebel leader Ahmed Shah Massoud, infiltration of rebel-held territory, and heliborne ambushes of rebel units.¹⁶

There was midget submarine activity within territorial waters in October 1982 in Sweden and in August 1983 in Japan. The midget submarines probably belonged to naval SPETSNAZ and may have been delivered to the target area by specially equipped India-class submarines. Discovery of tracks from the submarines also coincided with reports of unknown divers appearing on shore, leading to speculation

that SPETSNAZ were conducting penetration exercises in foreign countries.¹⁷ The true reasons for this activity may never be known, but the boldness of the operations had the undeniable effect of enhancing the reputation of SPETSNAZ.

ONE must be on guard in concluding from the more extreme articles in the open press that the average SPETSNAZ soldier is ten-feet tall. Despite their qualifications, tough training, and demonstrated value, the fact remains that the majority of SPETSNAZ are conscripts on two-year tours of duty. Consequently, there is limited opportunity for cross-training in specialties, and soldiers may lack the degree of motivation that characterizes Western unconventional warfare forces, such as the U.S. Army Rangers, Special Forces, and the British Special Air Service. In comparison to Western unconventional warfare forces, SPETSNAZ lack specialized infiltration aircraft such as the U.S. Air Force MC-130E Combat Talon. This lack severely limits SPETSNAZ capabilities for clandestine insertion, particularly prior to the start of hostilities. As a result,

SPETSNAZ must rely on the brute force of the Soviet air operation to cover most infiltration. If Soviet fighter-bombers and other means do not inflict the necessary damage to NATO air defenses, unarmed transports could prove sitting ducks, with the result of heavy SPETSNAZ losses before teams arrive on target.

Despite these limitations, SPETSNAZ pose a formidable wartime threat to NATO's rear area. From the Soviet side, a force of several thousand highly trained soldiers is a small investment with the potential layoff of neutralizing NATO's nuclear delivery capability and degrading air defense and communications systems, not merely through the efforts of SPETSNAZ, but by enhancing the effectiveness of aircraft, missiles, and ground forces through accurate target location. The size and quality of the SPETSNAZ establishment point out the need for good security of key installations, a fact that is increasingly taken to heart by Western planners. Continued awareness of the SPETSNAZ threat is necessary for making further tangible improvements in both rear area combat doctrine and installation defense measures.

Hq USAF

Notes

1. Viktor Suvorov, "Spetsnaz—The Soviet Union's Special Forces," *International Defense Review*, September 1983, pp. 1209-16.

2. Estimates of SPETSNAZ strength range from 15,000 to 60,000. Based on known units and Soviet manning practices, it is quite likely that the lower figure more accurately reflects the peacetime strength. An additional 10,000 to 15,000 would probably be required to fill out brigades and independent companies.

3. Suvorov, p. 1212.

4. Captain Reinhold Neuer, "Paratroops of the National People's Army: Specialists in Combat behind Enemy Lines," *Truppenpraxis*, July 1983, pp. 515-20. This discussion is mainly about East Germany recon-sabotage troops, but it probably applies also to SPETSNAZ.

5. *Soviet Military Power 1985* (Washington: Government Printing Office), p. 73.

6. Suvorov, p. 1213.

7. *Ibid.*, p. 1211.

8. *Washington Times*, 23 December 1982.

9. Suvorov, p. 1215.

10. *Ibid.*

11. Japanese newspaper *Sankei*, 3 January 1984.

12. Major General V. Andrianov, "The Organizational Structure of Partisan Formations during the War Years," *Soviet Military History Journal*, January 1984, pp. 38-46.

13. Ross S. Kelly, "Spetsnaz: Special Operations Forces of the USSR," *Defense and Foreign Affairs*, December 1984, pp. 28-29.

14. Aleksei Myagkov, "The Soviet Union's Special Forces," *Soviet Analyst*, 9 January 1980.

15. French newspaper *Figaro*, 6 September 1984.

16. Kelly, p. 28 and p. 29.

17. Suvorov, p. 1212; CBS Evening News, 15 November 1983; *Figaro*, 6 September 1984; and *Sankei*, 10 February 1984.



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R in my opinion

THE HUMAN FACTOR: THE UNITED STATES VERSUS THE SOVIET FIGHTER PILOT

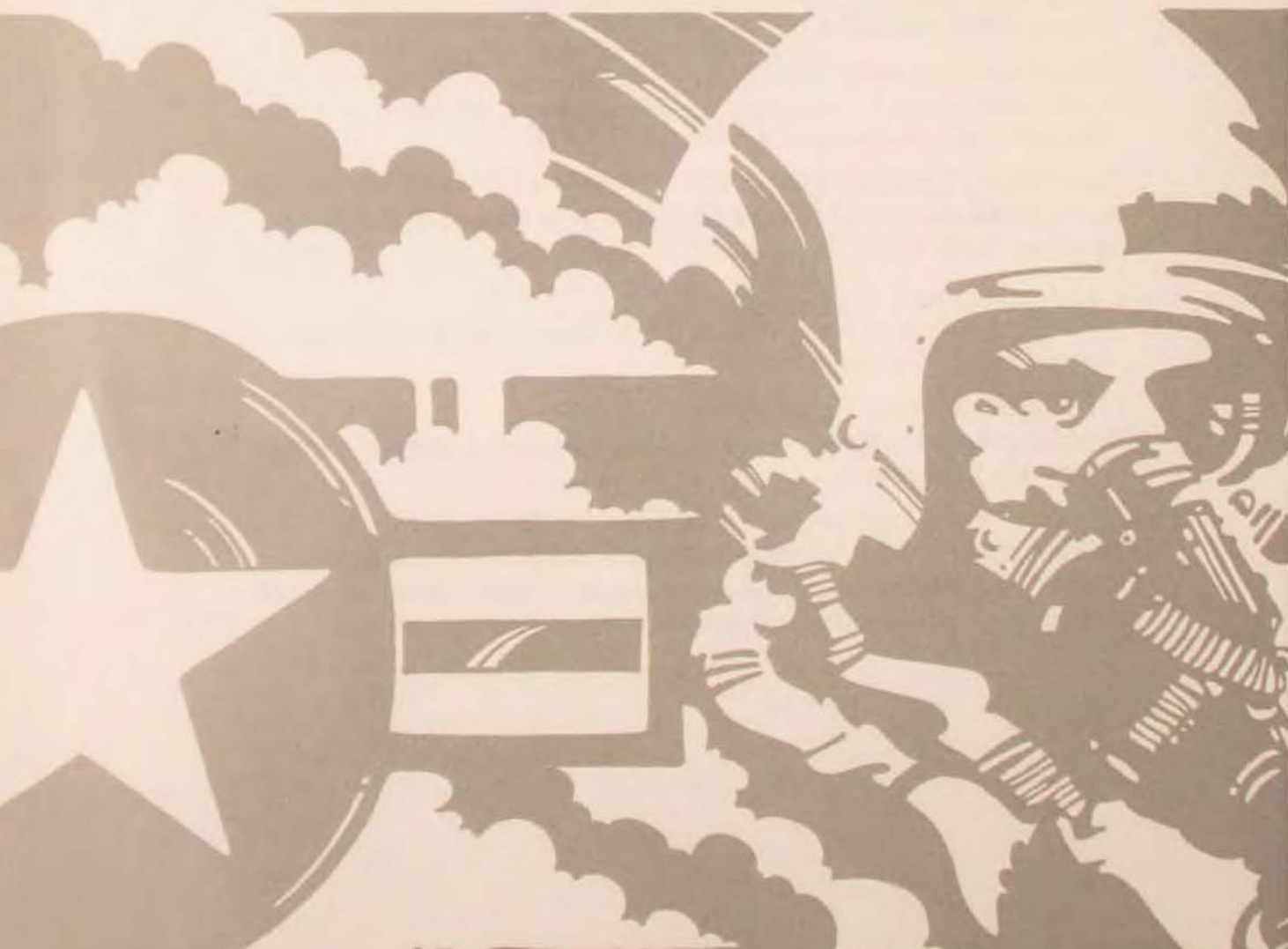
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*Our most important advantage [over the Soviets]
is our personnel.*

General Creech, *Armed Forces Journal*, 1983

*U.S. tactical forces retain a qualitative advantage
over those of the Soviet Union both in aircraft and
weapons and—more important—in personnel and
training.*

Soviet Military Power, April 1985



THERE seems to be a general consensus of opinion today that in a comparison of strength between the Soviet and U.S. tactical air forces, the Soviet advantage in numbers is counterbalanced by the U.S. advantage in technology, personnel, training, and tactics. Since the Soviets have been successful in narrowing the technology gap, some U.S. policymakers have put even more emphasis on the perceived U.S. advantage in personnel. In fact, some would argue that the U.S. fighter pilot, his training, and his tactics are so superior that even if the Soviets could catch up in technology, the U.S. fighter forces would still have an overall edge in combat capability.

This article examines that argument and provides some answers to difficult questions surfaced by this issue. Is it true that the U.S. fighter pilot is inherently better than his Soviet counterpart? Are U.S. training programs and tactics better? If the comparisons are true, how

much of an advantage does the U.S. pilot maintain, and how does one measure the difference? Is this advantage widening or narrowing? Finally, and most important, once the advantage is determined, how does one go about improving the fighter force to ensure an even greater advantage?

To begin a comparison of two countries' fighter pilots' capabilities is not an easy task. While it is quite common for an analyst to compare fighter forces based on the number of aircraft and quality of weapons, it is very rare to find an objective study of pilot capabilities. In fact, most analyses quantify combat capability as a product of numerous factors, such as aircraft, logistics, maintenance, munitions, etc. But the human factor (pilot ability, training, and tactics) is rarely included because its measurement is very subjective and its impact on the equation so little understood. Few will argue, however, that differences in pilot capa-



bility do exist, and some aspects of the human factor should be included in the equation if we are to achieve accurate comparisons.

The human factor, as it relates to Soviet and U.S. combat capability, constitutes three main variables—the inherent ability of the individual pilot, his training, and his tactics. These three variables, when added together, produce a pilot or “human factor” input to the overall effectiveness of a sortie or mission. Let’s look at each of these variables in turn.

The first variable is the inherent ability of the pilot, or put another way, the quality of the individual as a fighter pilot, given equal training and tactics. The pilot’s inherent ability is a product of the pilot selection process and the personnel system that assigns and maintains the rated fighter-pilot force. Relative to other air forces, the U.S. Air Force does very little preselection testing of personnel prior to their entering pilot training. In other air forces, especially Israel’s, numerous psychological, motor skills and other screening tests are given to measure inherent fighter pilot ability prior to selection for pilot training. By contrast, U.S. Air Force pilot selection is based on a relatively antiquated system of undergraduate academic grades, officer qualification test scores, and 20/20 vision. The pilot selection process does not differentiate between skills necessary for fighter pilots and other pilots such as airlift or bomber pilots. This distinction is made much later in the training cycle, is usually subjective, and can only select from those who have already been admitted into the program. The USAF pilot selection system still suffers from the “universally assignable pilot” concept that has been around for years.

When comparing the U.S. pilot selection system with the Soviets, one could safely say that the Soviets’ competition for pilot training slots is more competitive than ours. The benefits after attaining the status of fighter pilot in the Soviet Union are some of the highest in the society. The higher aviation schools are considered among the best schools in the country,

and military aviation is a highly sought-after profession. The Soviet pilot is at the top of the economic and social scale so that selection to one of the higher aviation schools is a ticket to the upper echelons of society. Lieutenant Viktor I. Belenko, the Soviet MiG pilot who defected in September 1976, related that more than 4000 applicants tested for only 360 slots to his freshman class at the Soviet Air Defense Command flight training program at Armavir in the Caucasus. And, out of the 360 that began, only 258 graduated—a 30 percent attrition rate. Thus, while it can be argued that the average Soviet high school graduate is probably less technically oriented than his U.S. counterpart, the Soviets have the advantage of large numbers of applicants to military aviation schools from which they can choose the cream of the high school crop.

When our pilots graduate, they are assigned to specific unit aircraft and are managed by the rated officer personnel system for subsequent assignments. Here again, we do not do a very good job of rated officer management if enhanced combat capability is the final objective. The personnel rated management system attempts to maintain the fighter pilot rated force at a level based on many factors, such as unit manning levels, training levels, and unit experience levels. Many reasons are used for moving fighter pilots from one air base to another, from one aircraft type to another, or from rated duties to a staff position. These reasons include, but are not limited to, the “fairness” of personnel moves, remote assignment eligibility, career broadening, manning levels, and career progression. Rarely has the personnel system explained a move by stating that it is in the best interest of increased combat capability. In fact, the rated management system would be hard pressed to move individuals based on pilot capability since there is no formal system that rates pilots according to their relative individual capabilities. Promotions are not made on pilot capabilities, but rather on officer effectiveness reports, and most assignments are

made on professional career progression rather than combat capability.

The Soviet rated management system is not much better than ours, but because of their restrictive system, a fighter pilot is not moved as frequently. The Soviets, therefore, experience less turbulence in their force, and a pilot may fly the same aircraft or mission for twenty-five years. However, their promotions and assignments are based more on political reliability than pilot effectiveness. In the end, their progression is probably as equally nonrelevant to combat capability as the U.S. system.

If it is generally accepted then that the USAF has better pilots than the Soviets, it certainly is not due to any preselection criteria, screening, competitive testing, or rated management system. In fact, the individual Soviet pilot, when compared to the Soviet society as a whole, is probably one of the most highly qualified and capable individuals. He certainly seems comparable in inherent abilities with his American counterpart. It seems safe to assume that any advantage we maintain is not due to the inherent abilities of our fighter pilots. However, if one were to get serious about upgrading the pilot force and in gaining or increasing an advantage in the human factor, the pilot selection and rated management areas would certainly be good places to start.

The second variable affecting the human factor is training. If there is one area where the United States Air Force leads all countries, it is in fighter training. In the past ten years with the advent of Red Flag, Aggressor training, and Dissimilar Air Combat Training (DACT), the USAF has made gigantic strides toward realistic fighter training. From the lessons learned in Vietnam and the Red Baron report, U.S. fighter forces have developed the most realistic and ambitious training program in the world. However, these "new" training programs are more than ten years old now, and they have reached a plateau in progress with stagnation setting in.

The Soviets, on the other hand, were late in

realizing that new generation fighters need new generation training philosophies. As stated in *Soviet Military Power*, published by the Department of Defense in March 1983, "the Soviets have recently made significant changes in their air combat tactics and training programs. Pilot independence and initiatives are now stressed. The continual, technological upgrading of equipment and increasing proficiency in combat employment of that equipment have resulted in greatly increased Soviet aviation capabilities." Thus, even in the area of training where the USAF fighter pilot has always excelled, Soviet initiatives dictate new and aggressive U.S. training initiatives if the United States is to maintain its present advantage in the training variable.

The third variable in the human factor to be discussed is tactics. Although tactics are not a specific human quality, they are designed and employed by the pilot and therefore impact upon how well the pilot can employ his aircraft. In 1972, the Fighter Weapons School at Nellis AFB, Nevada, began experimenting with new fighter formations and tactics. These formations and tactics, called Fluid Two, were a composite of lessons learned in air-to-air combat in Vietnam, the U.S. Navy's "loose deuce," and formations flown in the F-104 and other aircraft called "double attack." Although the formation was different from the old Fluid Four tactic, the most significant difference was the philosophical change in the wingman's duties. Fluid Two detached the wingman from a very restrictive cover position ("fighting wing") on the leader to a more active role, maneuvering independently, yet in coordination, with the leader. For the past ten years, the tactical air force has been training with and refining fluid attack tactics. In principle, U.S. fighter pilots are free to design, test, and fly almost any variation of formations and tactics that they or their squadron wish to try. However, in practice, due to limited sorties, safety restrictions, and a rated management system that always requires training to the lowest de-

nominator, tactics development today is in fact spotty and often neglected.

As noted earlier, the Soviets are attempting to improve their tactics with each new generation of aircraft, and they are just beginning to give their pilots more independence. On the surface this appears to be a ten-year lag in tactical development. However, when one considers Soviet historical doctrine of mass, breakthrough, and strict command and control, the idea of large, inflexible, and slow maneuvering formations may be more design than simple lack of progress. What may look to the U.S. observer as an unimaginative tactic may to the Soviet commander be as sophisticated and advanced as his doctrines, force structure, and mission would dictate. And who is to say that fluid attack and independent maneuvering would work better than regimental control in

The F-16 Fighting Falcon, one of the world's hottest fighters, has been a part of the U.S. Air Force for nearly a decade. . . . The MiG-27 (opposite page) has served the Soviet Air Force well in Afghanistan. In both air forces, regardless of equipment, good aircrews remain the key to fielding respectable fighting forces.

their battle schemes? In either case, suffice it to say that both the U.S. and Soviet tactics will change with the advent of new aircraft, missiles, and radars. What worked yesterday in the F-86 will not work in the F-15. The tactic used to defeat the MiG-21 will probably not be the best tactic to defeat the Flanker. The USAF has always been willing to change tactics, however, tactical development, evaluation, and implementation seem to be taking more time, money, and effort these days. And the Soviets are not standing still. With their new equipment, they are experimenting with new tactics. So even in the tactics variable, the U.S. advantage has become questionable and possibly is slipping away.

Thus, in a brief examination of the variables that make up the human factor, it can be seen that although in each case no quantitative measurement can be made, there is reason to believe that the United States is equal to or slightly ahead of the Soviets. However, whereas five or ten years ago this advantage may have been quite large, the Soviets seem to be narrowing the gap in all cases. U.S. pilot selection and



rated management policies have not changed, and training and tactics initiatives, while dynamic after Vietnam, have pretty much stagnated. In the meantime, the Soviets have been plodding along in their inimitable way, slowly increasing their training realism and testing new tactical philosophies to match their weapons improvements. If the United States is to maintain any advantage that it may have in the human factor, drastic steps need to be taken soon.

We can increase tactical combat capability vis-à-vis the Soviet Union in a number of ways: buy more aircraft, build newer aircraft, radars, and missiles, increase the spares, etc. The one factor, however, that could have the greatest impact, and yet is probably the least expensive and most easily changed, is the human factor. By launching an aggressive and dynamic program to upgrade the fighter pilot force, the USAF could drastically alter the combat equation in its favor for years. Simple initiatives and policy changes affecting the human factor variables could make U.S. fighter combat capability increase exponentially.

The inherent ability of the fighter pilot is one of the most important variables in the human factor, the easiest to change, and yet the most neglected. As an old fighter pilot once eloquently remarked, "You can train a hamburger, but when you're through, you still get hamburger." Fighter pilot training today is a demanding process and without a good product to start with, no amount of excellent training will produce a quality fighter pilot. Therefore, the selection process must be changed to be more aggressive, competitive, and highly selective. Large groups of candidates should be screened with sophisticated, modern testing procedures. Large attrition rates should be experienced in the early phases of training. Needless to say, specialized fighter training should begin early. At every stage of training, competition, and ratings based on fighter pilot performance should be used for selection to top fighter pilot positions.

The rated management system needs a thorough review. Personnel assignment policies need to be changed so they can respond to the needs of combat capability and not to an arbi-



trary "good deal/bad deal" list. In other words, if a forward air controller job needs filling, you don't take the best F-15 pilot to fill it just because he's due a "bad deal." More sensitivities need to be paid to the policies that force early rotations and create turbulence in the units. In today's fighter force, it takes two to three years to upgrade a flight lead and another two to three years to get good at it. Most new fighter pilots don't stay in their first squadron more than two to three years, and many don't remain in their first assignment aircraft longer than five years. The result is that most operational fighter squadrons are continually upgrading new pilots, and very few squadrons reach a level of high combat capability. What is required by the rated management system is a conscious effort to keep good fighter pilots in the same aircraft, same mission, same unit for longer periods of time. Gone are the days when we can afford a universally assignable pilot, or even a "generic fighter pilot."

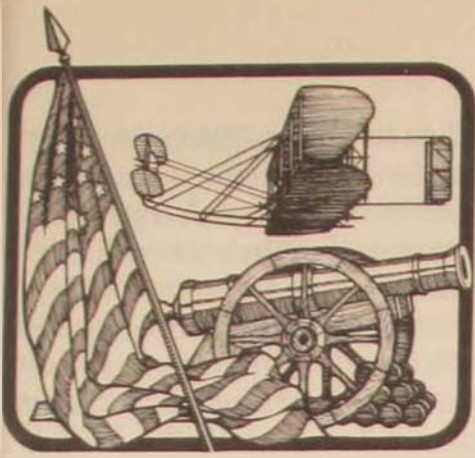
To make these changes in the pilot selection process and rated management system requires major policy changes but should cost relatively little. When it comes to improving the training variable, however, costs do enter into the picture. Quality training is expensive, but expensive training is usually cheaper in the long run due to increased combat capability and a more efficient and effective fighting force. New, innovative methods of training need to be developed to stay ahead of the Soviets. State-of-the-art combat simulators that rival the most advanced air-to-air training are available today. More air combat maneuvering instrumentation and electronic combat ranges are needed. More flying time, range time, realistic scenarios, and composite force training are all high priorities. Combat is not the time to discover that you need more training.

At first glance, one would assume that tactics, unlike training, would be very cheap to change and would simply require a tactics manual change. However, tactics like the other variables are very difficult to measure, and in

order to quantify the advantage of one tactic over another, testing is required. In-depth tactics testing is very time-consuming and costly. Conducting a valid tactics evaluation may take up to two years and hundreds of sorties. Here again "state-of-the-art" combat simulators can be extremely helpful in speeding up this process. The combat simulator used in evaluating the AMRAAM is a prime example of how combat simulators were used to simulate realistic combat engagements better than could have been done in the real aircraft because of range and safety restrictions. Tactics development, testing, and evaluation are too important to continue in the slow pace of only live mission testing. A realistic state-of-the-art combat simulator similar to the one used in the AMRAAM tests should be devoted full time to tactics testing and evaluations. Like training, tactics development is expensive, but it needs to be improved if the USAF is to increase its advantage over the Soviets.

THE U.S. fighter pilot community is at a critical crossroad. While the Soviets outnumber the United States and are slowly catching up in technology, our one remaining advantage is our fighter pilots. As has been shown, however, that human advantage is very fragile and even here the Soviets show signs of progress. Unfortunately, the human factor is one of the factors of the combat capability equation that has gained little attention in the U.S. Air Force and also little support in the budget battles. I believe that with some renewed high-level interest and a moderate infusion of money, the human factor can be significantly altered in the proper direction. It seems only natural that a fighter force with the most highly advanced aircraft, missiles, and radars should also have pilots to fly them who are second to none. In the air-to-air arena there is an old saying, "there is a time for energy and time for action." It's time for action!

Zaragoza, Spain



the classic approach

TRAIN HARD, FIGHT EASY: THE LEGACY OF A. V. SUVOROV AND HIS “ART OF VICTORY”

DR. BRUCE W. MENNING

OVER the last century, commentators and military historians have with few exceptions gravitated to two extremes in explaining czarist military success during the golden age of Russian arms, an era of seemingly endless victories running from the reign of Peter the Great (1689-1725) to that of Paul I (1796-1801). On the one hand, the academic school of interpretation has sought to explain martial triumph in terms of Russian adherence to commonly perceived and practiced principles of military art. On the other hand, the national (or Russian) school has sought explanation in underlying and uniquely Russian cultural factors.¹ Between these poles, other observers have occasionally labored to produce a synthesis that builds on the strengths of both approaches to achieve a balance between context and constancy.²

Against the overall background of historiographical controversy and compromise, the testimony of one of the era's chief—if not most important—actors, Generalissimo Aleksandr Vasil'evich Suvorov (1730-1800), remains especially instructive. In 1771, when forced to rationalize novel approaches to tactics and train-

ing in fighting the Polish Confederates, then-Major General Suvorov argued that his methods were justified in the light of Russian military progress against Prussia during the Seven Years' War. He noted that Frederick II, overrun from all sides, had lost soldiers drilled in the niceties, had been forced to throw replacements together like fish soup, and did not have time to drill them more than perfunctorily. In contrast, by 1761 the Russians were more than equal to their adversaries. The difference in Suvorov's eyes? Training. While Frederick had replaced experienced troops with hastily trained recruits, the Russians, having been deployed longer, reached a well-trained state. Consequently, the Prussians fell before the Russians, just as in 1709 the Swedes had fallen at Poltava before Peter the Great “who had drilled his troops more than the foreigners, whose own forces were incompletely trained.”³ Suvorov later insisted that each trained soldier equaled somewhere between three and ten untrained counterparts. In his words, training meant “light,” while lack of training spelled “darkness.”⁴

These assertions underscore the importance

which perhaps the greatest Russian military commander of all time ascribed to training. By 1771, a mixture of influences, including service in the ranks, combat experience, and tenure in various junior and senior command and staff positions, had begun to coalesce for Suvorov into the foundations of a comprehensive program for military action which underscored the fundamental importance of training to victory. In 1795, several wars and numerous campaigns after the brushfire conflicts of the 1770s in Poland, Suvorov would refine more than four decades of experience into a simple set of guidelines to govern the training and indoctrination of soldiers in the fundamentals of the military art.

His prescriptions, known as "The Art of Victory," were initially circulated in manuscript form, temporarily forgotten after his death, then published and reprinted eight times between 1806 and 1811.⁵ By the second half of the nineteenth century, the prescriptions had become a Russian military classic. Whatever the version, "The Art of Victory" subsequently became the font to which Russian and Soviet military trainers have returned repeatedly for information and inspiration. Because of their persistent influence, a review of Suvorov's training principles as they evolved to culminate in "The Art of Victory" promises insight not only into the Russian military past but also the Soviet military present.

Any discussion of Suvorov's training methods must begin with reference to context and impact. Suvorov entered active service with the Imperial Russian Army in 1748 at the age of eighteen, and the majority of his career coincided with the heyday of eighteenth-century linear tactics. This was a time in which armies of highly trained professionals equipped with smoothbore, flintlock muskets marched in column and fought on line in elaborately choreographed battles that at least metaphorically mirrored contemporary intellectual preoccupations with notions of order, symmetry, and rationalism.⁶ When Suvorov finally rose to

command in the 1760s and 1770s, he burst into this well-ordered world as an innovator, a field commander whose tactical and operational conceptions were often at variance with European military convention. In contrast with the languid methods and tactics of his day, Suvorov marched rapidly, struck unexpectedly, attacked seemingly helter-skelter from a variety of formations, and pursued relentlessly.⁷

Training made the injection of fury possible; what lent focus was a novel and complementary emphasis in the brief pages of "The Art of Victory" on mobility, flexibility, initiative, and agility. These and other aspects of his vision Suvorov summed up with reference to his famous triad—speed, assessment, and hitting power (*bystrota, glazomer, natisk*).⁸ With these words, he enjoined his officers and troops to move fast, size up situations quickly and accurately, then push headlong into the attack. Whether in combat against Polish rebels, Tatar tribesmen, Turkish janissaries, French revolutionaries, or Prussian grenadiers, Suvorov's stress on thorough preparation and speedy execution was sufficient to produce threescore major and minor victories, often in the face of hopeless odds. As Philip Longworth, Suvorov's most recent Western biographer, has noted, "he won far too frequently to be called lucky: he never lost."⁹

Although "The Art of Victory" dates to 1795, evidence shows that Suvorov first professed systematic views on training during the 1760s, when he returned from the Prussian campaigns to assume successive command of the Astrakhan and Suzdal infantry regiments. By 1765, he had worked out a successful training program, the "Suzdal Regulations," which served as a legitimate supplement to the official drill regulations of 1763. In consonance with circumstances and in agreement with regulations, in each succeeding command he sought to extend and institutionalize his program of systematic troop training. These elaborations and various discrete instructions would eventually culminate in "The Art of Victory." The

developmental aspect aside, the Suzdal Regulations already reveal the foundations of his training system: begin with an understanding of the soldier and his needs; recognize the necessity of creating under strong supervision a confident fighting man; develop a sense of individual and group identity; and engage in constant, progressive, and repetitive training under conditions gradually approaching those of genuine combat. The approach worked so well that already in the mid-1760s the Suzdalers were sufficiently well trained to attract imperial attention at summer maneuvers held near Tsarskoe Selo.¹⁰

For Suvorov, training began with the individual soldier. The task was to transform annual levies of raw and illiterate peasant conscripts into fighting troops. This meant making warriors of disoriented and disgruntled young men torn from their traditional village societies and pressed into what must have seemed a penal-like system of routine, regulation, ritual, and rigid subordination. While recent commentators have reminded us that many elements of village and barrack life coincided, soldierly existence held something new and alarming: calculated exposure to danger with the real possibility of giving "a life for the czar."¹¹ Suvorov faced this and other training challenges in characteristically direct fashion. In "The Art of Victory," he declared in words readily understandable to his recruits that, "if a peasant doesn't know how to plough, he cannot grow bread." The unmistakable military implication was that neither could an untrained soldier succeed in battle. Therefore, the master of training consciously set out to transform the lives of his peasant recruits to render the difficult possible and the unthinkable more palatable.¹²

While his intent was scarcely novel, his method was. He deemphasized corporal punishment, and before the training cycle ever started, Suvorov strictly prescribed organizational adherence to conditions which fostered maintenance of health, diet, and adequate living con-

ditions. Military physicians and commanders made daily checks on the status of troops and their bivouacs. Soldiers were never to sleep directly on the ground, meals were to include vegetables, water was to be boiled, and appropriate measures were taken to ensure field sanitation. In an age when skimping on rations meant extra income for the commander, Suvorov held his officers strictly accountable for the welfare of their troops. This concern produced palpable results in the form of decreased mortality and increased readiness rates. It also lowered requirements for training replacements and produced handsome returns in morale, which helped make sense of the system for the soldier, whether veteran or recruit. Denis Davydov, the Russian partisan hero of 1812, once remarked that Suvorov "put his hand on the heart of the Russian soldier and learned its beat."¹³

"The Art of Victory" reinforced the overall sense of concern by enjoining officers to "converse with soldiers in their own language." Emphasis fell on practical explanation and demonstration in terms understandable to the average soldier, and it was Suvorov's penchant—possibly a carry-over from his own service in the ranks—to spend time with the troops, sharing their jokes and campfires at odd moments while on campaign or hard at work in a training exercise.¹⁴

The commander's visits and his easy familiarity with troops did not imply lax discipline. On the contrary, Suvorov believed that military life as such could not exist without strict discipline and subordination. Suvorov was an avid student of the history of Rome, and he surely realized that the reintroduction of Roman discipline was in some measure responsible for what few advances were possible in an age of stagnant technology. He once noted that, "all constancy of military discipline is based on obedience." He added that, "From obedience comes the careful and easy carrying out of every man's responsibility and his pride in its perfection; and in this there lies the whole essence of military order." He enjoined his troops to dress

and act like soldiers and held officers and non-commissioned officers directly responsible for the conduct of their men. Under peacetime conditions, Suvorov expected his men to get on with the local populace, whether in friendly or occupied territory, to adhere strictly to military regulations, and during wartime to maintain the discipline and presence of mind that emphasized mission and spelled success. If a cavalryman during the pursuit stopped to loot a fallen foe, his officer was to shoot him. If a senior officer saw one of his juniors not enforcing the regulations, the junior man was to be placed under immediate arrest.¹⁵

The stress on conventional discipline as the soul of military life should not obscure Suvorov's emphasis on enthusiasm and the positive aspects of a systematic approach to training which instilled self-confidence. He recognized the importance of religious sentiment in reinforcing a common identity and loyalty to shared values. He also realized that attainment of his training objectives rested on the degree to which his methods developed men confident in their own capacities and abilities to succeed, even under the most trying conditions of battle. He ordered his men not to cry out in battle as did the "barbarians," and he restricted officers and noncommissioned officers to shouting orders and his troops to chanting rousing "hurrahs" in unison. What he wanted his soldiers to project both to the enemy and to themselves was a sense of self-contained control, a sense of disciplined will power that led inevitably to victory.¹⁶

But how to build self-confidence in men long accustomed to life at the lower ranges of the social scale? Once having assured his men of their welfare and having stressed the importance of discipline and enthusiasm, the next step was to undertake actual training. Explanation was always accompanied by demonstration. And the order of training was always done from the simple to the more complex. The process was to be practical, progressive, and systematic. The new recruit received individual

instruction on items of conduct, dress, and toilet. There followed rudimentary introduction to the manual of arms. Then came training in what the Russians called "evolutions and maneuvers," first at the equivalent of squad level, then at platoon and company level. Primary emphasis fell on the ability to change formations, to move from march order into appropriate battle order in the most expeditious manner. Like another eighteenth-century military genius, Marshal Maurice de Saxe, Suvorov no doubt believed that "all the secret of maneuvers lies in the legs." Although Suvorov preached strict adherence to regulations in garrison, in the field he was less concerned with appearance, evenness of step, and glitter, than he was with the troops' ability to move fast and to change formations readily.¹⁷

Agility and swiftness derived from physical conditioning, and although Suvorov himself was not of robust physique, he subjected his troops to rigorous conditioning routines. They learned to march rapidly over long distances, to swim, to traverse difficult terrain, to leap over obstacles. With conditioning came endurance and pride of accomplishment. With conditioning also came speed. He ceaselessly trained his soldiers to cover vast distances with little rest. Not surprisingly, rigorous training paid handsome dividends: in 1769 on the way to Brest, his Suzdalers covered 275 miles in 11 traverses, an average march pace of nearly 26 miles per day; in 1799, during the summer heat of the Italian campaign, he once marched nearly 53 miles in 36 hours, then fought a major three-day engagement. Not without reason does Longworth remark that Suvorov "was obsessed with the idea of speed."¹⁸

Within the tactical and operational context, this phrase is no exaggeration. The Russian Generalissimo once reminded an Austrian ally, "Money is dear; human life is still dearer; but time is the dearest of all." Suvorov prized speed because it put time on his side and enhanced the possibility of surprise. "One minute," Suvorov asserted, "decides the outcome of a battle,

one hour the success of a campaign, one day the fate of empires. . . . I operate not by hours but by minutes." In "The Art of Victory," he wrote, "The enemy sings, walks about, waits for you from the open field, and you hit him from beyond the steep mountains and silent forests, like snow on the head." At the heart of Suvorov's tactical system lay the realization that his forces fought "not with numbers but with skill," and that "speed and surprise substituted for numbers [while] hitting power and blows decided combat."¹⁹

Emphasis on the legs did not imply that Suvorov neglected the manual of arms, only that he required less precise movements in drill with muskets. In addition to being able to shoulder the weapon in an appropriate fashion, Suvorov demanded two things: rapid fire drill and expert bayonet drill. Emphasis fell on rapid fire not because of a concern with fire volume, but because of a concern that soldiers learn to load in the most expeditious manner possible. He wanted his men to fire slowly and accurately. In close-in battle, he counseled that it was better to retain a bullet in the barrel (for emergency) and rely first of all on the bayonet. If three Turks attacked a Russian in battle, he was to bayonet the first, shoot the second, and bayonet the third.²⁰

Suvorov's prescription to place maximum faith in the bayonet was well founded, given the technology of the times and his conception of spirited, offensive action. Russian soldiers were armed with the .70 caliber smoothbore, flintlock musket, whose rate of fire under ideal circumstances might be three or four shots per minute. Under conditions of genuine fire action, trained formations might retain discipline and coherence for several minutes, after which the noise, smoke, and confusion of battle gradually gained the upper hand, causing fire volume to drop off appreciably. At the same time, firing mechanisms were fragile and effective ranges short. A broken flint or a pause to reload immediately transformed the musket fitted with bayonet into a pike and what had

been a fire fight into hand-to-hand combat. Little wonder that an American of the same era, Benjamin Franklin, once seriously proposed equipping the Continental Army with longbows! A cumbersome and fragile technology prompted Suvorov to stress the importance of the bayonet: a soldier must know how to shoot, but in the end cold steel was his most reliable friend. Or as Suvorov put it in language readily understandable for the average soldier, "The bullet's a fool, the bayonet's a fine lad."²¹

Suvorov is often credited with fostering a "cult of the bayonet" which would return to haunt the Russians a century later, when M. I. Dragomirov came to stress the importance of cold steel at the expense of tactical and technical innovation. Issues of technological context aside, critics of cold steel tend to ignore the psychological factor. Victory in battle ultimately represents a triumph of will, and there is no better way to demonstrate outright mastery than to dominate physically with cold steel. While no one would argue that modern technology has progressively imposed greater limits on the application of cold steel, even modern soldiers must demonstrate the capacity to impose their collective will on the enemy, if need be, at close quarters. Suvorov understood this, the armies of the French Revolution affirmed it, and better trainers still seek to instill the same kind of resolve.²² Like other prophets of training, including Dragomirov and Ardant du Picq, Suvorov was a student of soldier psychology and battle stress.

Less well understood than outright emphasis on cold steel was the degree to which Suvorov also viewed a disciplined resort to fire as an imposition of will. Withholding fire could be more unnerving to the adversary than firing a volley without appreciable effect, which he found only "emboldened the barbarians" who then closed for the kill while Russian soldiers were reloading. When Suvorov's soldiers resorted to bullets, the fire of individuals and formations had to be mutually reinforcing. It also had to be accurate: there was no discharg-

ing of weapons with the vague peasant hope that "the bullets would find the guilty ones."²³ Suvorov trained each small unit to designate several sharpshooters, whose task it was to fire at will on advancing enemy horsemen and officers. Lest anyone think that Suvorov failed to emphasize the importance of firepower, he ordered his soldiers to carry 100 cartridges each into their engagements in the south steppe. For the eighteenth century, this was a high basic load of ammunition. It was also Suvorov—the commander usually credited with emphasizing the bayonet over the bullet—who said, "Infantry fire leads to victory."²⁴

Emphasis on the complementary nature of firepower and cold steel underscored the importance of the offense in training and practice. Officers and soldiers alike were taught always to think in terms of going forward, of pressing the advantage. For Suvorov, retreat was synonymous with treason. The word was never mentioned in training. Officers who spoke of it directly or in veiled terms were severely upbraided. "A step backward is death," he said. In training there was no alternative to going forward, and this was the expected standard in combat. In battle, he would not even permit one formation to replace another, lest relief be interpreted as permission to withdraw.²⁵

This approach fostered a natural preoccupation with movement and mobility. When engaged or close to engagement, Suvorov insisted that his subordinates keep their formations advancing on the enemy. This gave the soldiers something to think about other than their own fears and presented the enemy with the difficulty of closing with a moving target. At the same time, outside the immediate realm of the battlefield, Suvorov emphasized rapidity of movement, a departure which reinforced his emphasis on speed. During a period of static technology, even incremental improvements might produce decisive results, and this was surely the case with Suvorov's philosophy of mobility. Whenever possible within the parameters of regulations, he ordered a lighten-

ing of equipment and uniforms. He wholeheartedly supported Prince G. A. Potemkin's military dress reforms of 1784, which represented a utilitarian departure from earlier experiments with Prussian uniforms. Of course, the object was to reduce maintenance and facilitate rapid movement.²⁶

To attain an acceptable degree of proficiency, training had to be continuous and supervised. For Suvorov, training was a constant concern, regardless of season and circumstance. His men trained in winter and summer. They trained even while on campaign in a ceaseless quest to attain perfection. On cordon duty in small detachments, it was easy for commanders to grow lax in their requirements and for the soldiers to grow dull on daily outpost and guard duty. The antidote was to insist that soldiers drill even in small garrisons. What made them take the antidote was direct officer supervision. Suvorov both exhorted and ordered his officers to take direct interest in training. In an era when officers relegated tedious aspects of troop duty to their sergeants, and when leaders exercised their soldiers only in fair weather, Suvorov's actions represented a substantial departure from contemporary practice.²⁷

In addition to emphasis on progressive and continuous training, Suvorov insisted that training should have focus and utility. Another of his maxims was that "troops be taught only that which was necessary in combat." His practical approach to the manual of arms and rapid loading were clear indications that embellishments were neither necessary nor tolerated. At the same time, he insisted that "every soldier know his maneuver."²⁸ This meant that training should be adequate to teach every man what was crucial for him to perform in combat. Ordinary drill, maneuvers, and exercises were sufficient to impart the most basic combat skills. However, circumstances sometimes required departure from routine, as for example, when encamped before the Turkish fortress at Izmail in 1790, he ordered his engineers to

build mockup sections of the fortress walls that his soldiers were to storm. Thanks to careful rehearsal, before Suvorov ever attacked, each man knew his place in the battle order, and each knew his assigned task.²⁹ At best, battle held surprise, and Suvorov's inclination was to use surprise against the enemy while training his men to be proof against the unexpected.

Perhaps the best insurance against the unexpected was rigorous insistence on the pursuit of realism in maneuvers and field exercises. Despite his own physical shortcomings, Suvorov gloried in leading his men into summer exercises, in which they maneuvered in larger formations and in which officers gained experience in using the three combat arms together. During the eighteenth century, Russian military regulations prescribed several kinds of exercises, each of which usually began with deployment from march formation into the battle formation, changing direction of attack or advance, then returning to march formation. In accordance with emphasis on his triad, Suvorov sought accelerated movement to contact, a swift but accurate assessment of the situation, and immediate attack. Day after day, his troops would practice rapid approach marches, deployment from the march either on line or in squares, then advance into attack. Formations and tactics always depended on the nature of the terrain and the anticipated enemy. This flexible approach to deployment Suvorov clearly summed up in his 1778-training instructions to the Crimean and Kuban Corps: "Against regular forces as in the Prussian war, against irregulars as in the last Turkish war."³⁰ Sometimes the exercises were one-sided, with no adversarial force; at other times his troops attacked a simulated enemy.

At its best, however, training approached conditions of real combat in rigorous two-sided exercises pitting one force against another. In this respect, Suvorov's contribution to realism, indeed, the *pièce de résistance* of his training system, was the "attack through" (*skvoz-*

naia ataka). Apparently, he had devised this exercise somewhat later than his experiments with the Suzdal Regiment during the 1760s. From the march he divided his troops into two opposing forces, then ordered them to deploy in formations facing each other 200 to 250 paces (canister range) apart. The two sides commenced to attack each other, stopping at prescribed intervals to fire blank volleys against their mock adversaries and finally launching a headlong bayonet assault. To retain momentum as the combatants approached each other, Suvorov instructed his soldiers not to slow their pace, but at the last moment to step to the right half a pace, raise their weapons, and pass through the narrow gaps in opposing files. A short distance beyond the line of mock contact, the soldiers wheeled about to face their opponents once again. The exercise was repeated until retention of cohesion, momentum, and hitting power became automatic.³¹

To approximate the conditions of combat as closely as possible, Suvorov often incorporated cavalry and artillery into his "attack through" exercises. The crash of blank cannon fire, the drumming of hoofs, the flash of bayonet and saber, the din and smoke of mock battle—all injected a heavy dose of realism into the exercises. Suvorov believed that there was no better way both to instruct cavalry in the intricacies of attacking infantry and to instill in infantry the necessary steadiness to ward off cavalry.

Realism also multiplied the possibility of danger, and eyewitnesses record injuries and even fatalities resulting from the "attack through" exercises. In 1794, Denis Davydov recorded Suvorov's reaction to his subordinates' concern over the possibility of injuring his troops in training. "God be with them," he muttered, "I will kill four, five, ten men; [but] I will teach four, five, ten thousand."³² Thus, Suvorov accepted the probability of injuries and even fatalities but rationalized costs by asserting that minor losses in today's training would prevent far greater ones in tomorrow's combat. Indeed, records in which Suvorov re-

peatedly asserted his concern over his men's welfare reveal that he held their well-being in high regard. Trained soldiers were simply too valuable to lose to noncombat causes. At the same time, however, rigorous training was the best insurance that they would survive in combat and emerge victorious. Far from being the uncaring brute, Suvorov placed his emphasis on the ultimate concern—getting his men through combat successfully.³³

Realistic exercises and retrospection provided the opportunity to instruct officers in their roles and missions. He urged his officers to read history and from the past to choose military heroes whose careers were worthy of emulation. For Suvorov, military history was a school for tactical instruction. "Without the beacon of history—tactics gropes in the dark," he said.³⁴ Whether by history or after-action reviews, he emphasized his officers' direct supervisory role in the conduct of training. At the end of each day's exercise, Suvorov would call his officers together, present a common-sense evaluation of the lessons demonstrated, point out areas that needed improvement, and dole out equal quantities of praise and admonition. Although he was never known to be an easy taskmaster, he was unsparing in his praise of those who discharged their duties intelligently and conscientiously.³⁵

THE purpose of all the training? The intent was to create disciplined soldiers who took strength from a firm sense of their own identities and loyalties, and who retained confidence in their ability to succeed in combat because they were sure of themselves, their roles, and their leaders. One European military observer summed up the situation in 1799 after observing the Russians train in northern Italy. He said that "the last soldier who falls under [Suvorov's] influence knows in practice and theory his job in combat better than it is known in any European army in peacetime. . . . And if a man is convinced that surprise is impossible,

and if in addition he knows what to do in his own modest sphere—he cannot be defeated, he cannot but be victorious."³⁶ This orientation, when coupled with Suvorov's triad of speed, assessment, and hitting power, went a long way to explain the success of Russian armies which fought under the gnome-like generalissimo who would subsequently become idealized and idolized in Russian and Soviet military history.

And, indeed, the lessons have not been lost on subsequent generations. Those who fought with Suvorov kept his memories and methods alive, if only for a time. By the end of the 1830s, a new generation emerged to relive the master's campaigns and suggest reforms in his spirit. By the 1860s, isolated disciples such as D. A. Militin gave way to a whole school of admirers and imitators led by the indefatigable M. I. Dragomirov, one of the great training specialists of modern military history. Although Dragomirov exaggerated the significance of the bayonet under modern battle conditions, he did much to improve the quality of training in a mass-conscript army.³⁷ In 1918, Lenin prescribed that the principal instructional articles of Suvorov's "Art of Victory" be incorporated into the Handbook of the Red Army Soldier (*Knizhka krasnoarmeitsa*). Suvorov remained a constant source of inspiration both through the trying period of military modernization in the 1920s and '30s and during the maturation of Soviet military art in the Great Patriotic War. His example remains an important point of departure for contemporary specialists on training, including such prominent figures as Colonel General M. A. Gareev.³⁸ And it could hardly be otherwise. In the words of A. A. Komarov, Suvorov's importance lies not only in his emphasis on progressive training and solicitude toward the soldier but also in the stress on simplicity, clarity, and realism. Komarov concludes that, "such aspects of his pedagogical system . . . sound fully contemporary."³⁹

The classics are always modern. To understand Suvorov from an American perspective,

it would be as if a single man combined within himself the military-pedagogical attributes of Baron F. W. von Steuben, Francis Marion, and Nathanael Greene, and then demonstrated that the same attributes remain eternally appropriate to modern circumstances.

Such trainers and fighters are the stuff of legend, and indeed, one Russian legend has it that Suvorov never really died, that he rests in a deep sleep to awaken when Russia is threatened by grave military danger.⁴⁰ To the extent that response to military challenge in an age of modern, mass armies rests on the ability either to field large numbers of trained soldiers immediately or to create them fast—as in the Soviet Great Patriotic War—perhaps the spirit of

Suvorov does live on. Certainly his training principles remain relevant two centuries after his death—and not just for Russians.

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Author's note: I acknowledge assistance in gathering research materials from the Andre L. de Saint-Rat Collection of Russian History and Culture at the King Library of Miami University. All dates are given according to the Julian calendar, which in the eighteenth century lagged behind the Gregorian calendar by eleven days; further, the modified Library of Congress system is used throughout to transliterate Cyrillic characters into Latin equivalents. The phrase, "Train hard, fight easy," is paraphrased from Suvorov and suggested by Philip Longworth, whose *The Art of Victory* (New York, 1965) remains the standard English-language biography of Suvorov. For a recent and concise treatment of "The Art of Victory" in Russian, readers are referred to M. A. Rakhmatullin's "Generalissimus A. V. Suvorov. Ego iskusstvo pobezhdat'," *Istoriia SSSR*, September-October 1980, pp. 64-90.

Notes

1. The origins of the academic and national schools are surveyed in L. G. Beskrovnyi, *Ocherki po voennoi istoriografii Rossii* (Moscow, 1962), pp. 185-88; see also, Peter von Wahlde, "Military Thought in Imperial Russia," Ph.D. dissertation, Indiana University, 1966, pp. 115-16.

2. Christopher Duffy, *Russia's Military Way to the West* (London, 1981), pp. xiii, 234; Bruce W. Menning, "Russian Military Innovation in the Second Half of the Eighteenth Century," *Military and Society*, May 1984, pp. 24-25, 36-37; cf. A. A. Komarov, "Razvitie takticheskoi mysli v russkoi armii v 60-90-kh godakh XVIII v.," *Vestnik Moskovskogo universiteta, seriya 8, Istoriiia*, No. 3 (1982), pp. 62-63.

3. A. V. Suvorov to I. I. Veimam, 3 March 1771, G. P. Mescheriakov, editor, *A. V. Suvorov, Dokumenty*, four volumes (Moscow, 1949-53), vol. I, pp. 366-67; this series remains the most comprehensive collection of primary materials on Suvorov.

4. These assertions are drawn from "The Art of Victory" (*Nauka pobezhdat'*) as reprinted in *ibid.*, vol. III, pp. 501-08, especially p. 508.

5. *Nauka pobezhdat'* means literally the "science" of victory; however, the eighteenth-century usage is better translated by the contemporary word *art*, a preference supported by Rakhmatullin's choice of *iskusstvo* (art) in the title of the author's acknowledgment.

6. On the relationship between military art and intellect, see Lee Kennett, "Tactics and Culture: The Eighteenth-Century Experience," *International Commission of Military History, ACTA No. 5* (Bucharest 10-17 VIII 1980) (Bucharest, 1981), pp. 152-59.

7. V. A. Zolotarev et al., *Vo slavu otechestva Rossiiskogo (Razvitie voennoi mysli i voennogo iskusstva v Rossii vo vtoroi polovine XVIII v.)* (Moscow, 1984), pp. 226-31.

8. "Nauka pobezhdat'," *Dokumenty*, III, pp. 506-07; *Bystrota* is easily translated as "speed"; *glazomer* means literally "measure with the eye," or more simply, "estimate" or "assess." *Natishk* corresponds to "impulsion" in the sense of striking with momentum; here Philip Longworth's "hitting power" seems a most appropriate translation.

9. Longworth, *The Art of Victory*, p. 11.

10. L. G. Beskrovnyi, *Ocherki po istochnikovedeniia voennoi*

istorii Rossii (Moscow, 1957), pp. 138-39; on the "Suzdal period," see A. Petrushevskii, *Generalissimus Kniaz' Suvorov*, three volumes (St. Petersburg, Russia, 1884), vol. I, pp. 41-49.

11. Cf. John Bushnell, "Peasants in Uniform: The Tsarist Army as a Peasant Society," *Journal of Social History*, Summer 1980, pp. 566-69.

12. "Nauka pobezhdat'," in *Dokumenty*, vol. III, p. 508.

13. Quoted in I. Krupchenko, "A. V. Suvorov i voennoe iskusstvo," *Voенно-istoricheskii zhurnal*, 1980, p. 72; see also, "Nauka pobezhdat'," and Order (of A. V. Suvorov), 1774, respectively in *Dokumenty*, vol. III, p. 507, and vol. I, p. 685.

14. "Nauka pobezhdat'," *Dokumenty*, vol. III, p. 504, see also John L. H. Keep, *Soldiers of the Tsar: Army and Society in Russia 1462-1874* (Oxford, 1985), p. 211.

15. Order of A. V. Suvorov, 18 September 1778, and Instruction of A. V. Suvorov, 12 October 1787, respectively in *Dokumenty*, vol. II, pp. 122-23 and 354-55.

16. Order of A. V. Suvorov, 21 December 1787, *Dokumenty*, vol. II, pp. 374-75.

17. A. A. Komarov, "Velikii polkovodets i pedagog," *Prepodovanie istorii v shkole*, June 1980, p. 17; cf., William H. McNeill, *The Pursuit of Power: Technology, Armed Force and Society since A.D. 1000* (Chicago, 1982), pp. 132-33.

18. Longworth, *The Art of Victory*, p. 36; see also N. A. Orlov, "Taktika Suvorova," *Suvorov v soobshcheniakh professorov Nikolaevskaia akademii general'nogo shtaba*, two volumes (St. Petersburg, Russia, 1900-01), vol. II, pp. 248, 250.

19. Krupchenko, "A. V. Suvorov i Voенноe iskusstvo," p. 73; see also "Nauka pobezhdat'," *Dokumenty*, vol. III, p. 506. Rakhmatullin, "Generalissimus A. V. Suvorov," p. 66; and A. V. Suvorov to G. Bel'gard, 20 May 1799, *Dokumenty*, vol. IV, p. 116.

20. "Nauka pobezhdat'," *Dokumenty*, vol. III, p. 505.

21. *Ibid.*, vol. III, p. 504; see also Orlov, "Taktika Suvorova," p. 251.

22. Thomas V. Moseley, "Evolution of the American Civil War Infantry Tactics," Ph.D. dissertation, University of North Carolina, 1967, pp. 214-15.

23. Order of A. V. Suvorov, June 1770, *Dokumenty*, vol. I, p. 271.

24. A. V. Suvorov to N. A. Zubov, 26 May 1788, *Dokumenty*, vol.

II, p. 110.

25. A. N. Kochetkov, "Takticheskie vzgliady A. V. Suvorova," in *Razvitie taktiki russkoi armii*, compiled by D. V. Pankov (Moscow, 1957), pp. 89-90; "Nauka pobezhdai'," *Dokumenty*, vol. III, p. 502.

26. A. V. Suvorov to V. S. Popov, 11 October 1787, *Dokumenty*, vol. II, pp. 347-48; Order to Kuban Corps, 16 May 1777, *Dokumenty*, vol. II, p. 64.

27. Order of A. V. Suvorov, 9 December 1771, *Dokumenty*, vol. I, p. 474.

28. "Nauka pobezhdai'," *Dokumenty*, vol. III, p. 504.

29. I. I. Rostunov, "Shturm Izmaila," *Voenno-istoricheskii zhurnal*, December 1965, p. 114.

30. A. I. Gippius, compiler, *Obrazovanie (obuchenie) voisk in Stoletie Voennogo Ministerstva*, edited by D. A. Skalon, 48 parts in 13 volumes (St. Petersburg, Russia, 1902-14), vol. IV, part 1, book 2, section 3, p. 118; in "Nauka pobezhdai'," *Dokumenty*, vol. III, p. 505, the phrase is "by line against regulars, by squares against the infidels."

31. M. A. Gareev, *Obshchevoiskovye ucheniia* (Moscow, 1983), pp. 31-32; "Nauka pobezhdai'," *Dokumenty*, vol. III, pp. 502-03.

32. Denis Davydov, *Voennye zapiski* (Moscow, 1982), p. 32.

33. See, for example, Order of A. V. Suvorov, 1792, *Dokumenty*, vol. III, pp. 74-75.

34. Quoted in Krupchenko, "A. V. Suvorov i voennoe iskusstvo," p. 72.

35. Gareev, pp. 29-30.

36. Quoted in *ibid.*, p. 35.

37. L. A. Zaitsev, "Voenno-pedagogicheskie vzgliady M. I. Dragomirova," *Voenno-istoricheskii zhurnal*, September 1985, pp. 72-73.

38. Krupchenko, "A. V. Suvorov i voennoe iskusstvo," p. 71; Gareev, p. 29.

39. Komorov, "Velikii polkovodets i pedagog," p. 16.

40. N. Orlov, "Suvorov—russkii voennyi deiatel'," in *Suvorov v soobshcheniakh professorov Nikolaevskoi akademii general' nogo shtaba*, vol. II, p. 309; see also Keep, *Soldiers of the Tsar*, p. 212.



You've got the stick

THE DANGER OF MIRROR-IMAGING

COLONEL LLOYD T. MOORE, JR.

WHEN they think about them at all, Americans tend to have certain perceptions about the Soviet people and their leaders. Probably the most common, if terribly naive, holds that, except for a few unimportant ideological differences, the Soviet leaders are much like us. If world leaders would only sit down and talk, all our differences could be resolved and the threat of war would disappear.

The antithesis of this view holds that the entire Soviet Union is one vast prison camp filled with terribly unhappy people who aspire to our way of life and, denied it, will someday soon rise up in counterrevolution, oust their evil leaders, and establish a capitalist democracy on the model of the United States. Both of these perceptions are hopelessly naive and erroneous. Fortunately, neither is widely held by intelligent people in American military and civilian positions of leadership.

This does not mean our leadership is immune from problems in its perception of the Soviet Union. In fact, the major problem that besets our political and military leaders is complacency, and because of its wide acceptance at the higher levels, it is even more dangerous than those mentioned above. The vast majority of our leaders have, at some point in their education or professional lives, learned

certain basic truths about the Soviet Union and, since then, have read some articles or books and received some briefings and, therefore, feel fairly sanguine that they have a reasonable grasp of "what makes the Soviets tick." It is this assumption of knowledge on the part of our leadership that is so insidious, because a direct outgrowth of the assumption is a trait that intelligence professionals call "mirror-imaging"; that is, the assumption that because we do something in a certain way, the Soviets will do it in the same way or, conversely, because we would not do something, an enemy likewise would not. Just what are the dangers associated with "mirror-imaging"?

History is replete with examples wherein the armed forces of a society and, sometimes, the entire society itself was wiped out because the leadership of that society—both political and military—failed to have an adequate understanding of the society and armed forces that destroyed it. The Mongol hordes, for example, used this lack of awareness to their advantage in spreading terror from the China Sea to the Danube. Had the Aztecs (or the rest of the native Americans, for that matter) been aware of what motivated the European invaders, it is virtually a certainty the Europeans would have had more difficulty in gaining a foothold in

this hemisphere. Had Hitler and his general staff been more conversant with the reasons for Napoleon's fate in Russia in 1812, Operation Barbarossa might have been a success.

Contemporary reality has even more concrete examples. How many of our leaders are *really* aware of the asymmetries in arms control verification, for example? How many are truly conversant with the argument that the lack of success in the economic arena makes the Soviets *less* anxious to reduce the arms race rather than more so? On an even simpler level, how many are aware of what the Soviets mean by the word *peace*? How many are even aware of the position of the military officer in Soviet society; the difficulties the Soviets face because of their geography; the reasons for the xenophobia that so characterizes Soviet society; or the means with which the Soviets project power

throughout the world short of military force?

If the reader were to assume the answers to these questions are the same as those that would pertain if applied to American society, he would be mirror-imaging and he would be not only dead wrong, but he could put himself in the position of making a decision that could have a far-reaching deleterious effect on America's interests. When our military leaders develop operations plans, when our congressmen and senators vote on military budgets and foreign aid, when senior members of the administration hold arms talks with the Soviets, this lack of awareness of the Soviet Union can obviously be truly dangerous.

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Letters

Lee's Civil War dispatches

In Major Raymond C. Harlan's article, "Arts and the Man," in your May-June 1986 issue, it is implied that General Robert E. Lee was a man "with no record of artistic endeavor." On Lee's behalf, let me note that he was a historian and journal-keeper of the first order. His medium was the "official dispatch," used by newspapers of the period to expand their coverage of the war. In Douglas S. Freeman's, *Robert E. Lee, A Biography* (4 volumes, New York, 1934-35), it is noted that Lee's studious nature aided in making the multitude of official dispatches in the Civil War possibly the best of any general's. The press liked Lee's dispatches because "he preferred

where possible to form a continuous narrative and refused to dramatize a story." That was indeed a rarity among Civil War dispatches.

Incidentally, Lee creatively used the newspapers of the North by reviewing them for possible intelligence value. Lee liked a particular *Philadelphia Inquirer* correspondent because that reporter "knew what he reported and reported what he knew." (See Frank Luther Mott, in *American Journalism*, 93d edition, 1962.) Outraged General William Sherman of the North knew that generals such as Lee were in fact gathering helpful information from newspaper articles and was so upset with one correspondent,

Thomas Knox of the *New York Herald*, that he had him arrested and held as a spy. Sherman wrote the press caused "infinite harm" to his military undertakings and that "the only two really successful strokes out here have succeeded because of the absence of the newspapers, or by throwing them off the trail."

*Captain Dwight C. Daniels, USAF
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Army V/STOL aircraft for close air support revisited

In the Letters department of the May-June 1986 issue, Major Thomas A. Ryle believes V/STOL aircraft are suitable only for close air support (CAS). He also believes the CAS mission should be given to the U.S. Army. As these views are shared by a number of people, including many Air Force officers, it is worthwhile to look at his suggestion in greater detail.

Major Ryle advocates Army control so ground commanders would have assured CAS. There is a danger that acting on this suggestion would repeat the error others have made not only with air power but also with tanks and artillery. Permanent distribution of air assets to assure each unit commander has support tends to prevent timely force concentration. Also related to this suggestion is Major Ryle's belief that dispersing V/STOL aircraft prevents effective control and, therefore, these aircraft are not suitable for missions other than CAS. While there are problems inherent to dispersal, military experience clearly shows dispersed forces can be effectively controlled (e.g., surface-to-air missiles and ground-launched cruise missiles).

Like many other U.S. Air Force officers, Major Ryle rather lightly dismisses the air-to-air capability of V/STOL aircraft. This attitude disregards the proven air-to-air capability of the British Sea Harrier and USMC AV-8B. It also fails to appreciate the potential of future developments, such as arming the Sea Harrier with Hughes AIM 120 advanced medium-range air-to-air missiles or building a supersonic V/STOL aircraft.

Army control of V/STOL aircraft, Major Ryle believes, would make it easier to work out airspace control problems and simpler to coordinate ground-based air defenses. This suggestion ignores the fact that high-performance V/STOL aircraft do not fly like helicopters except during takeoff and landing.

Nor does Major Ryle explain how his suggestion would make the air component commander's air space control and air defense responsibilities any simpler.

Giving up CAS, according to Major Ryle, would enable the Air Force to concentrate on missions like counterair and interdiction for which its aircraft are best suited to perform. This suggestion reflects a belief that there should be major distinctions between fixed-wing aircraft designed for CAS and interdiction. However, the requirement for design differences is exaggerated, since it is difficult to define precisely the differences between CAS and battlefield air interdiction. (For example, what exactly is meant by the terms close proximity and near-term threat?) What is more, the threat environment, types of munitions, and delivery accuracy required often are identical for both missions.

Finally, Major Ryle dismisses the problem of air base survivability because, he asserts, counterair and interdiction missions are far less dependent on proximity to the front (than CAS) and can be conducted quite successfully from more remote bases. I most emphatically disagree. Major Ryle should reread my article "Improving Force Flexibility through V/STOL" in the January-February 1985 issue. Distance from the battle often may not greatly increase survivability, however, it does incur numerous penalties including: decreased responsiveness, fewer sorties for a given force structure, less usable payload, short-time on target, and larger, more expensive and, possibly, less survivable aircraft. Air refueling may help, but it is not a perfect solution as it introduces other handicaps, including making operations more complex.

I agree with Major Ryle that we must overcome parochialism. However, the answer is not by giving up missions that appear to be "tied to the ground forces." Air Force officers must recognize the dangerous illusion of such a goal. In modern warfare, the activities of air and ground forces are inexorably tied to one another.

*Lieutenant Colonel Price T. Bingham, USAF
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more comments about creative thinking in the Air Force

I would echo the comments of Jerome G. Peppers, Jr., in the Letters department of the July-August 1986 *Review* and would add my own comments from a junior officer's perspective.

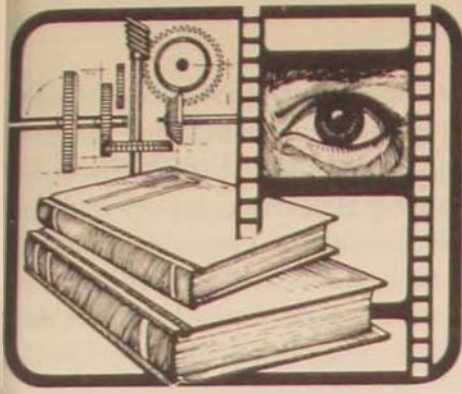
How often in the study of Air Force history is our attention drawn to the heroic efforts of Billy Mitchell in advancing the cause of air power, especially heroic in that his urgings were contrary to then the "official policy." Don't the objectives of Project Warrior urge us to understand and emulate such efforts?

But how infrequently, if at all, in the present day do we see articles in our professional journals that question official policy? Shouldn't we encourage our officers to responsibly debate current doctrine and put our decisions on air power to intellectual test?

Is the wisdom of hauling tanks to battle in air planes unquestionable? Should we indeed spend millions in purchasing new strategic missiles, only to put them in silos that are already in the Russian gunsight? It would be reassuring to believe that such policies could be tempered in the crucible of informed debate.

It would be reassuring to believe that, to paraphrase a famous quote, "Ours is to reason why . . . The better we'll do, the fewer of us will die."

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books,
images, and
ideas

FROM STALINGRAD TO BERLIN: STALIN'S WAR

DR. JOHN T. GREENWOOD

A CAREFUL reading of John Erickson's *The Road to Berlin* will immediately provide a better understanding of current Soviet military power, whose roots lay embedded in the bitter years of the Great Patriotic War, the Soviet Union's war against Nazi Germany from June 1941 to May 1945.† It is a lengthy and difficult book but one that American military officers should definitely put on their "must be read" list of professional literature.

The Road to Berlin is the second of Erickson's two volumes that recounts "Stalin's war with Germany." His thoroughly researched account melds the planning and conduct of military operations with diplomatic relations, the development of military organization and technology, and the personal interactions among the military and political leaders clustered around Joseph V. Stalin, the Supreme Commander. He carries the war from the destruction of the German Sixth Army at Stalingrad to the final battles for Berlin and Prague, where the book rather abruptly ends on 9 May

1945. Unfortunately, the significance of the wartime experience and its impact on the postwar development of the Soviet Armed Forces are not evaluated.

Both *The Road to Stalingrad* (1975) and his earlier, out-of-print classic, *The Soviet High Command, 1918-1941* (1962) should be read in conjunction with *The Road to Berlin* to gain maximum benefits from Erickson's knowledge and insights. His aim in this latest book is to evaluate Stalin as a war leader within the context of ". . . the properties of the man and the performance of the system—both operating under maximum stress. . . ." Erickson generally succeeds in attaining his objective but not without some significant problems along the way.

He superbly handles the leading Soviet military personalities; the planning of military operations at the level of Stalin, the Stavka (Staff) of the Supreme High Command, and the Army General Staff; and the often perverse and perplexing twists and turns of the Allies' wartime

†John Erickson, *The Road to Berlin: Continuing the History of Stalin's War with Germany* (Boulder, Colorado: Westview, 1983, \$42.50), 877 pages.

diplomacy, especially regarding Poland. The author's excellent descriptions of Soviet military planning in particular show the developing strategic, tactical, and logistical skills of the military leadership, while bringing out the interplay of the strong personalities who dominated the Soviet command echelons during and after the war. Georgii K. Zhukov, Ivan S. Konev, Rodion Ya. Malinovskii, N. F. Vatutin (died of wounds in 1944), A. M. Vasilevskii, A. I. Antonov, K. K. Rokossovskii, and others receive significant coverage, but the principal character always remains Joseph V. Stalin, the supreme political and military authority.

The picture of Stalin as the Supreme Commander is an illuminating portrait of the supreme politician and war leader who trusted and confided in no one and manipulated everyone. He carefully watched his field commanders, rewarding those who succeeded and punishing those who failed or were even thought to have failed. After his personal intervention caused some costly battlefield reverses early in the war, Stalin came to appreciate and heed his military advisers and commanders. Although only as a wartime exigency, he tempered his distrust of the professional soldiers and had limited his meddling with the Stavka and military operations by the time of Stalingrad.

Stalin largely extemporized a command structure around himself to control the nation and the conduct of the war. He directed the efforts of the State Defense Committee (GKO), his personal Stavka of the Supreme High Command, and the Army General Staff that did the detailed operational planning. He constantly conferred in person and by telephone with his Stavka, the General Staff, and field commanders, cajoling them, arguing, threatening, and at the same time listening to their advice.

The current Soviet political and military leadership must have looked long and hard at Stalin's wartime system before reorganizing its strategic command and control structure in recent years. The creation of strategic theaters of

military operations and restructuring of strategic and tactical forces are to ensure centralized strategic planning and control while decentralizing battle management for operational flexibility under conditions of modern warfare. Stalin had to solve many similar problems of strategic command and control while directing the Soviet war effort against Germany. Unlike Stalin's often makeshift solutions, this new Soviet strategic structure is intended to function equally well in peacetime planning and wartime execution.

On the diplomatic front, Stalin astutely maneuvered the Allied leaders to attain the destruction of Nazi Germany and his grand design for the establishment of Soviet hegemony in Eastern Europe. Indeed, some of Erickson's best sections are those that detail the wartime conferences at Tehran and Yalta and the Allied diplomatic dealings over Poland, Finland, Romania, Czechoslovakia, Yugoslavia, and the postwar occupation of Germany.

One of the most interesting aspects of Erickson's account is the comparison of the wartime leadership of Stalin and Adolf Hitler. Unlike the Soviet leader, Hitler largely disregarded his General Staff and field commanders after 1942. Whereas Stalin's early losses forced him to rely on his military advisers, Hitler's initial victories convinced him of his own military genius. Misreading the experiences of the winter campaign of 1941-42 in the east, Hitler insisted on rigid compliance with strict no-retreat orders that largely sacrificed strategic and tactical maneuver and flexibility and led to a succession of disasters that began at Stalingrad. In the end, hundreds of thousands of troops were bottled up in fortresses and hedgehogs where they could do little to hinder the great Soviet offensives of 1944 and 1945 that simply flowed around and beyond them.

Erickson's descriptions of the Soviet planning for and conduct of the major operations such as Kursk, Belorussia, East Prussia, and Berlin are informative and effective. They also vividly show Stalin's dominant central role in

the overall strategic direction of the war. Many Western historians and military leaders may admire the German wartime military machine, but the Soviet planners emerge from these pages as far more astute and able than their German counterparts. After recovering from the devastating opening months of the war, the Soviet leadership built a wartime economy that provided the quantities of quality materiel required to defeat the Germans. At the same time, the Soviet military leaders carefully analyzed and learned from their defeats. Command and staff echelons developed new and revised strategic and tactical doctrines to meet the war's constantly changing defensive and offensive conditions. Battle-hardened frontline commanders then combined the new doctrines and the ever-expanding flow of military equipment with devastating effectiveness on the battlefield.

After describing the tough defensive fighting and great tank battles around Kursk in July 1943, Erickson tells how Stalin, the Supreme High Command, and the Army General Staff skillfully orchestrated a series of offensive hammer blows that smashed the German Army into submission. The Soviets deployed large numbers of men and weapons in multifront offensives that first crushed German defenses and then were vigorously pushed until the troops and equipment were exhausted and the supply lines stretched to their snapping points. In these monster offensives, the Soviet doctrine of offensive warfare was clearly and brutally delineated. Developed during the trying early years of the fighting and honed in 1944-45, Soviet offensive strategy emphasized combined arms warfare, concentrated thrusts along the main axes with vastly superior numbers, and the overwhelming application of artillery, air, and armor at the main points of effort in the form of powerful, coordinated "offensives." Then followed the rapid exploitation of breakthroughs by air-supported tank and mechanized forces, which drove deep into the German rear areas to destroy reserves and supply lines while surrounding major operational forces.

Operations such as the destruction of Army Group Center in Belorussia during June-August 1944 and the drive from the Vistula to the Oder in January 1945 must be studied more closely to understand the development of the Soviet Army's great offensive power and skill. More important, the study of such offensive operations provides a valuable perspective on today's Soviet military strategy and doctrine, which still draw so heavily on these World War II experiences.

In contrast to the United States, the personal and national experiences and suffering of the Great Patriotic War still deeply affect the basic perceptions and resulting foreign and defense policies of the current Soviet leadership. If the United States had lost 20 million of its citizens and had much of its heartland and national heritage savaged in four brutal years of war and occupation, we, too, would look at the world around us as hostile and menacing, and respond accordingly. My colleague, Von Hardesty, put it aptly in the preface to his *Red Phoenix* (1982) when he wrote: "Even in the nuclear age, the Great Patriotic War lingers as a vivid memory in the national psyche, shaping public attitudes and serving as a conditioning and limiting factor in the evolution of Soviet military doctrine."

Despite its many strengths, *The Road to Berlin* has some obvious deficiencies. Its coverage of military operations is sluggish. The maneuvering of military forces on the battlefield is indeed an art, and so is the description of those movements. Given the magnitude of Soviet-German war and the need to cover the major military operations at the front, Erickson has done a commendable job in just providing a coherent narrative. While the book is clearly written, I found it difficult to maintain my attention and pace through hundreds of pages clogged with phase lines, captured cities, and a multitude of offensives, counteroffensives, breakthroughs, linkups, envelopments, and troop movements.

A paucity of sufficiently detailed operational

maps further compounds the reader's problems. Only 16 maps dot the 640 pages of text covering complex operations in a geographic area of the world—Eastern Europe and the western Soviet Union—about which most Americans are almost totally ignorant. For example, some very important operations are described in chapter 4, "The Drive to the Western Frontiers: October 1943-March 1944," but the only usable reference map is in chapter 3 (p. 125), which covers the drive to the Dnieper River. The reader is usually left in a complete muddle unless he uses an atlas or other histories, such as Earl Ziemke's *Stalingrad to Berlin* (1968), which has forty-two maps for the same period of the war (November 1942-May 1945).

If these shortcomings were not enough, Erickson's organization makes reading even harder. The book has only eight chapters, with four of them more than ninety-nine pages and chapter 5 numbering 139 pages. Moreover, the chapters have no topical subdivisions or subheadings, so the reader has little help in trying to organize and then digest the wealth of information crammed into each very large chapter.

In a book like *The Road to Berlin*, which covers so much, many subjects are treated so unevenly that some receive detailed coverage while others are barely touched. The Soviet Air Force and the air war in the east are among the more scantily treated subjects, until the final chapter on the last months of the war. Even then, only a little more than one page (556-58) out of 109 pages is devoted to air operations. This is a disappointment because the Soviet Air Force played an important role in the fighting and emerged from the war as the second largest air force in the world after the U.S. Army Air Forces. Although it lacked a significant strategic air component, Soviet military air power in 1945 was completely integrated with the ground forces for strategic offensive operations and a formidable tactical weapon. More detailed coverage would have revealed the significant continuities of doctrine, organization, and leadership between today's Soviet

Air Force and its wartime predecessor.

While Erickson provides the broader historical context, readers must turn to other accounts to learn more about the Soviet Air Force's wartime development. The best Western account of the Soviet Air Force during the war now available is Von Hardesty's excellent *Red Phoenix*. Two general Soviet accounts of the Air Force's leadership, organization, and operations are M. N. Kozhevnikov's *The Command and Staff of the Soviet Army Air Force in the Great Patriotic War 1941-1945* and Ray Wagner's *The Soviet Air Force in World War II* (1973), a translation of an official Soviet history.

Shorter overviews of Soviet air power can be found in "Soviet Air Forces in World War II" by Von Hardesty and John T. Greenwood in *The Soviet Air Forces* (1984), edited by Paul Murphy, and in John T. Greenwood's "The Great Patriotic War, 1941-1945," in *Soviet Aviation and Air Power: A Historical Review*, edited by Jacob Kipp and Robin Higham (1978). Alexander Boyd's *The Soviet Air Force since 1918* (1977) covers the war years within a more general history, as does Robert Kilmarx's now badly dated *A History of Soviet Air Power* (1962) and Asher Lee's *Soviet Air and Rocket Forces* (1959).

Even though it has some structural shortcomings, *The Road to Berlin* is an extremely valuable book and a major contribution to the Western literature on the history of the Great Patriotic War. Not the least of its contributions will be found in the extensive concluding sections on references and sources and the bibliography, which provide detailed information for additional reading and research.

Taken together, John Erickson's two volumes now must be considered the standard work in English on the general history of the Soviet involvement in the Soviet-German war. While Albert Seaton's *The Russo-German War 1941-45* (1970) and Earl Ziemke's *Stalingrad to Berlin* are still solid accounts, they rely more heavily on German materials to tell their stories. Thus, John Erickson's works will be a

Stalin had intended when writing to underline the Soviet experience in the war against fascism. Joseph Stalin's role as the Soviet war

leader, and the transformation of the Soviet Union's foreign policy from isolationism to an international engagement.

From Moscow, 1945

Short Bursts

War without Mercy: Race and Power in the Pacific War by John W. Dower. New York: Pantheon Books, 1986, 399 pages, \$22.50.

Wars have never been particularly pleasant affairs, and the 1941-45 war in the Pacific had its share of rather nasty aspects—new lows in the treatment of POWs and civilian populations, individual and mass suicides, the use of weapons designed for mass destruction, and propaganda produced primarily to create hatred for the enemy. All wars have had one or more of these elements in varying degrees. Yet, in the Pacific, John W. Dower contends, the war was a race war, particularly between “white” America and “yellow” Japan. The objective was supremacy of the Pacific Basin by one of the races.

War without Mercy begins with an examination of the conditions of hatred that existed in the war. There were three basic categories, one of which was purely racial: the enemy is portrayed as the “force of darkness,” and inhuman terms are used—“unjust,” “wicked,” “unfair,” “merciless,” etc.; while the enemy drips with darkness, our side bathes in goodness and light, being just, fair, good, and compassionate; and our side is racially superior to their side. Dower examines these themes and the ways they were manifest on both sides of the Pacific. All aspects of what Dower contends was a racial war are examined.

Dower also examines the pre- and postwar viewpoints of the antagonists. Americans are portrayed as racially hating all nonwhites and considering them low in development on the Darwinian scale. In surveying American attitudes toward the Indians and the combatants in the insurrection of the Philippines, Dower leaves little doubt that Americans spoke and acted in racial terms. Meanwhile, the Japanese saw themselves as the chosen people going out and controlling the lesser developed Koreans and Formosans. The Yamato peoples had a mission to perform. (With the current trade problems and other difficulties of today, Dower asserts, some of the words of the 1940s are reappearing. Is racism latent in Japanese-American relations? Dower hints that it may be.)

The racial/cultural wartime clash is portrayed by Dower as one that talks in catastrophic terms of annihilation, obliteration, and “no quarter” given. In 1945, the antagonists suddenly found themselves at peace with a victor and a vanquished. Would there be a bloodbath like Troy? Dower explains that the rapid shift from the hate talk of annihilation, etc., to

goals of reconstruction occurred because of the Cold War (the Americans needed the Japanese as friend quickly). Other racial phrases appeared, and the vanquished were viewed as small children in need of guidance instead of simians, while the victors were seen as strangers who, like all strangers in Japanese folklore, come and leave some benefits despite their evil non-Yamato basic nature. Getting along continued to reflect racial divisions. Hate, once turned on, is difficult to stop abruptly, but it can be diverted into other racial themes.

War without Mercy is interesting and well written. It is generally easy to read, though points are belabored needlessly in some places. Dower has researched thoroughly the topic of the propaganda good and bad, used on both home fronts during the war. There are some twenty-six pages of footnotes. Still, questions remain for the reader to ponder. Just how was the war in the Pacific different from other conflictive situations? If a conflict is between races, is it inevitable that the “war words and the race words come together”?

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Origins of the Great Purges: The Soviet Communist Party Reconsidered, 1933-1938 by J. Arch Getty. Cambridge, United Kingdom: Cambridge University Press, 1985, 275 pages, \$34.50.

This is a remarkably fresh and significant piece of new research. It is, oddly enough, the first systematic effort to study the purges as an administrative process; and, as such, it throws more new light on the subject than most students of the period would have believed possible. It is distinctly revisionist, and J. Arch Getty summarizes his thesis succinctly at the outset: “Most Western and dissident Soviet accounts of the Great Purges share certain assumptions: The political events of 1933-39 constitute a unified phenomenon (the Great Purges), which can be studied as a process; the Great Purges were planned, prepared, and carried out by a single agency (Stalin); and the Old Bolsheviks of Lenin’s (and Stalin’s) generation were the purges’ target. The present study tests these assumptions against the available primary evidence and finds them untenable.” (p. 3)

Getty’s thesis is the more surprising in that he has had access to no essentially new evidence (it would

have been even more surprising to find new evidence). He has simply used the publications of the 1930s, of the Khrushchev era of anti-Stalinist revelations, and of the Smolensk archive. Of course, all of these materials have been used before. The difference in Getty's findings derives from the different questions that he asked of the sources, from his openness of mind about the subject, and from his stubbornly systematic collation of the documents. His work is unusually impressive, so much so, it seems to me, that his argument supporting his conclusions must be judged at least a qualified success. Of course, the evidence is not sufficient to write a definitive account of the subject, and it would be foolish to claim (he does not) that he has demonstrated his case beyond a reasonable doubt. What he has done is to damage the old model of purge historiography to such an extent that we simply cannot repeat it complacently and unquestioningly ever again.

In the process, Getty has done something which is, in some respects, more interesting than he himself seems to recognize. He has applied to the history of the 1930s something very like the model so current among political scientists on the Soviet politics of the 1960s and 1970s (i.e., the model that focuses on pluralism and the conflict of interest groups in Soviet politics). He is very critical of Merle Fainsod's old conception of Stalinism in the 1930s as "inefficient totalitarianism." More and more, it seems—however much we are warranted in holding to the old ideas of the oppressiveness, the injustice, the inhumanity, the near cosmic misery of Soviet society in the 1930s—the idea of totalitarianism slowly but ineluctably gives way because no government as inefficient, arbitrary, chaotic, incoherent, ill-directed, and confused as he shows this one to have been can conceivably approach the model of totalitarianism.

The particulars of Getty's work are also interesting. He shows the party to have been not only totally unequal to the task of controlling the countryside even in the wake of collectivization but also just as unable in managing a coherent administration of itself. There was a virtual market in party membership cards. The party served as a refuge for all kinds of scoundrels who moved from place to place to live down, among other things, an anti-Soviet past. In order to establish a modicum of authentic information about the newcomers, party administrators were writing to their counterparts in the regions from which these unknown members ostensibly came.

Getty joins Adam Ulam, Martin Malia, and others in his view of the Kirov assassination, which is to say, he argues—and in more detail than has been done previously—that Stalin was probably not the

agent of Kirov's murder. Getty's argument is an interesting presentation.

Andrei Zhdanov emerges here as a populist democrat (of sorts) with an antagonism to bureaucracy and an unbounded faith in education and propaganda. He was a constant critic of the purges, both during and after them. Nikolai Ezhov shared Zhdanov's antagonism to bureaucracy but detested specialists, technocrats, and probably educated people in general. He was the model of the true believer, a fanatical purist who was perhaps the primary agent of the radicalization of the purges. Leon Trotsky was more deeply involved in the organization of opposition groups in the Soviet Union in the early 1930s than we have usually believed, although he was never guilty of all of the fantasies of which he was accused. The Tukhachevskii affair is steeped, according to Getty, in more mystery than we have the means to clarify, and, at the present time, there is little point in trying to do so. Finally, Stalin's political program was one of great volatility and instability, as Getty convincingly shows. Stalin tended to hold to the middle amid various shifting extremes about him, and he changed his position with bewildering inconsistency and insouciance.

The Great Purges were, in summary, a more or less haphazard convergence of two phenomena: the conflict of Moscow with local party organizations at the grass roots, in an effort to draft a new and administratively uncorrupted generation of *apparatchiki* into party work; and a successful struggle of such radicals as Ezhov and Molotov against moderates of the kind of Ordzhonikidze and others.

Getty has given us research of extraordinary significance.

Dr. Hugh Ragsdale
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Warlord Soldiers: Chinese Common Soldiers, 1911-1937 by Diana Lary. New York: Cambridge University Press, 1985, 177 pages, \$29.95.

Because China's warlord era has intrigued the imagination of Westerners, a great deal of material, both scholarly and popular, exists on the topic, focused understandably, on the warlords themselves: their strategies, social programs, and idiosyncrasies of personality. Diana Lary's book complements the existing literature by looking at this period from the perspective of the ordinary soldier. She asks where recruits came from, how they got into the army, what their lives were like after they joined, how they were treated by their officers, how they behaved to-

ward the world they had left, and how they were seen by that world.

Not surprisingly for a society which believed that, just as one did not use good iron to make nails, one should not use good men for soldiers, Lary finds that the main sources of recruits were the poor, the uneducated, the bored, the misfits, and the press-ganged. Once in the army, these recruits could expect better food and an income more reliable than that available to them in their native villages. Typically, there was a vast social gap between officers and men. Officers tended to treat their subordinates relatively well when a contractual relationship was the basis under which the men had been hired, paying them regularly and even caring for their families. Those who entered the military under noncontractual relationships were apt to be the victims of a more predatory attitude in their officers, who retained as much of their troops' pay as they thought they could get away with and who tried to ensure obedience through harsh discipline. Given China's perpetual oversupply of manpower, those who deserted or died were easily replaced. The result, however, was an incompetent soldiery. Troops often assuaged their resentments by bullying civilians, who, in turn, regarded the military with a mixture of fear and contempt; in fact, the distinction between soldiers and bandits was often very difficult to draw.

Although Lary avoids comparisons with present-day China, the student of the contemporary People's Liberation Army will find illuminating parallels in certain instances, such as the difficulties of reintegrating demobilized servicemen back into civilian life. *Warlord Soldiers*, however, stands on its own merits: it provides a fascinating, often poignant portrait of an era mercifully past.

Dr. June Teufel Dreyer
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Hans Delbrück and the German Military Establishment by Arden Bucholz. Iowa City: University of Iowa Press, 1985, 192 pages, \$17.00.

Professor Arden Bucholz, through very detailed research, has produced a fine, enviable volume on Hans Delbrück, one of Germany's most productive, controversial modern military scholars. Delbrück's volumes, *History of the Art of War*, have been studied for some time at the United States Military Academy, as well as at academies of a few other nations. However, for a long time, Delbrück and his writings were attacked in Germany and were generally ignored by professional academicians, many of

whom are not yet familiar with either the scholar or his many writings.

Delbrück's life (1848-1929) spanned the period of German unification, through Imperial Germany, the Great War, and the war's aftermath. When the Franco-Prussian War broke out, Delbrück, with his well-developed historical perspective, entered the war as a corporal and soon became a reserve officer who learned the smell and terror of battle. These experiences, coupled with his not being a military or academic professional, might have made him suspect to the academic community, particularly at the University of Berlin. The University of Berlin, along with the German General Staff, was steeped in the Prussian tradition and von Schlieffen's school of attack. Delbrück's position was that both authoritative groups had misread history and, specifically, the period of Frederick the Great and Napoleon. Thus Delbrück was seen by many as an iconoclast. This perception, along with his closeness to the Royal Family and his experience as a politician and later as a political commentator and publisher, further estranged him from the professionals of academia and the General Staff.

Professor Bucholz begins his study of Delbrück with the conflict over the military strategy of Frederick and the interpretation of Clausewitz that existed in 1870. He correctly describes the military thinking of Frederick, Napoleon, and von Moltke (who used the same strategy), explaining how this was to influence the military planners for the next generation.

The reader will be fascinated by Bucholz's account of Delbrück and his thinking, as well as by his short, but detailed account of von Schlieffen. Noting that the two men had attempted to solve the intellectual differences between the academics and the military, Bucholz describes how, as time passed, their work brought them closer together. Bucholz concludes his work with the bitter dispute between Delbrück and Ludendorff about the later conduct of the Great War and the subsequent "stab-in-the-back" legend. This further estranged Delbrück not only from the German military and conservative politicians and professors but even from his own family.

If one looks for a core in Delbrück's thinking, it might be seen as the failure of argument between wars of annihilation and attrition to recognize that history had demonstrated that wars have been fought and won by limited strategy. Also, Delbrück believed, leaders sometimes overestimate their own nation's war potential, underestimating material realities. According to Delbrück, war must be conducted with a clear understanding of the political ramifications of its objectives. Thus, he saw Germany as going into World War I with a strategy unrelated to

its own relative weakness. And, as he was well aware, one can lose a war even before it starts.

Hans Delbrück and the German Military Establishment will be read with interest by those who are familiar with the writings of Delbrück, as well as by scholars and students of German history, military affairs, and modern history. The professional officer will find it very rewarding.

Dr. Raymond L. Proctor
University of Idaho, Moscow

Soldiers of Rome: Praetorians and Legionnaires by Colonel Robert F. Evans, USA (Ret). Washington: Seven Locks Press, 1986, 171 pages, \$17.95.

Colonel Robert F. Evans has combined a revision of his *Legions of Imperial Rome* (a concise description of each imperial legion, with five maps showing their disposition) and an account of the Praetorian Guard to produce an excellent little book, albeit a book with some serious flaws. On page 11, for example, in rejecting the historian Dio's statement that the Praetorians pillaged Rome, Colonel Evans writes, "Neither Tacitus nor Suetonius confirm Dio's account. . . ." Nor do they contradict it: Suetonius wrote brief, episodic biographies, and Tacitus's account of the period in question is lost. On page 13, Evans asserts that the assassination of Caligula in A.D. 41 proceeded ". . . with the approval of the prefects, Rufrius Crispinus and Sextus Afranius Burrus"; however, Burrus did not become prefect until A.D. 51. Typographical errors are common—e.g., page 48: "II Gallica" should be "II Parthica."

Although *Soldiers of Rome* has faults, it also has compensating virtues. Colonel Evans describes the Praetorian Guard in context as an institution of Imperial Rome. This fruitful approach reveals, for instance, the relationships between the Praetorians and the emperor and the Praetorians and the Senate. The Praetorians constituted a threat to Senate prerogatives, as well as to the senators' and emperors' lives. The emperors sought control of the Praetorians by appointing two prefects and by co-opting a prefect into the imperial family or appointing prefects from the imperial family.

Anyone who wishes to understand the Praetorian Guard or, indeed, anyone interested in a case study of a military organization in society should read this book.

Dr. Alfred S. Bradford, Jr.
University of Missouri-Columbia

The Wild Blue: The Novel of the U.S. Air Force by Walter J. Boyne and Steven L. Thompson. New York: Crown Publishers, 1986, 757 pages, \$19.95.

The Wild Blue is a fictional account of the professional lives and personal experiences of six U.S. Air Force officers and their families during the first three decades of the institution's existence. The principal characters—two fighter pilots, two bomber pilots, an airlift pilot, and a noncommissioned aircraft mechanic—transcend thirty-year careers, from training to command, and, in the process, become personally involved in the military events of the era. Told in the epic-like manner made popular by Michener and others, the plot develops chronologically, using the major social upheavals of the time as focal points for bringing the characters into contact.

The book includes episodes and stories related to the creation of the Air Force in 1947, the Berlin Airlift, the Korean War, Vietnam, the Middle East, as well as the integration of the Air Force, the development of the F-111 and B-1, the Pentagon bureaucracy, military pay and compensation, promotions, and the declining quality of military health care. One of the authors, retired Air Force Colonel Walter J. Boyne, clearly contributed much from his personal knowledge and experiences. However, although the book's 757 pages contain interesting material about all the wars, events, and phenomena of the period, there is a substantial amount of stuffing to contend with that doesn't add much to the substance to the story. Rather lengthy passages are devoted to explicit accounts of sexual encounters ranging from pilot training flings with the cross-country instructor's wife, to the back streets of Bangkok and "good ole Number 54," and then back home again to the patient (if unfaithful) wife. *The Wild Blue* has it all and has it in a less than tasteful lexicon.

There is little, if anything, appealing in *The Wild Blue*. Too many subjects are too broadly treated in a contrived story held together by events over time. A reader would have to be a lifelong reader of *Air Force Times* to relate to this book. Moreover, while the world is this novel's stage, not a single map is to be found, and a glossary of acronyms must be consulted continually to translate the unnecessary jargon. Based on my personal experience, I found that even the descriptions of aerial combat are not particularly accurate or revealing. Perhaps what is most distasteful in the book, however, is the use of subtle ethnic undertones regarding Asians, reminiscent of attitudes that may have characterized America in the 1930s. Stereotypes abound; Koreans are treated as dishonest, Thais are crooks or prostitutes, South

Vietnamese are cowards, and even Americans of Asian background are portrayed as unreliable soldiers. When, for example, our hero takes his retirement physical to end thirty years of courageous service, he is examined by "a small, obviously Middle Eastern man . . . wearing captain's tracks and a white coat. . . . 'I'm Doctor Shamad. Pleased to meet you.' His voice was sibilant. He sounded like a Pakistani merchant." The physician is too lazy to administer a routine EKG properly. When a nurse finally gives the test, it reveals a serious heart disorder, which the incompetent doctor then refuses to acknowledge, thereby sending our hero to an early death.

For professional reading in a society where time is a precious commodity and Air Force professionals need to concentrate on studying the art and science of war, *The Wild Blue* can be left out in the yonder.

Major Alan J. Parrington, USAF
Holloman AFB, New Mexico

Gentlemen of War: The Amazing Story of Commander Kurt Muller and the SMS Emden by Dan van der Vat. New York: William Morrow and Company, 1983, 208 pages, \$12.95.

On 12 April 1910, the SMS *Emden*, a new light cruiser of the Kaiser's battlefleet, left German home waters for the last time. After a leisurely voyage to the Orient, she assumed station with Germany's Pacific fleet and, like the rest of the Far Eastern Squadron, found herself cut off and hopelessly outnumbered when war broke out in 1914, facing the combined naval forces of Imperial Russia, Japan, France, Great Britain, and Australia. In an incredible voyage

of heroism, chivalry, and professionalism, the SMS *Emden* played havoc with her would-be executioners and became one of the great commerce raiders of the war. Before her pursuers finally sank her in November 1914, the cruiser had sailed thirty thousand miles, destroyed sixteen merchant ships, seized three colliers loaded with British coal, plundered two merchant vessels and used them to set free captured prisoners, and sunk one Russian cruiser and one French destroyer.

Even her sinking did not end the crew's adventures. Fifty crew members escaped death or capture and sailed an auxiliary vessel to Turkish territory in the Middle East. Then they traveled across the Arabian Desert to Palestine and Constantinople, and finally, they returned home to Germany.

Author Dan van der Vat has written an engrossing account of the SMS *Emden's* voyage. *Gentlemen of War* will be of particular interest to students of the Great War, but any military professional will profit from this reminder that courage and skill can produce results far greater than available resources might indicate. However the book also reveals that advanced technology, bravery in combat, and unswerving performance of duty—when coupled with a little luck—in the end usually prove insufficient before a numerically superior force. As happened in the SMS *Emden's* case, the "big battalions," with only competent leadership, can defeat a less powerful force, even when that force is aided by a host of qualitative advantages.

Major Gary P. Cox, USAF
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The Air University Review Awards Committee has selected "The Legacy of Halfway Unification" by Warren A. Trest as the outstanding article in the September-October 1986 issue of the Review.

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the contributors



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