

AIR  
UNIVERSITY

# review

MARCH-APRIL 1985



AIR  
UNIVERSITY  
**review**

MAXWELL AFB, AL 36112

SPECIAL FOURTH CLASS MAIL  
CALCULATED POSTAGE  
PERMIT G-1  
USAF-ECI  
GUNTER AFB, AL 36118

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE \$300  
RETURN POSTAGE GUARANTEED



*The Professional Journal of the United States Air Force*

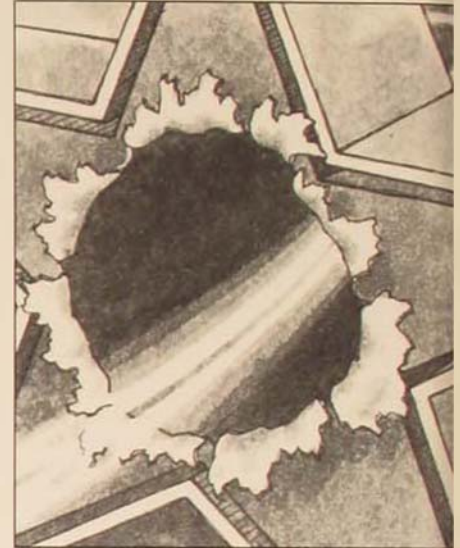




Germany and our views of the Soviet military—*pages 4 and 102*



Doctrine: the Soviet experience—*page 24*



Soviet operations in Europe: what expect—*pages 36 and 65*

## Attention

Since modern warfare is continuously changing, Air Force leaders must be constantly alert for new ideas that might be the key to the successful application of aerospace power in the future. The *Air University Review* is the professional journal of the United States Air Force and is designed to serve as an open forum for exploratory discussion of professional issues and the presentation of new ideas. As an open forum, the *Review* aims to present new ideas and stimulate innovative thinking on military doctrine, strategy, tactics, professionalism, and related national defense matters. The views and opinions expressed or implied in this journal are those of the individual authors and are not to be construed as carrying the official sanction of the Department of Defense, the Air Force, Air University, or other agencies and departments of the U.S. government. Thoughtful and informed contributions are always welcomed.

Address manuscripts to Editor, *Air University Review*, Bldg. 1211, Maxwell AFB, AL 36112. *Review* telephone listings are AUTOVON 875-2773 and commercial 205-293-2773. Manuscripts should be typed, double-spaced, and submitted in duplicate. Military authors should enclose a short biographical sketch, including present and previous assignments, academic and professional military education; nonmilitary writers should indicate comparable information.







# AIR UNIVERSITY **review**

March-April 1985 Vol XXXVI No. 3

- 2 **A BOOKISH AGE: OF ANT LIONS AND BARNACLE GEESE**  
Editorial
- 4 **A DUBIOUS HERITAGE: THE MILITARY LEGACY OF THE  
RUSSO-GERMAN WAR**  
Dr. Dennis E. Showalter
- 24 **THE EVOLUTION OF SOVIET MILITARY DOCTRINE, 1945-84**  
Dr. Jonathan R. Adelman
- 36 **SOVIET AIR AND ANTI-AIR OPERATIONS**  
Phillip A. Petersen and Maj. John R. Clark
- 55 **SOVIET RESPONSES TO THE U.S. STRATEGIC DEFENSE INITIATIVE:  
THE ABM GAMBIT REVISITED?**  
Dr. Ilana Kass and Ethan S. Burger
- 65 **THE SOVIET OFFENSIVE—AN ATTACK PILOT'S VIEW**  
Lt. Col. Harry J. Kieling, Jr., USAF
- Air Force Review**
- 71 **COMING OF AGE: XIX TAC'S ROLES DURING THE 1944 DASH  
ACROSS FRANCE**  
Dr. Alan F. Wilt
- 88 **IRA C. EAKER ESSAY COMPETITION ANNOUNCEMENT**
- Commentary**
- 89 **ON AIR FORCE READING, WRITING, AND POLICY REVIEW**  
2dLt. Michael J. Reed, Maj. Gen. James P. McCarthy,  
Lt. Col. Joe C. Henderson, Capt. Roger C. Burk,  
Maj. William J. Gorman, Jr., and Lt. Col. Paul S. Gibson
- 94 **ON THE AIR FORCE OFFICER CORPS: QUO VADIS?**  
Brig. Gen. Richard D. Smith, 1st Lt. Matt P. Simmons,  
Col. Lawrence J. Hillebrand, and Editor's Response
- 98 **ON PALMER AND THE PENTAGON: THE RELEVANCE OF AN  
OLD SOLDIER'S IDEAS**  
Dr. Edward J. Philbin
- Books, Images, and Ideas**
- 102 **INVENTING HISTORY: SOVIET MILITARY GENIUS REVEALED**  
Lt. Col. Barry D. Watts, USAF, and Dr. Williamson Murray
- 113 **Potpourri**
- 127 **Contributors**

#### the cover

In this issue, we focus on military thinking about warfare in the European theater. In treating this theme, several included articles stress the influence of World War II. Our artist captures this influence in the cover art by placing a brooding Adolf Hitler in the background of a map of Europe over which he has imposed a scheming, sly Joseph Stalin. Superimposed on all of this is a Soviet Su-24 Fencer, casting a sinister shadow over much of Europe and symbolizing the military forces that emerged from World War II and now confront each other across the border between East and West in today's Europe.

---

## EDITORIAL

---

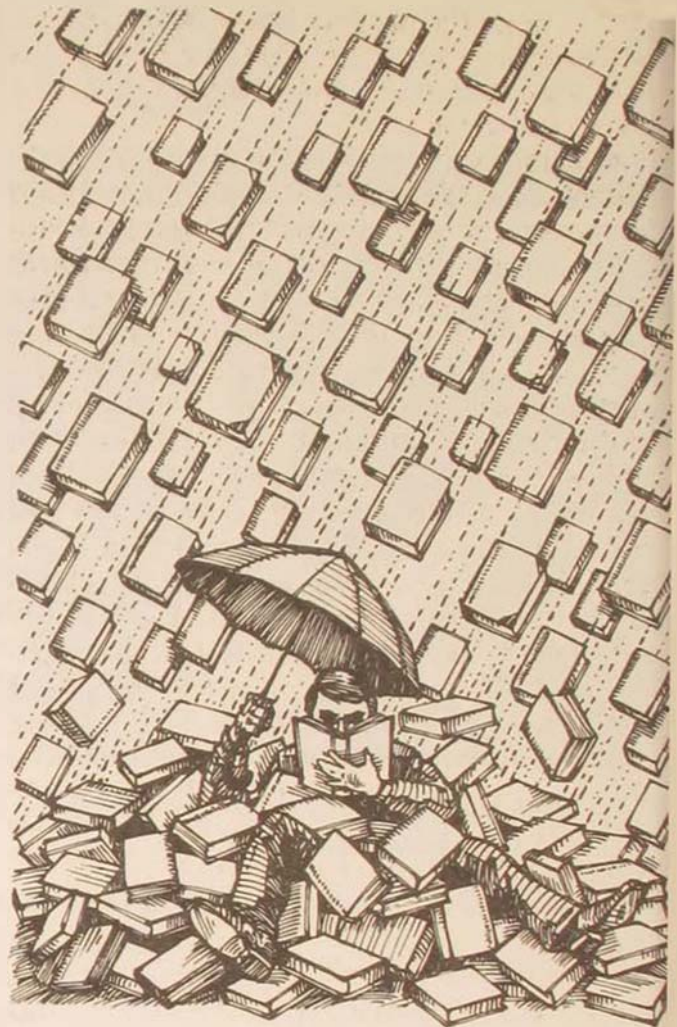
# A BOOKISH AGE: OF ANT LIONS AND BARNACLE GEESE

In our own society most knowledge depends, in the last resort, on observation. But the Middle Ages depended predominantly on books.

C. S. Lewis  
*Discarded Image*, p. 5

HAVE you ever wandered into a bookstore and begun to wonder who reads all this stuff? Each year in America, something like 45,000 new books are published. In addition to this large number of books, there are thousands of journals being printed. About 400 of these journals deal at least in part with national defense issues.

Several factors fuel this modern paper blizzard. For one thing, academics are caught in the publish-or-perish syndrome. In their efforts to earn promotions or academic tenure, they produce vast quantities of publications, "not because they feel they have something to say, but because they feel they had better say something." (*Chronicle of Higher Education*, 12 December 1984, p. 96) Think tanks and consultants also produce a seemingly endless stream of publications in their efforts to estab-



lish a reputation that can win lucrative government contracts.

Furthermore, spurred on by the insatiable appetite of America's publishing industry, scholars and consultants alike resort to practices that are questionable from a scholarly standpoint. One such practice is publishing variations of the same basic idea in several different articles in multiple publications. Another is publishing several articles and then combining the articles into a "book," even when the articles are at best uncomfortable inhabitants of the same volume. There is also the practice of collecting the writings of various authors into an anthology, which gives all concerned, editors and authors, another vita line. While some anthologies are needed as college course materials, far too often we find ourselves lured to a volume by

an enticing title that promises a new synthesis or a new insight, only to find that the book is nothing more than a salad made from the same stale vegetables.

A major problem with the medieval bookishness described by C. S. Lewis in *Discarded Image* (opening quotation) is that it gave rise to inaccurate pictures of the world, a world that was populated with ant lions (creatures that were literally half ant and half lion) and barnacle geese (geese that hatched from barnacles on trees). Our bookish age throws up its share of ant lions and barnacle geese, such as “existential” deterrence, Soviet officers who will not deviate from orders, a Soviet military that is so full of alcoholics that it cannot fight its way out of a paper bag, and Vietnams in Central America and Afghanistan. But a far greater problem posed by the modern bookish age is that the sheer volume of publications threatens to destroy the value of intellectual activity by making it nearly impossible to find the worthwhile ideas that are buried in the huge quantities of banal, inane writing that deal with virtually every imaginable aspect of our world, including defense issues.

How can we deal with this problem? To start with, academics, military professionals, and consultants who wish to write must recommit themselves to the traditionally high standards demanded of scholars. Genuine, high-caliber scholars adhere to the principle that you don't seek to publish something unless it is an original contribution to the body of knowledge about a given subject. Similarly, intellectuals serving as critics must quit scratching each other's backs and get back to writing

serious, critical book reviews based on the principle that the reviewer's primary obligation is to tell his colleagues and other interested parties whether they should spend some of their limited, valuable reading time on a particular book.

Two articles in this edition of the *Review* are aimed at helping our readers sort out some important professional issues. In the lead article, Professor Dennis Showalter, an accomplished military historian with a thorough grasp of German sources, shows us how our myths about the Soviet military man came to us—through German eyes that viewed the Russians and later the Soviets through their own particular set of cultural and political lenses. The other article of particular note is by Lieutenant Colonel Barry Watts, one of our leading blue-suit thinkers, and Professor Williamson Murray, an eminent military historian with a detailed knowledge of German military history. Their critical review essay raises serious questions about a recent book on Operation Barbarossa and may have killed a modern barnacle goose aborning.

Unfortunately, these two articles do not mean that an intellectual millenium is at hand. Reforms that might lead to critical, enlightening book reviews and improvements in the quality of publications are not likely to occur anytime soon. Thus, we must continue to skim a great deal and digest very little, all the while exercising our intellects and maintaining a healthy skepticism about what we are reading. This is the only way we can find the useful ideas hidden among the barnacle geese and ant lions.

D.R.B.



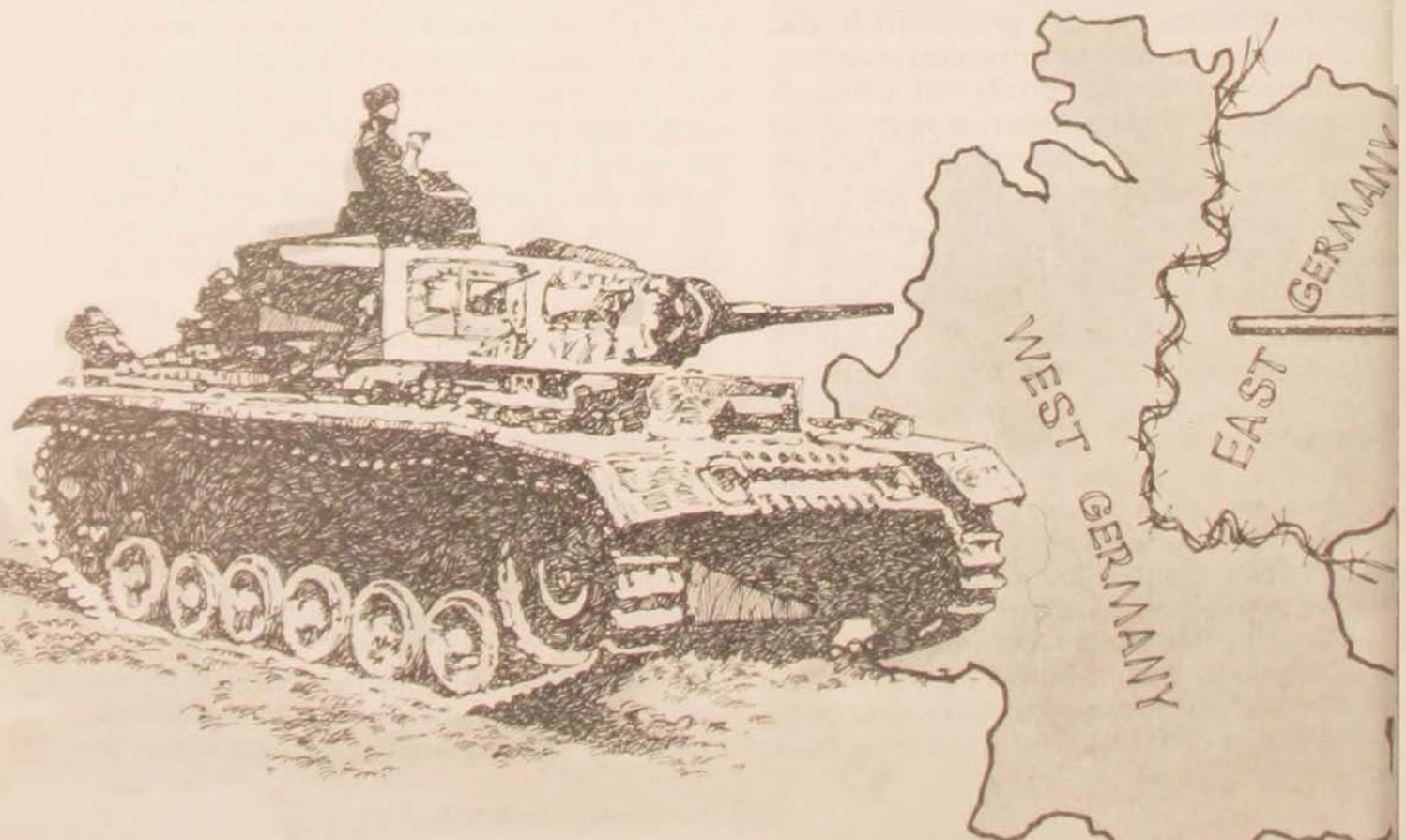


# A DUBIOUS HERITAGE: THE MILITARY LEGACY OF THE RUSSO-GERMAN WAR

DR. DENNIS E. SHOWALTER

**I**NSTITUTIONALLY and individually, the study of history is once more respectable in the U.S. Armed Services. Clausewitz has been rediscovered and applied in fields from counterinsurgency to thermonuclear war. Present-mindedness is the new cardinal sin, condemned in word and print by the most senior generals and admirals. This more comprehen-

sive approach may be an improvement over the conviction that relevance begins with the current Chief of Staff's appointment. Yet Americans need constant reminding that military history offers more landmarks than watersheds. Its lessons, real and alleged, exist as part of a continuum; their interpretations, moreover, are usually shaped by events and attitudes long



antedating the material under specific study.

This truism is reflected clearly by the evolving impact of the Russo-German War of 1941-45 on Western military thought. The process began in Germany. The eastern front dominated Wehrmacht military experience in the same way that the trenches of France and Flanders conditioned generations of French and British thinking. It was in Russia where the scale of conflict challenged imaginations. It was in Russia where entire divisions vanished, leaving barely enough survivors to reconstruct the story of their passing. It was in Russia where war was waged to the knife, with quarter a random process and death in battle a rational choice over captivity. For *Landser* and general alike, fighting the Russians was an ultimate test of professionalism and manhood, a test whose demands were of a different order than those posed by the British or Americans.

Although Monte Cassino and the Falaise Gap were not exactly perceived as rest cures by their German participants, most comparisons of the Wehrmacht to the allies on the western front from the victors' perspective are extremely flattering to the Germans. Trevor Dupuy, Martin van Creveld, Max Hastings, and their counterparts leave their readers in little doubt as to

who were the better and more skillful soldiers.<sup>1</sup> This evaluation has been reinforced by those Wehrmacht veterans who have made hobbies, not to say second careers, of lecturing at service schools and talking into tape recorders on the theme of how Germany almost won the war. Their American and British opponents emerge as well-intentioned, civilized amateurs dependent on massive material superiority for marginal victories against second-line German troops. Both implicit and explicit in their presentations is the conclusion that the real war was waged in Russia, and that he who has not fought the Red Army does not know what soldiering is.

GERMAN attitudes toward military Russia are, however, by no means the simple product of a single conflict. From the days of Frederick the Great, Prussian generals made no secret of their respect for the Russian as a fighting man—a respect inspired by the bloody battles of Zorndorf and Kunersdorf and earned once again in the wars against Napoleon. The reformed Prussian army of 1813-15 learned how to fight largely by watching the Russians. The spirit of emulation that characterized Prussian military relations with the Tsar's empire in the Age of Metternich owed at least as much to memories of Russian performance in combat as to the common conservatism of the two eastern monarchies.

This pattern began to change with the emergence of nationalism and racism in the nineteenth century. Everywhere in Europe, cultural and behavioral distinctions became elevated and ossified into inborn, ineradicable characteristics. Growing political and economic rivalry between Germany and Russia sharpened descriptions of Russia as a land of chaos held together only by despotism and of Russians as a primitive people with neither pride nor conscience, destroying themselves through vodka and syphilis.<sup>2</sup> Yet in the years prior to World War I, the Russian army was still regarded as a





formidable adversary by the German General Staff. Its sheer size, combined with the hardiness and endurance of the individual soldier, appeared to compensate well for the professional shortcomings of the officers and the corresponding lack of operational and tactical flexibility.<sup>3</sup>

Between 1914 and 1917, this position was significantly modified. The crushing victories of Tannenberg, the Masurian Lakes, and Gorlice-Tarnow established an alternate characterization of the Russian army as a vulnerable force composed of soldiers too primitive to adapt to modern conditions of war without careful and extensive preparation. The fall of the Tsar and the accompanying collapse of the old army's discipline simply reinforced images of uniformed protoplasm that could neither be driven nor led effectively.

Russia's military inferiority increasingly became a political issue. The rivalry between Hindenburg, Ludendorff and Falkenhayn, between "easterners" and "westerners," for control of German strategy and policy had begun well before 1916 to escalate into dreams of an *Ostimperium* of client states and colonies carved from the Russian Empire. Even such a relatively sober soldier as Max Hoffmann speculated about a German Riviera on the Black Sea—the kind of attitude best nurtured in the context of an opinion that the region's current occupants could be easily subdued or dispossessed.<sup>4</sup>

Postwar collaboration between the Reichswehr and the emerging Soviet army provided ample material for more balanced interpretations. Students and officers assigned to the aviation school at Lipetsk or the tank school at Kazan were frequently impressed by the scale and sophistication of the operations, finding that the Russians had much to teach as well as learn. In 1928, future War Minister Werner von Blomberg insisted that the Red Army was anything but the unsophisticated bodyguard of an unpopular government. It had evolved, Blomberg declared, into a people's army in the truest

sense of the word. The Russian soldier's discipline was sound, his training rigorous and practical, his equipment steadily improving. And he had lost none of his traditional virtues under communism.<sup>5</sup>

Such points were not entirely lost in Germany. They were, however, usually interpreted in a context presenting Germans as teachers, providing instruction in modern ways of war to their less sophisticated, less clever eastern neighbors. This sense of a civilizing mission could be traced back as far as the myths surrounding the medieval Teutonic Knights. It reflected contemporary ideological hostility—the belief, widespread everywhere in the interwar west, that communism was essentially parasitic, dependent on capitalist cultures for techniques and ideas of progress. German attitudes toward the Soviet military were also conditioned by perceptions of Germany's own experience. Since the Napoleonic Wars, the Prussian and German armies had been based on short-service conscription. The Weimar Republic's 100,000-man professional force was regarded as an externally imposed anomaly, a temporary substitute for a national army. This attitude led to acceptance of the point that modern armies reflected inherent national characteristics, or, in more sophisticated terms, social qualities deep-seated enough to defy eradication or modification by a year or two in uniform. The British and U.S. armies were voluntary forces, committed to making effective soldiers from whatever raw materials the recruiters might offer. German military folk wisdom, on the other hand, argued that training and discipline could only refine what was there in the first place.<sup>6</sup>

In such a context it was scarcely remarkable that a Russia undergoing the strains of the post-Lenin era, whose army for a time seemed almost to approximate a militia force, appeared hopelessly out of the running as a major military power. No matter how many tanks or planes the Soviet system might produce, the men behind them would remain military prim-



itives, lacking the shaping and directing elements to make the best of their limited qualities. At best, the Red Army was an elemental force like a flood or an earthquake—no less dangerous than these natural phenomena, but no more so.

The images may not have reflected exact reality, or even the best available information. They were, however, strong enough to underpin Hitler's decision to sever the Russian military connection after 1933. This decision generated criticism, but no significant protest, from professionals interested in coming to terms with Germany's New Order. A rapidly expanding Wehrmacht had little time or energy for institutional reflection. Both the military's will and its capacity to resist Nazi pressure were limited enough that when the regime reinforced, instead of challenged, existing perceptions in any area, common ground was likely to be gratefully accepted.<sup>7</sup>

Doubts about Soviet military efficiency were focused and legitimated by Stalin's purges. These campaigns eviscerated the professionally and technically trained cadres on which conventional German wisdom insisted the Russian soldier depended for whatever efficiency he possessed. And Soviet operational performances in the 1930s did little to counter Wehrmacht prejudices. Neither the doctrines nor the equipment demonstrated in Spain inspired more than limited respect. The Red Army's victory against the Japanese at Nomonhan in 1939 made no significant impression on a Germany preoccupied with its own successes against Poland. The fighting in Finland seemed only to confirm existing negative evaluations. Suggestions that Soviet effectiveness had been significantly affected by the theater of operations tended to be discounted as special pleading.<sup>8</sup>

Historically, the German army was reluctant to take cues from its neighbors. Contempt for Austrian performance in World War I carried over into negative evaluations of Mussolini's expeditionary force in Spain. The common re-

sponse to Italian failures was not "It can't be done," but "These people can't do it." The victories of May and June 1940 did even more to turn German confidence into arrogance. For over a century, the French army had been regarded as Germany's most dangerous foe. Now it lay broken and humbled after only six weeks. Objectives fought over for months at the cost of tens of thousands of lives in World War I had fallen into German hands like beads pulled from a string. If Britain still lay unconquered across the channel, that was not the army's problem. Had the Luftwaffe and the Kriegsmarine been able to perform their missions satisfactorily, no one from the chief of staff downward doubted that the army would have made quick work of the improvised British defenses.<sup>9</sup>

In this context, it is easier to understand the apparent lack of concern with which the German army prepared for Operation Barbarossa. It went to war with a mixture of weapons and vehicles from all over Europe; with its core, the Panzer divisions, still adjusting to a major reorganization; with a logistic system reminiscent of the Thirty Years War. This apparent lack of preparation was not simple irresponsibility. The Wehrmacht was convinced that in the blitzkrieg it had developed a means of not merely neutralizing but excluding the Red Army's strengths. The Wehrmacht proposed to fight a war in a different dimension, one in which the Soviets literally could not compete—like a chess player forced into a game of blackjack. The shortcomings of this concept became plain within six weeks of the invasion.<sup>10</sup>

Well before Stalingrad, Germany's commanders in the east began altering and limiting their perceptions. Hitler's increasing assumption of command functions was a welcome escape hatch to men recognizing the collapse of Nazi grand strategy and reasonably aware of the probable consequences of that collapse. His marshals responded like short-money players in a table-stakes poker game, concentrating on winning battlefield victories to demonstrate their *virtu* and avert the end as long as possible.



The Wehrmacht played its foe as a matador plays a bull, with energy and cunning countering bulk and ferocity. For two and a half years, the Model, the Tippelskirchs, and the Balcks wrote an epic of brilliant planning and gallant fighting. The only problem was the outcome.

*Invasions from the west and east have marked the Russian experience so that war is a part of the way Russians view life. In their society, it is not unusual that the state airline, Aeroflot, flies airplanes such as the 11-76 (above) which can be easily converted to military use. . . . Likewise, the road and rail systems are designed to facilitate military movement rather than civilian commerce.*







*Today, as in the past, Russian defense strategy is based on the army. Since the Great Patriotic War, the Soviets have fielded superior tanks. The T-72 is no exception.*

The Russians wound up in Berlin.

Almost immediately, the Soviet Union began integrating its zone of occupation into its security system. Disarmament was never anything but a shibboleth. What was important to both the Soviet Union and the leaders of the emerging German Democratic Republic (GDR) was building an armed force that would be a

*Like the Red Army of World War II and the armies of the tsars, today's Soviet Army is disciplined, rigorously but practically trained, and equipped with rugged, useful weaponry.*

reliable safeguard of the new domestic order. The National People's Army (NVA) has followed a straight-line pattern of development into an efficient force whose relatively small size enhances its role in the Warsaw Pact. Its relationship to its Soviet counterpart is deferential to the point of subservience. Organization and equipment differ only in detail from Russian patterns. The armies cooperate closely in matters of training, unit routine, and even group recreation. Joint maneuvers, displays, and parades are common. GDR military publications lose no opportunity to stress the Russo-





German heritage of brotherhood in arms from the era of Peter the Great through the Wars of Liberation to the Bolshevik Revolution, the International Brigades, and the antifascist resistance of World War II.<sup>11</sup>

The dubious reward of this endeavor has been the acquisition of first-line operational responsibilities by the NVA—the only remaining Warsaw Pact force with that distinction. NVA formations, cooperating with and controlled by the Group of Soviet Forces in Germany, are likely to be in the forefront of any attack against NATO. This assignment is a tribute both to the NVA's efficiency and to the level of its identification with Soviet techniques. It is a statement of confidence in the German Democratic Republic's loyalty to her Moscow connection.<sup>12</sup> It also contributes to NATO's defense problems. The question of whether Germans would fire on Germans coming from the wrong side of an artificial frontier continues to generate anxiety in the Bundeswehr.

Given this context, it is difficult to believe that Soviet policymakers would grieve at the NVA's decimation in any conventional war. A Germany united under Soviet auspices would be easier to control if it lacked effective armed forces. The NVA's hostage status makes it correspondingly difficult to speak of an independent attitude toward either past history or current doctrine. There is some evidence that the NVA uses "socialist competition" as a means of proving that Germans can do anything Russians can—and more quickly and efficiently. However, such limited competitiveness hardly suggests the survival, much less the flourishing, of a distinctively German military tradition in the GDR.

**W**HILE the Soviet Union appears confident in its own methods, its Western counterparts have been increasingly willing to consider Germans as mentors in preparing for certain kinds of conventional war. This rela-

tionship has owed much at every stage of its evolution to the lack of acceptable alternatives. From its inception, massive retaliation was a hollow doctrine.<sup>13</sup> Apart from physical and moral implications, army generals were not likely to accept constabulary and follow-up roles while the navies and the air forces did the real work. Nor were they likely to accept the status of guarantors and guardians of Western interests in the then-perceived minor leagues of Africa, Asia, or Latin America. At the same time, the Soviet army was for all practical purposes an unknown quantity. Despite obvious drawbacks, German experience on the eastern front offered some possible insights into the best way of fighting the Russians at least to a draw on the ground.

Extracting and analyzing this experience in the immediate postwar years, however, posed significant problems. The emerging Bundeswehr was in no position to evaluate and institutionalize the experiences of World War II from a detached perspective. It faced a broad spectrum of ambiguities, ambivalences, and double binds. The Federal Republic that it served was initially a second-best solution to many of its citizens. West Germany's self-definition as expressed in its Basic Law was negative: against National Socialism on one hand and against communism on the other, with democracy presented as necessary to sustain the negatives.<sup>14</sup> The issue of rearmament was almost as hotly debated internally as among Germany's erstwhile rivals. Social Democrats feared its effect on reunification. Churches rediscovered their pacifist heritages. An emerging generation of prospective conscripts suggested "without me"—some from conviction, others from cynicism. The political and social changes of the Nazi era and World War II had diminished the military's traditional bases of support. The developing economic miracle attracted and distracted many who saw dreams and opportunities in the private sector. What remained available was a mix of technicians and warriors, anti-Communists

and German patriots, vocal "good Europeans" such as Hans Speidel and Adolf Heusinger, and an increasing number of democrats who believed that the concept of citizens in uniform could be a reality.<sup>15</sup>

It is scarcely surprising that the Bundeswehr has been more closely and systematically scrutinized than any army in modern history for signs of regression to its alleged past. Its domestic critics demand commitments to democracy and internationalism, sometimes to the point of apparent indifference to questions of operational efficiency. Its allies react sharply to the vaguest hints of jackboots or the goose step. And mistrust is not confined to the Western side: since the beginning of West German rearmament, professional, official, and popular literature everywhere in the Warsaw Pact stresses the Bundeswehr as a hotbed and a seedbed of reactionary Junker militarism, an instrument of policies aimed at revising the results of World War II and reestablishing an imperialist German hegemony over central Europe.<sup>16</sup>

West German authorities have striven mightily to modify such suspicion and its impact. Yet both phenomena endure because geographic, economic, and political factors combined to shape the Bundeswehr, more than any other major armed force, to fight a specific enemy in a specific theater at a specific level of intensity. It is difficult to conceive of German troops being employed beyond their own frontiers in U.N. peacekeeping roles. At the other end of the spectrum, West Germany has no independent nuclear capability. To a significant degree, this is a self-denying ordinance. From the 1950s, any suggestion of giving the Federal Republic its own warheads has generated substantial domestic opposition from all points on the political spectrum. Nor has opposition been confined to civilians. From its inception, the Bundeswehr has been significantly critical of the nuclear option. West German politicians in the late 1960s were reluctant to accept the concept of flexible response lest it erode the

credibility of the U.S. nuclear deterrent. This faith in mutual assured destruction as a guarantor of peace is not widely shared by the soldiers. General F. M. von Senger und Etterlin's recent offhand remark that the politicians simply must somehow get rid of the bomb is echoed by the Bundeswehr general who declared that he had participated in five major war games involving nuclear weapons and each time had seen his homeland destroyed.<sup>17</sup>

Paradoxically, the existence of these weapons also provided an answer to the modern German military's most fundamental planning weakness: an inability or an unwillingness to ask what happens next. From the turn-of-the-century days of Schlieffen, German strategic thinking tended toward the operational level rather than toward grand strategy. It developed plans to win campaigns rather than wars. This shortcoming played a significant role in World War II. Efforts to overcome the problem in the Bundeswehr have been hobbled by the Federal Republic's deliberately low profile in international affairs and by the absence of a separate high command with grand strategic responsibilities. Ultimately, however, it is the nuclear issue which has legitimated West German generals' concentration on the subject most comfortable for them: middle-level preparation for a conventional war—specifically, a conventional war against the Soviet Union and its Warsaw Pact clients.

The dominant initial images of such a conflict were provided by men whose major experience had been in the glory days of 1941-42, days of slashing offensives against an opponent able to counter only with unsophisticated mass. To the Mansteins and the Guderians, the keys to victory were what they had always been against Slavic enemies: initiative and flexibility enhanced by the technical superiority made possible by Western societies and economies. On the defensive, the only accepted and the only possible NATO orientation, this approach involved trading space for time; building strong, mobile reserve forces; and putting these forces

under men possessing the nerve to let an enemy push forward to the exact limits of his strength and only then slashing into his flanks to threaten his supply lines and communications networks.<sup>18</sup>

During World War II, German failure to employ these techniques properly in the east was generally ascribed to Hitler's increasing obsession with holding ground. Yet Hitler's concept was the more relevant one for NATO planners. The Wehrmacht's ideal vision was adapted to war waged on an opponent's territory. Trading space for time is a plausible concept only when the space does not matter. The geography of NATO—with no ground to spare—made exchanges of the kind advocated by Manstein in 1943 unthinkable, especially given

the increasing destructive capacity of conventional weapons.

Morale also demanded consideration. Given the determination of the Federal Republic and its alliance partners to make the new West German army a citizen force with deep roots in the population, could Bundeswehr soldiers reasonably be expected to behave like the hardened Landsknechts of the eastern front, particularly in the first days of a war? Could they be relied on to fight while their own homes disappeared behind the front lines, with the implica-

*If war breaks out in Europe, the troops of the nationally diverse NATO alliance will need to work together smoothly and efficiently. Exercises between American and European forces help to integrate the efforts of the allied countries.*





tion that liberation meant destruction even without the use of atomic weapons?

The beginnings of an answer emerged as an increasing number of German historical studies of the eastern front moved away from Operation Barbarossa and the drive for Stalingrad to concentrate on the "hammer and anvil" defensive battles of 1943-45. This development arguably had less to do with contemporary defense concerns than with the desire to break new research ground, combined with historians' growing ability to reconstruct events from the relatively chaotic records of defeat. But it blended with and underwrote the personal experience of the Bundeswehr officers who had led platoons, companies, or battalions in Russia during that period.



When considered from a German perspective, the tactical and operational evidence of the war's final years strongly suggested that conventional Western forces, properly trained, equipped, and commanded, had the capacity to check any conventional Warsaw Pact offensive in central Europe before the offensive achieved more than limited and temporary breakthroughs. Under best-case circumstances, this capacity itself became part of a successful deterrent. And if deterrence failed, the Warsaw Pact could be stopped on the ground at subnuclear levels, giving political leaders on both sides a breathing space for reflection before escalation.<sup>19</sup>

From its inception, the Bundeswehr has been shaped along the lines of the force Hitler's generals would like to have commanded in Russia. The consistent implication underlying its structure has been that it must be able to do quickly on the defensive what the numerically and materially inadequate Wehrmacht had required more time and space to do. On the eastern front it was often necessary to let the Russians exhaust and disorganize themselves before turning to strike. Now, at least at the corps and divisional levels, the Bundeswehr sees itself in a position to blunt and cut off Warsaw Pact spearheads immediately.

Specifically, the Bundeswehr stresses C<sub>I</sub> emphatically in theory and almost as strongly in practice. Its teeth-to-tail ratio, while not up to Warsaw Pact standards, remains impressive in terms of its own alliance. Its Luftwaffe may be organizationally separate but has been allowed to entertain no nonsense about an independent mission. Interdiction, reconnaissance, and close ground support set the parameters of

*A recent U.S. Air Force order for fifty C-5B heavy transports will bolster the force of C-5As (above). Should the Warsaw Pact forces attack Western Europe, these planes would rush reinforcements from the continental United States. . . . Western military planners must assume, however, that NATO airfields will be under attack and that allied air units will have to conduct operations from damaged airfields contaminated by chemical and biological agents. The German soldier shown below is using a hose gun to decontaminate an RF-4 during a joint NATO exercise.*

aircraft procurement, organization, and training. The Bundeswehr is heavily mechanized, with tanks and infantry closely integrated and trained for that mutual cooperation which was so vital in Russia. It is NATO's major advocate of the armored personnel carrier as a combat vehicle, as opposed to British and U.S. concepts of a battle taxi. Its main battle tank, the Leopard, combines speed, range, and reasonable gun power as opposed to heavy armor and an extremely long-ranged gun. Thus, to some

*Computers that quantify the Soviet threat in terms of numbers of planes and tanks cannot assess the spiritual intangibles of a people who recall the horrors of World War II vividly. Memorials to heroes and heroines of the Great Patriotic War, like this one depicting a woman defiantly awaiting execution by the Nazis, are found throughout western Russia. . . . Contrary to much popular Western opinion, the Russian Orthodox Church still plays an integral part in the national spirit of the Soviet Union. Churches, such as that shown below, dot the countryside and attract the faithful.*





extent, it is the spiritual descendant of Barbarossa's Mark IIIs and IVs, rather than of the Panthers and Tigers of the long retreat. At the same time, professionalism is considered more important at all levels than enthusiasm: the attitudes of 1944 are favored over those of 1941.<sup>20</sup>

The concept is coherent and convincing. However, its institutionalization owed at least as much to default as to positive analysis. Particularly during the Federal Republic's early years, intensive discussion of defense issues risked strengthening accusations of militarism. Tradition has been heavily discounted. The

*Many Westerners point to the preponderance of log houses in Russian towns as proof of the backwardness of Soviet society, ignoring the historic role of the forest in the region. Utilization of the abundant forests, which have provided both haven against invaders and shelter from the elements, is more indicative of the relationship between a people and their environment than it is of any defect in Soviet society.*

exact permissible degree of connection with Germany's military past remains a significant subject of debate. Many generally accepted means of inculcating morale and instilling discipline—means still used in other armies—are expressly forbidden in the Bundeswehr. A major alternative approach to developing enthusiasm in conscript forces involves presenting a tangible enemy as a target for the frustrations and hostilities engendered by compulsory military service. West Germany and the United States perform this function for the Warsaw Pact. Soviet Russia is the logical, indeed the only, candidate for the role in West Germany. Political considerations have denied the Bundeswehr this possibility, replacing it instead by the concept of *Innere Führung* and an accompanying set of hopes.<sup>21</sup>

In a context thus designed to give as little offense to as few people as possible, it is hardly remarkable that Bundeswehr planners tended





to fall back on practical experience synthesized on an ad hoc basis. Yet beginning in the 1960s, a rising generation of soldiers and defense analysts argued that the Federal Republic was preparing itself, and encouraging its allies, to fight the last war in the wrong theater.

On one level, the Bundeswehr stood accused of neglecting its own stated role as a people's army. Increasingly complex weapon systems were combining with a sense of shrinking lead time to foster the belief that only fully trained men actually in service could be counted on in the next war. This significant departure from German military tradition was encouraged by comparisons with the professional armies stationed in the Federal Republic and by the contempt many Bundeswehr officers felt for the U.S. draftees of the Vietnam era. Youth unrest and the spread of individualistic, hedonistic attitudes in the West German population at large seemed powerful arguments against depending heavily for national security on citizens hastily recalled to uniform. And the steep decline in birth rates since the 1960s suggested that fewer of these citizens would be available in any case.

This approach was more than embryonic elitism. It assumed significant human and technical superiority, quality as opposed to numbers. Such superiority, however, also reflects the weaknesses of one's adversary—weaknesses whose correction usually lies outside the control of one's own systems. The Bundeswehr could do nothing to retard the Soviet Union's introduction of improved training methods, communications systems, and fighting vehicles. It could prevent neither the Soviet army's study of the lessons of World War II nor the institutionalization of those lessons in doctrine and tables of organization. The relevance of the Wehrmacht's experience in the east depended heavily, in other words, on conviction that the military weaknesses of the Russian character and the Soviet system were sufficiently established and sufficiently inflexible that Ivan would remain Ivan no matter whether he car-

ried a lance or an AK-47, no matter whether he rode a Cossack pony or a BMP.

This position, critics asserted, did not fit the facts. The Soviet army had improved exponentially since 1945. No longer the heavy, blunt instrument that had hammered down the Wehrmacht, it had become a sophisticated, modern fighting force. Nor could alleged superiority in intangible areas such as leadership and initiative be relied on as a decisive equalizer. If NATO's armies were to go into combat, they would do so after a long period of routine service in barracks and on increasingly restricted maneuver grounds. Given the best will in the world, neither the troops nor their commanders could expect to match immediately the combat skills of the Wehrmacht's veterans, to replicate performances which that force had achieved only after years of experience.

Rather than moving farther in the direction of a professionalized, mechanized Bundeswehr, critics suggested an alternate approach. This proposal essentially emphasized a forward defense of the Federal Republic by infantry formations with strong local elements, depending heavily on light vehicles for transportation and antitank missiles for firepower. Such a restructuring had its own roots in German military history, harking back to the Landwehr and Landsturm of the Wars of Liberation and the militia concepts of Karl von Rotteck's liberals and August Bebel's Social Democrats in the nineteenth century. At the same time, it encouraged looking ahead, taking advantage of new developments in weapons technology that might very likely render traditional armored vehicles obsolete.

This approach also took account, in a way existing Bundeswehr doctrine did not, of the fact that Bavaria was not the Ukraine. The map of the Federal Republic had changed significantly since 1945. Urban sprawl had combined with the increasingly complex geography of the remaining rural areas to make West Germany increasingly suited to defense in place—not a static Maginot Line, but an elastic struc-

ture that offered excellent possibility for stopping an attack without massive damage to the battleground.

Finally, restructuring the Bundeswehr along the lines suggested would remove even the state's theoretical capacity to do anything but defend itself, thereby removing once and for all any objective legitimacy that criticism of West German policies and intentions retained. Thus, in an era of détente and *Ostpolitik*, the concept seemed well suited to solve a spectrum of military, social, and diplomatic problems simultaneously.<sup>22</sup>

Dichotomies between the two approaches must not be exaggerated. The contest was not between advocates of an updated *Volkssturm* and supporters of total mechanization. Like most modern military bureaucracies, the Bundeswehr was unwilling to commit itself wholeheartedly to one alternative. Deterrence, moreover, is generally seen in terms of direct balances between force structures and weapon systems. Thus, as long as the tank was important in Warsaw Pact orders of battle, it continued to play a significant role in most proposed Bundeswehr reorganizations. At the same time, the army experimented with light formations and made increasingly sophisticated use of its reservists as individuals and in separate units.

Then the West Germans received a shock from an unexpected quarter. The United States began returning to Europe.

FOR over a decade, American professional military interest had been focused on counterinsurgency and conventional operations in Asia. While defense priorities officially remained unaltered, the Seventh Army became an empty husk, its human and material inventories depleted on a temporary basis that for awhile seemed likely to become permanent. The rapid U.S. recommitment to Europe in the early 1970s owed as much to psychological as to geopolitical considerations. Desire to erase the

shame of defeat by a burst of productive activity was reinforced by the aim of proving that U.S. Armed Forces, particularly the army, could in fact do something right.

The detachment from the European scene occasioned by the Vietnam War proved fruitful in two ways: it helped orient army thinkers away from nuclear abstractions, and it encouraged refocusing on human, as opposed to material, aspects of warfare. As the army appraised its failures and shortcomings, an increasing chorus of internal and external criticism arose against personnel management as a substitute for fighting spirit and against computerized firepower as a substitute for tactical skill. Honor, loyalty, and group identification reappeared as military virtues. Almost as much to the point, curtailed defense budgets combined with the mushrooming human costs of a volunteer military to disabuse any dreams of establishing conventional parity with, let alone superiority to, the Warsaw Pact in any significant material category in any conceivable future.

The U.S. Army's FM 100-5, *Operations*, first issued in 1976, adjusted to these new realities by its focus on defensive battle and the need to fight outnumbered and win in Europe. This emphasis marked a significant psychological and emotional departure from U.S. experience. But from the beginning, critics suggested that the new manual encouraged static thinking, the pinning of NATO forces in place to be hammered by a stronger enemy. Its approach to accepting battle well forward in the Federal Republic paid too little attention to maintaining reserves, sustaining mobility, and ensuring flexibility. Talk of NATO's superior C<sup>3</sup>I and of new generations of helicopters and armored vehicles too often seemed to forget the Soviets and their probable countermeasures. And underlying these specific criticisms was an uneasy doubt whether a U.S. military conditioned to abundance could adjust to the new austerities.<sup>23</sup>

Anxieties are often best alleviated by consulting experts. The U.S. Army had at hand a significant number of prospective advisors with



extensive experience in the problem of fighting Russians on a shoestring. The fact that these advisors' experience had ultimately been a losing one seemed less important to an army humbled by its own recent history. Taking military cues from ex-Nazis did offer certain public relations risks. However, World War II had been over for thirty years. National Socialism showed no serious signs of reviving. Eisenhower's refusal to receive his defeated opponent at the end of the Tunisian campaign seemed an increasingly quaint gesture in a world that could no longer afford crusades of any kind for the noblest of motives. Increasingly, Schörner's and Model's campaigns and the battles of von Senger und Etterlin and Hermann Balck were refought in war games and at cocktail parties from Carlisle to Leavenworth. The results were often impressive. Thus in May 1980, the Director of Net Assessment, Office of the Secretary of Defense, sponsored a war game in which Balck and his one-time chief of staff F. W. von Mellenthin de-



*As the dismal Moscow street scene above indicates, the communist system has not provided a high standard of living for the Soviet people. However, appearances can lead to simplistic generalizations. Soviet propagandists, likewise, use scenes from slums in American cities to argue that the capitalist system has failed. . . . In military matters, stereotyping can be dangerous. Racial superiority, a primary tenet of German fascism, held that the Slavs were inferior and stupid. Today, any strategy based on an assumed inflexibility in Soviet military thinking would be historically fallacious and might well prove militarily disastrous.*





fended a division sector of a U.S. corps against a Warsaw Pact attack. The old Wehrmacht hands made it look easy as they crippled two enemy tank divisions and then successfully counterattacked toward the German border against seemingly overwhelming odds.<sup>24</sup>

While no one was confusing a map room with a battlefield, Balck, Mellenthin, and their counterparts did much to establish a concrete case for initiative, flexibility, and mobility as vital elements of a successful forward defense of the NATO central front. Their points were reinforced by the publication of memoirs and biographies of several of the eastern front's most successful operational commanders, until now relatively unknown outside of Germany, whose careers seemed to prove the overriding importance of spirit and confidence in fighting the Russians.<sup>25</sup>

The shift away from material factors in evaluating NATO's military potential was enhanced by the Warsaw Pact's increasing orientation toward mechanized maneuver and toward tactics and organizations apparently designed not to overwhelm a continuous front but to rupture weak points and keep on going. *Desant* and "Operational Maneuver Group" became new buzz words in Western circles. Historians began paying attention to Soviet operations that had been carried out during the last months of World War II, finding in them unexpected levels of flexibility and sophistication.<sup>26</sup>

The results of such evaluations were disconcerting, particularly as the 1980s generated renewed emphasis on nonnuclear deterrence. The combination of superpower nuclear parity and Warsaw Pact conventional superiority lent general credibility to a point which the Bundeswehr had been arguing for decades: NATO needed to establish convincingly the point that an attack on Western Europe at any level would fail—and fail so completely that the only alternative would be negotiation or Armageddon.<sup>27</sup>

In this context, FM 100-5 in its original version increasingly appeared as too committed to

a firepower/attrition model on one hand and to penny-packet maneuvering on the other. Effective forward defense was considered to require the addition of an important adjective: flexible. Emphasis on maneuverability was rendered even more necessary by the Federal Republic's growing commitment to improved relations with the German Democratic Republic and by the related growth of nationalism and neutralism in Germany. These facts nurtured a corresponding reluctance to establish any kind of permanent or visible obstacle system. Passive nuclear barriers, comprehensive mining of the border region, or even more conventional methods of fortification remain theoretical abstractions as long as West Germany refuses to make major physical concessions to the notion of permanent partition.<sup>28</sup>

Challenge generated response. And the response has been to turn to the lessons of history as opposed to the suggestions of theory. Far from incorporating radical reconceptualizations, the West German Model IV army structure and the U.S. Division 86 represent new triumphs of the Wehrmacht legacy in their level of mechanization, their adoption of smaller tactical units, and their decentralization of command responsibilities. Doctrinally, the revised version of FM 100-5 and the current HDv100/100 are similarly closely related. The Bundeswehr's emphasis on local counterattacks, leading to the separation of an enemy's spearheads from their follow-up elements by carefully timed operations against his flanks and rear, blends with the U.S. concept of the AirLand Battle as an initial dogfight leading to deep penetration of Warsaw Pact rear areas. Both owe much to concepts of the fluid battle developed on the eastern front from 1943 to 1945.<sup>29</sup>

Less tangible aspects of the German experience are also increasingly evident. The Bundeswehr never sacrificed the morale benefits of unit integration provided by territorial recruiting, whose equivalent the U.S. Army now hopes to foster by its revised regimental system.

Both forces stress initiative and personal leadership, particularly at junior levels. A self-conscious Bundeswehr and a zero-defects-oriented U.S. military are even willing, at least in principle, to consider allowing their captains and lieutenants to make and learn from mistakes in peacetime training. Vietnam-era images of three or four senior officers, each with his own radio frequency and his private helicopter, stacked above a platoon-scale fire fight are giving way to awareness that in a conventional war on the NATO central front, colonels and generals will have other things to do as they did in Russia.

Ultimately, organizations and attitudes in both the U.S. Army and the Bundeswehr are increasingly designed to institutionalize the axiom that the purpose of combat is to impose one's will on an adversary. This new vitalism does not imply complete regression to pre-1914 modes of military thought, with their relative indifference to rational calculation and material factors. It does involve the belief, explicit or implied, that nonquantifiable factors—command style, fighting spirit, initiative, and self-confidence—can counterbalance not only numbers but technology when Western troops are pitted against Slavs in general, Russians in particular. And this conviction is a direct manifestation of the German military heritage.<sup>30</sup>

Doctrines reflect political as well as military circumstances. The Wehrmacht may have done no more than buy time after 1943, but time is all that NATO asks of its conventional forces. The German legacy, moreover, makes a significant appeal to budget politics. In states increasingly uncomfortable with demanding service of any kind from their citizens and increasingly willing to accept a position of numerical and material military inferiority rather than pay the costs of parity, it offers the hope of a free military lunch. Instead of building tanks, build morale. Instead of improving strength ratios, improve quality. Against the driven hordes of the Warsaw Pact, pit the motivated individualists of NATO. And all of this can be achieved

without cutting civilian entitlements. It only requires new—or restored—emphasis on the warrior's virtues on the part of men paid and expected to incorporate these virtues.

Even optimists might reasonably question whether these kinds of intangible combat multipliers, with their emphasis on risk-taking and sacrifice, can be generated or sustained to any degree in societies increasingly stressing risk avoidance and comfort as desirable norms.<sup>31</sup> Necessarily, then, the credibility of this approach reflects and depends heavily on the revival of certain attitudes about the Russian people. The ideological visions of the cold war and the mirror images of détente are alike giving way to a stress on the continuities of Russian history and a corresponding emphasis on Russian national character. Journalists illustrate comprehensive patterns of Soviet civic decay, disillusion, and cynicism. Scholars present a Soviet political system that is a village commune written large. Military analysts describe a uniformed Potemkin village, its officer corps riddled with careerism and protection, its brutalized conscripts seeking temporary oblivion in radiator alcohol.<sup>32</sup>

These images imply, not so subtly, that the Russian army, and by extension its allies, can be checked without making extraordinary demands on the bodies of Western youth or the psyches of Western generals. They blend conveniently with the portrait, developed and nurtured for over a century in Germany, of the Russian soldier as a military primitive, unable to use his equipment as well as it deserves and unable to apply his doctrines effectively no matter how good they look on paper. This complex of attitudes has significant roots in Russo-German military interaction. But it is also the product of antagonisms and prejudices having little to do with abstract analysis. It incorporates hopes and expectations as well as logic.

THERE is much to learn, generally and specifically, from German interpretations of World



War II. These interpretations, however, do not exist in a vacuum. The German military legacy incorporates no unique genius for war, nor does it present a book of recipes on how to fight the Russians and win. Instead, it offers a seductive blend of cultural arrogance and military vitalism that cost the Germans dearly in two world wars. The legacy also encourages minimizing a familiar point. Presented in the elegant mathematics of the Lanchester Square Law, it asserts that the combat relationship of opposing forces is governed by the expected rate of exchange between them. This rate, in turn, is determined not by respective raw numerical strengths, but by the *square* of those strengths; the effect of the larger available force is correspondingly multiplied. An experienced

brawler will express the concept more simply: a good big man usually beats a better little man.<sup>33</sup>

The scholar and the soldier tend toward opposite intellectual poles. One deals in caveats; the other in "can do." One seeks the fourth side of any three-sided question; the other stresses the need for closure. But while historians may rejoice at the prospect of their discipline replacing business administration as the preferred subject of study for YUMMPIES (Young Upwardly Mobile Military Professionals), it would be correspondingly unfortunate to see careerists merely accept a new set of clichés. The Russo-German military relationship is a gift horse whose mouth requires careful examination.

Colorado College

#### Notes

1. Cf. Trevor N. Dupuy, *Numbers, Prediction and War* (New York, 1979); Martin van Creveld, *Fighting Power: German and U.S. Army Performance, 1939-1945* (Westport, Connecticut, 1983); and Max Hastings, *Overlord: D-Day, June 6, 1944* (New York, 1984).

2. The thesis of Viktor Hehn, *De moribus Ruthenorum. Zur Charakteristik der russischen Volksseele*, edited by T. Schiemann, reprint of 1892 edition (Osnabrück, 1966). This compendium of anti-Russian insults compiled by a Baltic German is typical of a large body of similar material.

3. See the discussion in Dennis E. Showalter, "The Eastern Front and German Military Planning, 1871-1914: Some Observations," *East European Quarterly*, vol. XV, 1981, pp. 163-80.

4. For the evolution of German war aims in the east, cf. Fritz Fischer, "Deutsche Kriegsziele. Revolutionierung und Separatfrieden im Osten 1914-1918," *Historische Zeitschrift*, no. 188, 1959, pp. 249-310; and Holger H. Herwig, "Tunes of Glory at the Twilight Stage: The Bad Homburg Crown Council and the Evolution of German Statecraft, 1917-1918," *German Studies Review*, vol. VI, 1983, pp. 475-94.

5. Blomberg's report of 17 November 1928, is printed in F. L. Carsten, "Reports by Two German Officers on the Red Army," *The Slavonic and East European Review*, vol. XLI, 1962, pp. 218-41.

6. For background, cf. Bruno Thoss, "Menschenführung im Ersten Weltkrieg und im Reichswehr," *Menschenführung im Heer*, edited by Militärgeschichtliches Forschungsamt (Herford, 1982); and Manfred Messerschmitt, "The Wehrmacht and the Volksgemeinschaft," *Journal of Contemporary History*, vol. XIII, 1983, pp. 719-44.

7. George H. Stein, "Russo-German Military Collaboration: The Last Phase, 1933," *Political Science Quarterly*, vol. LXXVII, 1962, pp. 54-71.

8. Cf. Andreas Hillgruber, "Das Russland-Bild der führenden deutschen Militärs vor Beginn des Angriffs auf die Sowjetunion," in *Russland-Deutschland-Amerika . . . Festschrift für Fritz Epstein zum 80. Geburtstag*, edited by A. Fischer et al. (Wiesbaden, 1978),

pp. 296-310; and Ernst Klink, "Die Rote Armee im Urteil des Oberkommandos des Heeres seit September 1939," in Horst Boog et al., *Der Angriff auf die Sowjetunion*, vol. IV of *Das Deutsche Reich und der Zweite Weltkrieg* (Stuttgart, 1983), pp. 191-202.

9. The latter point is well established in Karl Klee, *Das Unternehmen "Seelöwe." Die geplante deutsche Landung in England 1940* (Göttingen, 1958).

10. The best recent analysis of Wehrmacht preparations for Barbarossa is Ernst Klink and Horst Boog, "Die militärische Konzeption des Krieges gegen die Sowjetunion," in *Der Angriff auf die Sowjetunion*, pp. 190-326. The improvisational, ad hoc nature of the blitzkrieg in general has been heavily stressed, and arguably exaggerated, in some recent works, such as Wilhelm Deist, *The Wehrmacht and German Rearmament* (Toronto, 1981); and Matthew Cooper, *The German Army 1933-1945: Its Political and Military Failure* (London, 1978).

11. Among examples chosen almost at random from issues of the leading GDR journal of military history, *Militärgeschichte*, cf. Paul Heider, "Internationalistische Militärpolitik der KPD zur Verteidigung der Sowjetunion gegen imperialistische Aggressionen," vol. XXI, 1982, pp. 541-46; Klaus-Ulrich Keubke and Toni Nelles "Unter dem Kampfbanner von Karl Marx—Die NVA in sozialistischen Waffenbündnis," vol. XXII, 1983, pp. 32-39; and Klaus-Ulrich Keubke, "Zur Entwicklung der Waffenbrüderschaftsbeziehungen der Landstreitkräfte," vol. XXII, 1983, pp. 604-13.

12. A useful overview is T. M. Forster, *The East German Army: The Second Power in the Warsaw Pact*, translated by D. Viney, introduction by General Sir Harry Tuzo (London, 1980). For an examination of operational factors, see William C. Martel, "East Germany," in *Fighting Armies: NATO and the Warsaw Pact, A Combat Assessment*, edited by R. A. Gabriel (Westport, Connecticut, 1983), pp. 204-28.

13. Cf. Harry Borowski, *A Hollow Threat: Strategic Air Power and Containment before Korea* (Westport, Connecticut, 1982).

14. Alfred Grosser, *Germany in Our Time*, translated by Paul



Stephenson (New York, 1971), pp. 80-81.

15. The most comprehensive treatment of the genesis of the Bundeswehr is Roland C. Foerster et al., *Anfänge westdeutscher Sicherheitspolitik 1945-1956*, vol. I, *Von der Kapitulation bis zum Pleven-Plan* (Munich, 1982). Cf. also Klaus von Schubert, *Wiederbewaffnung und Westintegration. Die innere Auseinandersetzungen um die militärische und Aussenpolitische Orientierung der Bundesrepublik 1950-1952* (Stuttgart, 1970); and Hans Speidel, *Aus unserer Zeit. Erinnerungen* (Berlin, 1977).

16. For a recent overview of developments in this area in a journal that can never be remotely accused of Red-baiting, see "'Pangermanisches Fieber'—bis in die DDR," *Der Spiegel*, 13 August 1984, pp. 19-27.

17. Interview in London *Evening Standard*, 28 March 1983; private communication. On the Federal Republic's nuclear policy generally, see R. F. Driscoll, "West German Nuclear Politics: A Study of International Cooperative Behavior" (Ph.D. dissertation, American University, 1983); older but still sound is Catherine M. Kelleher, *Germany and the Politics of Nuclear Weapons* (New York, 1975).

18. This interpretation began with B. H. Liddell Hart, *The German Generals Talk* (New York, 1948) and was continued in such works as Erich von Manstein, *Lost Victories*, reprint edition, translated and edited by A. G. Powell, foreword by B. H. Liddell Hart, introduction by Martin Blumenson (Novato, California, 1982), pp. 371 passim; and Heinz Guderian, *Panzer Leader*, foreword by B. H. Liddell Hart, translated by C. Fitzgibbon (New York, 1952), pp. 296-97, 314 ff. Typical of more specialized works with a similar approach are Hermann Hoth, *Panzeroperationen* (Heidelberg, 1956); and Walther Chales de Beaulieu, *Der Vorstoss der Panzergruppe 4 auf Leningrad* (Neckargemünd, 1961).

19. See F. M. von Senger und Etterlin, *Der Gegenschlag: Kampfbeispiele und Führungsgrundsätze der beweglichen Abwehr* (Neckargemünd, 1959); Hans Kessel, *Die Panzerschlachten in der Puszta* (Neckargemünd, 1960); and F. Kurowski, *Armee Wenck* (Neckargemünd, 1967). More familiar to U.S. readers is F. W. von Mellenthin, *Panzer Battles* (Norman, Oklahoma, 1956). Cf. also Helmut Schmidt, *Verteidigung oder Vergeltung. Ein deutscher Beitrag zum strategischen Problem der NATO*, fourth edition (Tübingen, 1965).

20. A good recent overview of the Bundeswehr's capacities and doctrines is William C. Reinagel, "West Germany," in *Fighting Armies: NATO and the Warsaw Pact*, pp. 104-28. An East German perspective is given in Wolfgang Roschlau, "Grundzüge der strukturellen Entwicklung der BRD-Landstreitkräfte in den letzten 30 Jahren," *Militärgeschichte*, vol. XXII, 1983, pp. 397-412.

21. Georg Meyer, "Menschenführung im Heer der Bundeswehr, 1955-1969," *Menschenführung im Heer*, pp. 204-51. Additional useful sources on this topic are K. M. Kodalle, *Tradition als Last? Legitimationsprobleme der Bundeswehr* (Köln, 1981); and Peter Wullich *Die Konzeption der "Inneren Führung" der Bundeswehr als Grundlage einer allgemeinen Wehrpädagogik* (Regensburg, 1981).

22. These interlocking debates, each of which generated its own voluminous bibliography, can be followed summarily in the FRG's annual white papers on security and military development. Early works include F. O. Miksche, *Die Zukunft der Bundeswehr. Gedanken über den Umbau der Westdeutschen Verteidigung* (Stuttgart, 1967); and Horst Ahlfeldt, *Verteidigung und Frieden: Politik mit militärischen Mitteln* (Munich, 1976). Major recent contributions are F. Uhle-Wettler, *Gefechtsfeld Mitteleuropa—Gefahr der übert. chnisterung von Streitkräften* (Munich, 1980); and *Weder Rot noch Tot—Überleben ohne Atomkrieg—Eine Sicherheitspolitische Alternative*, edited by J. Löser (Munich, 1981).

23. The background of the new manual is discussed in Robert A. Doughty, "The Evolution of U.S. Tactical Doctrine, 1946-76," *Leavenworth Papers*, no. 1 (Fort Leavenworth, Kansas, 1979). Modification of this manual is described in John L. Romjue, *From*

*Active Defense to AirLand Battle: The Development of Army Doctrine 1973-1982* (Fort Monroe, Virginia, 1984).

24. BDM Corporation, *Generals Balck and von Mellenthin on Tactics: Implications for NATO Military Doctrine* (McLean, Virginia, 1980).

25. Cf. inter alia F. W. von Mellenthin and R. H. S. Stolfi with E. Sobik, *NATO under Attack: Why the Western Alliance Can Fight Outnumbered and Win in Central Europe without Nuclear Weapons* (Durham, North Carolina, 1984); Michael A. Phipps, "A Forgotten War," *Infantry*, November-December 1984, pp. 38-40; and Richard F. Timmons, "Lessons from the Past for NATO," *Parameters*, Autumn 1984, pp. 3-11. Timmons's essay is based on a March 1984 symposium on operations on the eastern front held at the U.S. Army War College. Biographies and autobiographies include Walter Görnitz, *Model, Stratege der Defensive* (Wiesbaden, 1975); Hermann Balck, *Ordnung im Chaos* (Osnabrück, 1981); and Dermot Bradley, *Walther Wenck, General der Panzertruppe* (Osnabrück, 1982).

26. A useful and up-to-date bibliography can be found in Richard Simpkin, *Red Armour: An Examination of the Soviet Mobile Force Concept* (McLean, Virginia, 1984). Two excellent works on Soviet military thought are Peter Vigor, *Soviet Blitzkrieg Theory* (London, 1983); and David Isby, *Weapons and Tactics of the Soviet Army* (London, 1981).

27. For a brief and clearly written article on the growing dichotomy between nuclear weapons and actual, relevant war-fighting capacity, see Michael Howard, "On Fighting a Nuclear War," *International Security*, Spring 1981, pp. 3-17. James M. Garrett, "Conventional Force Deterrence in the Presence of Theater Nuclear Weapons," *Armed Forces and Society*, XI (1984), pp. 59-83, is an up-to-date survey of the issue. Technological multipliers are the focus of the report of the European Security Study, *Strengthening Conventional Deterrence in Europe: Proposals for the 1980s* (New York, 1983). The historical perspective is covered by John J. Mearsheimer, *Conventional Deterrence* (Ithaca, New York, 1983).

28. Cf. John Keegan, "Soviet Blitzkrieg: Who Wins?" *Harper's*, May 1982, pp. 46-53.

29. Cf. General D. A. Stary, "Extending the Battlefield," *Military Review*, March 1981, pp. 32-50; and Lieutenant Colonel L. D. Holder, "Maneuver in the Deep Battle," *Military Review*, May 1982, pp. 54-61. See also Samuel P. Huntington, "Conventional Deterrence and Conventional Retaliation in Europe," *International Security*, Winter 1983-84, pp. 32-56. Huntington is among those defense analysts arguing that conventional retaliation, the ability to occupy Warsaw Pact territory, significantly enhances the conventional deterrent's credibility. An interesting work that puts "dynamic forward defense" in a future-war scenario is Elmar Dinter and Paddy Griffith, *Not Over by Christmas: NATO's Central Front in World War II* (New York, 1983). For an operationally conservative critique of this vision, see Arie van der Vjils, "Airland Battle in NATO. A European View," *Parameters*, Summer 1984, pp. 10-14.

30. See Martin van Creveld, "Bundeswehr Manpower Management," *RUSI and Brassey's Defense Yearbook 1983* (Oxford, 1983), pp. 47-72. This work is an especially perceptive evaluation in a West German context of the continuing gaps between doctrine and behavior in questions of initiative.

31. For a useful collection of essays on the problems of legitimating armed forces in the contemporary Atlantic world, see *Armed Forces and the Welfare Societies: Challenges in the 1980s*, edited by Gwyn Harries-Jenkins (New York, 1983). It is worth stressing in this context that the attitudes of risk avoidance and comfort can permeate high commands as well as barracks.

32. For up-to-date general statements of the new conventional wisdom on the nature of Soviet Russia, see Dimitri K. Simes, "The New Soviet Challenge," and John M. Joyce, "The Old Russian Legacy" in *Foreign Policy*, vol. LV, 1984, pp. 113-31, 132-53. Familiar from a military standpoint are the works of "Viktor Suvorov."

such as *Inside the Soviet Army* (New York, 1983); as well as Andrew Cockborn, *The Threat: Inside the Soviet Military Machine* (New York, 1983).

33. For details of the model and its origins in the work of F. W. Lanchester, see Shelford Bidwell, *Modern Warfare: A Study of Men,*

*Weapons and Theories* (London, 1973), p. 65 ff. Barry R. Posen, "Measuring the European Conventional Balance: Coping with Complexity in Threat Assessment," *International Security*, Winter 1984-85, pp. 47-88, is a more optimistic assessment of the exchange-rate issue.

#### **AIR UNIVERSITY REVIEW AWARDS PROGRAM**

Lucien S. Vandenbroucke has been selected by the *Air University Review* Awards Committee to receive the annual award for writing the outstanding article to appear in the *Review* during fiscal year 1984. His article, "The Israeli Strike against Osiraq: The Dynamics of Fear and Proliferation in the Middle East," was previously designated the outstanding article in the September-October 1984 issue. The other bimonthly winners for 1983-84 were Dr. Jonathan R. Adelman, "American Strategic Nuclear Modernization and the Soviet Succession Struggle," November-December 1983; Rebecca V. Strode, "Soviet Design Policy and Its Implications for U.S. Combat Aircraft Procurement," January-February 1984; Major Thomas G. Waller, Jr., USA, "The Inferno of People's War," March-April 1984; David MacIsaac, "The Nuclear Weapons Debate and American Society: A Review of Recent Literature," May-June 1984; Dr. Williamson Murray, "Ultra: Some Thoughts on Its Impact on the Second World War," July-August 1984.

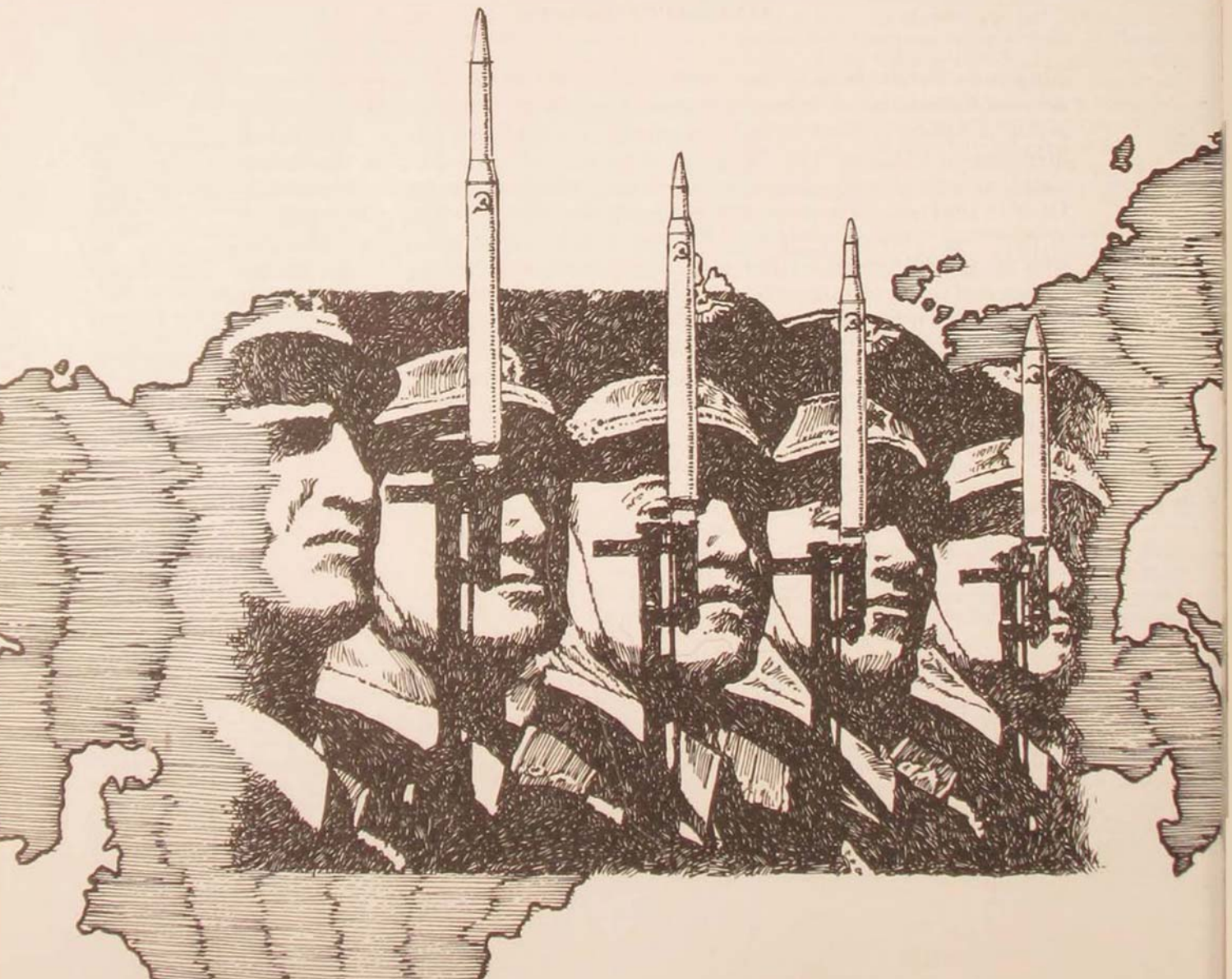


# THE EVOLUTION OF SOVIET MILITARY DOCTRINE, 1945-84

DR. JONATHAN R. ADELMAN

**I**N EXPLORING the evolution of Soviet military doctrine in the nearly four decades since the end of World War II, one might wish to encompass the scope indicated by Fritz Ermarth's definition of military doctrine—that is, "a set of operative beliefs and principles that in a significant way guide official behavior with respect to military research and develop-

ment, weapons selection, deployment of forces, operational plans, arms control, etc."<sup>1</sup> However, a comprehensive examination of such a large topic is obviously beyond the capabilities of this article. Therefore, I shall focus on the single most important aspect of Soviet military doctrine—the question of the nature of a future major war and how to fight it. Clearly, the





Soviet military leaders see this as the essential question, for they have defined military doctrine as

. . . the sum total of scientifically based views accepted by the country and its armed forces on the nature of contemporary wars that might be unleashed by the imperialists against the USSR, and the goals and missions of the armed forces in such a war, on the methods of waging it, and also on the demands which flow from such views for the preparation of the country and the armed forces.<sup>2</sup>

With the demise of *détente* and the resurgence of intensified rivalry between the two superpowers in the 1980s, the Soviet view of the nature of a major war—and the factors producing the view—command inherent interest. Historically, the power of visions of future war cannot be disputed in the development of military history. From the German Schlieffen Plan in World War I to the French Maginot Line in World War II to American counterinsurgency in the Vietnam War, ideas about future wars have played a key role in influencing the actual conduct of war. These visions also reveal much about the nature of the states that produced them. Thus, as I attempt to trace the evolution in the Soviet image of war in the postwar era, I shall also discuss those factors that helped produce change.

**I**N understanding the Soviet view of war, it is necessary to overcome our own innate, deep-seated ethnocentrism. As Raymond Garthoff has counseled, "In order to establish the strategic thought and doctrine of an alien military culture, it is first necessary to escape the confines of one's own implicit and unconscious strategic concept."<sup>3</sup> This is an important caveat, for Soviet military doctrine—which is primarily the domain of military professionals in the Soviet Union, not civilian theorists as in the United States—is far from simply a pale reflection of American military doctrine. There are fundamental differences not only between

Soviet and American politics but also between Soviet and American military doctrines—differences that must be initially understood before any meaningful analysis can proceed. Thus, Roman Kolkowicz recently observed:

It is clear by now that there are several fundamental disparities between Soviet and American approaches to strategy, foreign policy, and the uses of force in pursuit of the national interest. The main reason for the persistence of these conceptual, perceptual, and doctrinal disparities lies in the asymmetrical nature of the two belief systems and in cultural, historical, and political factors. We are dealing with two orthodoxies, mutually exclusive by their nature, each claiming a monopoly on "scientific" truth.<sup>4</sup>

Reflecting the advanced industrial superpower status achieved in the postwar era, Soviet decision making is a complex, multidimensional process. No single factor—whether ideology, technology, or international military environment—can adequately describe the process and its outcome.

Soviet military doctrine serves a series of peacetime interests of both a symbolic and substantive nature, which may have limited relevance in wartime. As a functional equivalent of ideology for the party, military doctrine serves as a bureaucratic rationale for extensive development and acquisition of new weapons by the military. Military doctrine serves to enhance the morale of the military by asserting and demonstrating the possibility of victory in a nuclear war. By emphasizing the powerful and diverse threats facing the Soviet Union, it legitimates the need for a strong Soviet state and military. Furthermore, intentionally or otherwise, such views may serve to influence Western and Chinese military behavior.

Soviet observers have made it clear that, in wartime, doctrine will necessarily be superseded by other considerations. Thus, Major General S. Kozlov has written:

Although war is a continuation of politics, with the onset of war a distinct change occurs. During war, military doctrine . . . withdraws somewhat into the background. War is to be guided primar-

ily by military political and military strategic considerations.<sup>5</sup>

In this context, it is important to emphasize that in wartime, with all its uncertainties and fatefulness for the future of the nation, it is precisely the political aspects of the doctrine that will come to the fore. Therefore, the professional military men, who largely set the terms of the doctrine, will be overshadowed to a large extent by civilian party leaders with their own agenda. On this point the Soviet military is clear: while it will have significant input in the technical sphere, the ultimate questions will be decided by the political leadership. A well-known Soviet textbook puts the issue this way:

Politics determines the priority and strength of blows inflicted on the enemy, measures taken to strengthen allied relations within the coalition and general strategic plan of war. . . . Politics, by taking into account the strategic possibilities at its disposal, must determine the speed and intensity of military actions, and also forces and means it is necessary to mobilize in order to attain the aims intended, etc. In doing so, politics takes into account not only the aims of war but also of the post-war settlement and subordinates the conduct of the war to attainment of these aims.<sup>6</sup>

The critical question then becomes the nature of Soviet behavior in crisis. The record in the nearly forty years since the end of World War II has shown that Soviet political leaders (with the exception of Khrushchev) have been cautious and conservative in crises. They have shown a marked aversion to the high degree of risk-taking manifest in Soviet military doctrine. These leaders also have placed high priority on the maintenance of their empire, intervening in Hungary (1956) and Czechoslovakia (1968) and pressuring General Wojtech Jaruzelski into imposing martial law in Poland in 1981. But these actions represented little risk of confrontation with the West. Only once in thirty-eight years did the Soviet Union use force outside the Warsaw Pact—in Afghanistan in 1979—where and when there was no chance of Western military intervention. And

in other crises—China in 1969, the Middle East in 1973, and Poland in 1980—the Soviet Union clearly contemplated military intervention but did not proceed to carry it out. Even in Cuba in 1962, under the volatile Khrushchev, the Soviet Union backed away from confrontation. Thus, the overall record of the Soviets is far more conservative and cautious than the tone of their doctrinal pronouncements.

### Influences on Soviet Military Doctrine

A complex set of factors—including international military environment, international political environment, foreign military doctrines, military history, technology, ideology, and internal political, social, and economic constraints—influences the creation of Soviet military doctrine. Of the external factors, the international military environment is perhaps the most critical.

The perceived strategic balance with the United States and theater balances in Asia and Europe are of the greatest concern to Soviet military planners. Such sentiments were noted by Michael McCgwire:

Soviet military doctrine has evolved in response to what have been seen as a series of direct threats to the state's existence. . . . Nuclear testing aside, Soviet actions and the doctrines behind them must be seen as responses to the perceived threat posed by American decisions.<sup>7</sup>

Comparable views have been expressed by Benjamin Lambeth, who has observed that "we may safely suggest that shifts in Soviet military doctrine—if not in the hardware base that supports it—often display notable consistency with changes in the external strategic milieu."<sup>8</sup> Similarly, the kinds of weapons available and the question of deterrent stability have been significant factors for determining military doctrine.

Where the effects of international political environment are concerned, assessments of war probability, over time, condition the leadership's political component of doctrine. Periods



of growing perceived threat may yield one set of conceptions, while periods of international calm may lead to another.

Far from being created in a void, Soviet military thinking has been often influenced significantly by foreign military doctrinal writings. Clausewitz had a definite and profound influence on Soviet military thinking. So, too, did German military theory with its stress on blitzkrieg warfare.

Soviet military history has been an important factor in shaping current doctrine. Past experiences are crucial because of their impact in molding Soviet perspectives. World War II, with its twenty million Soviet deaths, profoundly influenced Soviet attitudes. As one writer has observed, "lessons learned by the Soviet military leadership during World War II . . . provided the most important impetus to the development of modern Soviet military doctrine."<sup>9</sup>

In addition to these major influences on Soviet doctrine, two autonomous factors—technology and ideology—have played a serious role in shaping Soviet views. Technological innovations, in particular, have played a key role. As John Erickson has written, "Thanks to developments in armaments and technology, we are seeing for the first time an adjustment in the previous Soviet views that rapid escalation to the use of nuclear weapons was inevitable."<sup>10</sup>

Simultaneously, Marxism-Leninism, while declining in importance, still represents "something more than officious ritualism."<sup>11</sup> Ideology helps frame the context and terminology of the strategic culture. Its primary impact has been indirect, rather than direct.

Finally, the internal political, economic, and social constraints and the nature of Soviet decision making have a considerable influence on the nature of Soviet military doctrine. Perhaps Benjamin Lambeth has best analyzed and summarized this situation:

Soviet doctrine is constantly buffeted within the contained universe of Soviet decision making by countervailing institutional claims. . . . Conse-

quently, it tends to constitute something of a "committee compromise" among the most divergent interests of the military, political, and defense industry elites, and also to mirror, through its occasional internal contradictions, those conflicts which remain unresolved or seem endemic to the Soviet system.<sup>12</sup>

Thus, Soviet military doctrine arises from the interaction of a multitude of often conflicting pressures—pressures that have varied in magnitude and impact in the years since 1945 through the Stalin, Khrushchev, Brezhnev, and post-1982 eras.



Post-World War II  
Stalin Era  
(1945-53)

Soviet military doctrine during the last years of the Stalin era from 1945 to 1953 was influenced substantially by Soviet experiences during World War II. Repeatedly, Soviet writers have emphasized the formative impact of the war on military doctrine during those postwar years. A future major war was seen as cast in the mold of World War II—that is, as a protracted land war in which ground troops, supported by tanks, artillery, and planes, would play the decisive role.<sup>13</sup>

In this conventional context, the role of nascent nuclear weapons remained ambiguous. The Soviet military had been working on rocket technology in the 1930s and had exploded an atomic bomb in 1949. These ventures would be followed by a Soviet hydrogen bomb in 1953. As a result, a certain amount of theoretical attention was paid to nuclear weapons during the last years of the Stalin era, as the

Soviets developed methods for military operations using nuclear weapons and principles regarding troop operations following nuclear strikes.<sup>14</sup> Nevertheless, Stalinist military doctrine generally emphasized conventional land war over possible nuclear air war.

A major war, Soviet leaders believed, could be launched either by a surprise attack by capitalist powers on the Soviet Union or by gradual escalation of local wars into a major war. If the war were initiated by a surprise attack, though, a number of factors would affect the outcome. In 1950, Stalin indicated, "Now the outcome of the war will be decided not by such an attendant moment as the moment of surprise but by the permanent operating factors of war as the stability of the rear, morale of the army, quantity and quality of divisions, armaments of armed forces and organizing ability of commanders."<sup>15</sup> These factors, not surprise, would determine the course of a lengthy war, which, he believed, would inevitably result in a victory for the Soviet Union.

Finally, in the projected inevitable clash between capitalism and socialism, both offense and defense would play a key role, as they did in World War II. Victory was seen as resulting from the accumulation of successful battles fought along continuous and slowly changing fronts. Frontal breakthroughs would be achieved by the deliberate massing of soldiers and equipment on the main axis of attack, with a high density of men, tanks, artillery, and planes in the strike sectors, followed by envelopment and thrusts to the rear. Ground forces would be predominant in the European theater of a future war. Defense would be significant, especially in the early stages of the conflict.<sup>16</sup>

Above all, it is important to remember that while military commanders had significant input into military theory, it was Stalin who ultimately put his imprimatur on all views of a future war. Stalin's pronouncements were particularly viewed as the final authority during the postwar years when there was endless praise for Stalin for winning World War II.<sup>17</sup>

### *influences*

While World War II in significant part laid the basis for Stalinist orthodoxy, strikingly there was no examination of the major failures of 1941 and 1942. Furthermore, foreign military doctrines were assiduously ignored in this xenophobic era of the *Zhdanovshchina*, a purge of all foreign influences and "rootless cosmopolitanism." And, most strikingly, despite the advent of nuclear weapons and rockets that would become the decisive factors in modern warfare, modern weapons that would revolutionize major warfare were totally ignored in the doctrine. This omission is curious, since rockets and nuclear weapons had already been used by the end of World War II and the Soviets were since engaged in a major effort to develop rockets and nuclear weapons.<sup>18</sup>

But a series of other factors did strongly influence the formation of Soviet military doctrine. Most important was the nature of the political system. In the highly authoritarian system dominated by an aging, increasingly paranoid Stalin (whose launching of the Doctors' Plot in 1952 seemed to set the stage for a renewal of mass purges before his death cut preparations short), the psychology of the leader assumed decisive significance. Claiming credit for wartime victories (Georgy K. Zhukov, who directed Soviet forces in World War II, was demoted in 1946 to a provincial military command), Stalin elevated to doctrinal status those features that he believed responsible for victory. He ignored new developments (technology), the role of surprise, foreign developments, and the failures of 1941 and 1942, regarding these as irrelevant to war victories. Yet, ever the pragmatist, Stalin did promote a major nuclear program as insurance against future developments.

Despite Stalin's xenophobic attitudes, the international military environment also was a major factor in influencing Soviet military doctrine. During this period, U.S. superiority in strategic nuclear weaponry and air power



was a major fact of life. It prompted a Soviet emphasis on strong conventional defenses and possible offensive counterattack into Europe from advantageous Soviet bases in Eastern Europe.

Similarly, the international political environment was also an important factor. On one hand, socialist gains in Eastern Europe and China greatly strengthened the Soviet position and ended threatening "capitalist encirclement." Yet the emergence of the superpower United States—dominant in Western Europe, unharmed by the war, and armed with nuclear weapons—posed new and dangerous threats to the Soviet Union. In this context, active defense was logical with reliance on tested ground forces and advantageous geography during the cold war.

Marxist-Leninist ideology also played a role. Stalin was influenced by Marxist concepts of inevitable wars arising between capitalism and socialism and of the irradicable enmity of the capitalist West.

In addition, objective constraints and historical experiences were significant factors. World War II remained Stalin's dominant frame of reference, while reconstruction projects mandated massive demobilization of the army and prudent defensive strategy during a period of weakness.



Khrushchev Era  
(1954-64)

The Khrushchev era witnessed rapid and radical changes from the status quo achieved during the last years of Stalin. These changes

were significant ones in Soviet military doctrine, freed from the straitjacket of postwar Stalinism. The dominant motif of the period was a recognition of the revolution in military affairs wrought by the advent of nuclear weapons and missile technology. Especially during the 1953-58 period, there was a major debate within the party and military leadership over the images of a future major war. According to Major General S. Kozlov, there was an "agonizing reappraisal of previous experience and, mainly, an adaptation of new weapons and means of conflict to old views and concepts."<sup>19</sup>

The very conception of war changed. Both Georgii Malenkov (1954) and Nikita Khrushchev (1956) declared that war was no longer inevitable between capitalism and socialism. And war, if it did come, would no longer be a protracted conventional conflict between massed ground forces in Europe. Instead, war would result from the inevitable escalation of a conventional war to nuclear war and would be dominated by a short, intense massive exchange of nuclear weapons delivered by rockets and planes.<sup>20</sup>

The implications of this shift for various forces and tactics were considerable. A definite downgrading and partial demobilization of the ground forces and tactical air forces occurred as the conventional option was derided as obsolete. Airborne, tank, and motorized forces gained prominence at the expense of the infantry. The Strategic Rocket Forces replaced the ground forces as the dominant armed service by the early 1960s. Major General V. G. Reznichenko and Colonel A. Sidorenko clarified the changing nature of warfare during this period when they declared:

There will also be a different way of breaking through the enemy's defense. The method used will no longer be that of "gnawing through" as was the case in past wars. The defense will be dealt nuclear strikes and will then be attacked from the line of march, at high tempo, by tanks and mechanized troops. The use of nuclear weapons will create favorable conditions for the rapid advance of troops. They should be able to

utilize quickly the results of nuclear weapons, penetrate boldly through breaches in the enemy's combat formations, avoid both frontal attack on strong points and straight line movements, carry out flexible maneuvers, and deal decisive blows to the enemy's flank and rear.<sup>21</sup>

Given the powerful destructive qualities of nuclear weapons and new-found predominance of the offense over the defense, the role of surprise was greatly enhanced in the minds of Soviet military men. Marshal Pavel Rotmistrov in 1955 perhaps most directly highlighted the new emphasis on surprise:

Surprise attack, employing atomic and hydrogen weapons and other modern means of conflicts, now takes on new forms and is capable of leading to singularly greater results than in the past war. . . . Surprise attack with the massive employment of new weapons can cause the rapid collapse of a government whose capacity to resist is low as a consequence of radical faults in its social and economic structure and also as a consequence of an unfavorable geographical position.<sup>22</sup>

By 1964, Colonel Lyutov would suggest that the role of surprise "has grown so much" that it has become "one of the most important principles and conditions ensuring the attainment of success in combat."<sup>23</sup>

There was a sharp reduction in the projected duration of the war and significant increase in the importance of the initial period of the war. No longer, as under Stalin, would a future war likely last years nor would the initial indecisive phase cover a period of months.<sup>24</sup> With both sides striving to seize the initiative at the beginning, the first period of the war would be not only important but very short, certainly less than a month.<sup>25</sup>

Overall, then, the Khrushchev era saw a marked shift in attitudes toward a major war under the impact of the atomic revolution in military affairs. Any significant conflict carried serious possibilities of escalating into a world war, which would surely be a war dominated by nuclear weapons. In the process, Stalin's five permanent operating factors of warfare and traditionalist vision of refighting

World War II were replaced by a new, modern vision of nuclear warfare.

### *influences*

During this period, international factors were very influential. The Khrushchev era was a period of U.S. strategic nuclear superiority. Combined with a strong American theater nuclear force projection in Europe, this imbalance in strategic nuclear capability canceled Soviet conventional superiority on the ground. Too, in a political environment of high tension and cold war (focused on Cuba and Berlin, in particular), the American threat had to be taken seriously. Soviet nuclear strategy gave the armed forces a credible war-fighting strategy via preemption. And foreign military doctrine and experiences suggested particular tactics in the nuclear sphere. The Soviet policy of preemption, blitzkrieg offensive strike, high-speed maneuver force, and strong firepower was not unlike a nuclear version of German blitzkrieg tactics. There were also some echoes of Western "massive retaliation" theory.

Domestic trends also were significant factors affecting military doctrine. Khrushchevian populist reformism, coupled with advances in technology, emphasized modernity and international competition with the advanced United States, deemphasized "obsolete" ground forces, and stressed "modern" areas of accomplishment—especially rockets and nuclear weapons. Stress on consumerism, coupled with war-induced demographic difficulties, favored decreases in conventional ground force size and role, with increased emphasis on cheaper nuclear capabilities.

A number of factors had less impact than in the past. Marxist-Leninist ideology was altered as Khrushchev denied the inevitability of war and conceded massive devastation from nuclear war. Much Stalinist military thinking was attacked explicitly and derided as obsolete in this period. While World War II experiences remained important and the sources of the



1941-42 failures were analyzed. World War II took a back seat to the "revolution in military affairs." And Russia's traditional "defensive mentality" was under attack as Khrushchev claimed socialism was now in the ascendancy.



Brezhnev Era  
(1964-82)

The Brezhnev era saw some changes in Soviet military thinking on a future major war, but these changes were far less dramatic than the radical shift from the Stalin period to the Khrushchev period. The clear consensus of the Khrushchev era that a major war, given the massive nuclear stockpiles and large number of missiles on both sides, would ultimately involve a large-scale exchange of nuclear weapons as a key part of the war continued under Brezhnev's rule.<sup>26</sup>

What changed during the Brezhnev era was the emergence of a new appreciation of the possible use of conventional weaponry in a major war. Now a possible conventional phase was postulated at the beginning of the war. Too, Soviet military thinking came to anticipate that there would be a significant conventional phase at the end of the war. The discussions of these conventional, nonnuclear phases led to the publication of such articles as that written by Colonel B. Samorukov in 1967, titled "Combat Operations Involving Conventional Means of Destruction."<sup>27</sup>

Perhaps the most discussed concept during the era was that of a possible conventional phase at the beginning of a war. Although a modern war would "undoubtedly" be a nu-

clear war, it would probably begin with a short conventional phase. This opening, conventional phase might be somewhat longer if "a certain balance of forces" existed.<sup>28</sup>

The probability of such a phase was discussed by many Soviet authors. While Marshal N. Krylov felt that "the variant is not excluded," Colonel General M. Povaliy found it "completely possible"; and Lieutenant General M. Kiryan thought that "a future war may be unleashed either by conventional or by nuclear weapons; having begun with conventional weapons, at a set stage it may grow into a nuclear war."<sup>29</sup>

Given the omnipresent danger that the enemy would initiate a nuclear strike, the conventional phase of operations would have some very specific characteristics. Time would be of the essence in destroying the enemy's advance defense lines, eliminating the maximum number of enemy tactical means of nuclear attack, and seizing critical targets that would disrupt the defensive position of the enemy.<sup>30</sup>

The duration of such a conventional phase was uncertain, depending on the concrete conditions existing at the time of the war. As *Marxism-Leninism on War and Army (A Soviet View)* declared, "The war may start as a conventional one and may only gradually grow into a nuclear one."<sup>31</sup> The possibility of a fairly long conventional phase, while deemed unlikely, was not ignored. Thus, Major General V. Zemskov theorized in 1969:

In time a conventional war can be of long duration. This is understandable if one considers that the difficulty of a constant and powerful armed effort against the deep regions permits the retention of large resources of manpower and material and restoration of the losses of the armed forces in manpower and equipment. As a result, more and more forces can be deployed in the theaters of military operations. This will make it possible to continue military operations for a more or less lengthy time.<sup>32</sup>

Similarly, there was in this period enhanced recognition of a conventional phase and conventional role in ending a nuclear war. Colonel

General N. A. Lomov wrote in 1973:

According to universal recognition, a nuclear war can be a quick one. But there is also the viewpoint that after the exchange of massed nuclear strikes and exhaustion of nuclear stockpiles, a war will not end but enter a new stage and can be continued with conventional weapons.<sup>33</sup>

Under these conditions, then, a key role is necessarily reserved for the ground forces.

In addition to these views on conventional war, some moderate changes were observable in the Soviet view of the role of surprise in a future war. On one hand, there was continued emphasis, as in the Khrushchev era, on the importance of surprise in an era of large stockpiles of nuclear weapons and ICBMs and IRBMs. A surprise attack by the enemy continued to be viewed as the most likely and dangerous scenario for the start of a world war. But surprise could not be decisive in an era in which the Soviet Union had amassed an enormous stockpile of nuclear weapons and missiles.<sup>34</sup>

Given these Soviet perceptions of a future war, it is hardly surprising that Soviet authors insisted on the primacy of the offensive over the defensive posture. Indeed, the defense was seen as having only limited utility, unlike in World War II where it was widely used on a strategic level. Major General N. Sushko observed in 1966:

Soviet military doctrine has always considered the offensive the main means for completely crushing of the enemy and for attaining victory. . . . In nuclear war the role of active offensive operations increases even more. The sphere in which defense is used grows smaller. Clearly defense must be resorted to only in extreme situations and then only on a tactical or limited operational scale.<sup>35</sup>

The actual length of the projected war was seen in a broad range of time. A largely nuclear war might be concluded in the short period of time as the use of Strategic Rocket Forces permitted the achievement of key strategic goals very quickly. On the other hand, a conven-

tional phase to the war, especially at the end, could greatly lengthen the war.<sup>36</sup>

#### *influences*

The external international influences during this time were strong and varied. The international military environment provided a critical context for Soviet thinking. The achievement of strategic and theater nuclear parity with the United States represented a major Soviet accomplishment with significant impact on doctrine. For the first time, the Soviet Union possessed a credible offensive nuclear capability with the ability to deter nuclear escalation at each step on the ladder. This capability gave conventional forces new opportunities and called into question any American use of nuclear weapons in Europe.

The international political environment also had significant impact on Soviet thinking. During this period, the Soviet Union had markedly improved its position in international politics. The decline in international tensions and the diversion of American attention to Vietnam lessened the danger of external nuclear attack.

Changes in Western military doctrines had an impact on Soviet thinking. Beginning in 1961, the United States had started to move away from massive retaliation toward flexible response. Inevitably, the Western move away from exclusive and mass use of nuclear weapons to selective use of nuclear weapons would have a significant impact on Soviet thinking. It would reinforce the Soviet awareness of, and interest in, a conventional option.

Domestic factors also had a significant effect on Soviet thinking. The economic constraints under which the system functioned were especially important. This period was one of expansive economic growth for the Soviets. The demographic difficulties of the early 1960s vanished, and vast Siberian energy resources were coming on line. Significant growth rates made a guns and butter economy possible. This economic situation permitted a significant expan-



sion of both nuclear and conventional forces.

The changes in the nature of the Soviet political system were even more important. The Khrushchev era saw massive and, at times, erratic reforms in all areas of politics, including reforms often injurious to key actors in the political system. The Brezhnev ascendancy in October 1964 marked a significant departure from Khrushchev's "harebrained" scheming. Now the emphasis was on a conservative, pluralist, bureaucratic decision-making process in which all bureaucratic actors benefited. In particular, all major bureaucratic actors, including the military, secret police, heavy industry, and light industry, eventually received representation on the Politburo and significant real appropriations increases yearly. In this context, a conventional option would enhance the role of the ground forces and once again make them a more integral and legitimate actor in the decision-making process.

Several other factors were of lesser importance. Russian historical experience was relevant in that Russia had suffered two devastating German invasions in this century. This experience seemed to mandate a continuing need for a large conventional force—and thereby a conventional option in a major war. The current doctrine represented a modification of previous Khrushchevian doctrine rather than a rejection of it. The elements of continuity with the past exceeded the differences. In the absence of any significant military activity, military training and experience of relevance were confined to Warsaw Pact exercises such as "Okean" and "Dnieper." The impact of Marxism-Leninism was relatively limited.

Thus, a series of factors played a role in creating a change in Soviet thinking.

### 1982+: Possible New Trends

In more recent times, a possible new trend in Soviet thinking is the emphasis on the inevitable and necessary use of nuclear weapons to ensure the success of Soviet forces engaged in

theater warfare. Soviet military experts seem to recognize that defensive capabilities have achieved such levels that purely conventional means may be inadequate to achieve victory. Soviet Chief of Staff Nikolai Ogarkov stated in 1982:

At the present time, as is known, there is rapid development of diversified means of combatting tanks, including airborne (antitank) weapons. Moreover [these weapons] have already achieved such qualitative and quantitative levels that this urgently demands attentive study of tendencies and consequences of their development. It is dangerous to ignore this tendency.<sup>37</sup>

Perhaps this line of thought explains why several recent Soviet statements in military publications have ignored any mention of a conventional option and have stressed the inevitable and massive use of nuclear weapons at the theater level as necessary for victory.<sup>38</sup> *Krasnaya Zvezda* had an editorial comment in March 1983 on this subject:

Artful maneuver, conducted at a high tempo with diverse formations of order of battle, and with maximal exploitation of the results of employment of nuclear weapons at all states of combat operations, has become the determinant of success.<sup>39</sup>

### *influences*

A number of factors can be seen as pushing the Soviet Union in the direction of a new stress on the use of nuclear weapons. The Reagan military buildup threatens hard-earned Soviet strategic parity with the United States and could give the United States a strong first-strike capability against Soviet land-based ICBMs by 1990. Deployment of Pershing II poses a similar if lesser threat in Europe. As in the 1950s, the best Soviet defense against an emerging American threat is deterrence through assertion that escalation to, or preemption by, nuclear weapons in Europe is inevitable. The Reagan buildup and tough rhetoric have led Soviet leaders to see a considerably higher threat from the United States than during the

Carter years. "Capitalist militancy" calls for firm, credible doctrine to instill more realism in unregenerate American hawks.

Domestic influences are also in play. Anticipated low economic growth, minimal labor force growth, and energy problems would suggest a move away from large, massed, labor-intensive conventional armies and toward cheaper nuclear forces. Significant technological improvements in American strategic forces and conventional defense would argue for a move from less effective Soviet conventional options and toward more deterring nuclear options. In some ways, this new doctrine echoes the earlier doctrine of the Khrushchev era. And succession crises tend to lead to increased external influence and fear of the West.

Some factors have had minimal effects. Western conventional options and selective nuclear options are derided by possibly emerging Soviet doctrine. The influence of ideology is minimal at best. And recent Soviet military experiences in Afghanistan seem of little relevance.

LIKE the system from which it sprang, the Soviet view of future war has undergone major

changes over time. Under Stalin, the Soviet Union visualized the next war as basically a rerun of World War II with protracted land campaigns in which ground forces and conventional weapons predominated. In many ways, this view reflected the immobilism of Soviet politics in the last years of an aging leader. Under Khrushchev, as in many other areas, a radical change occurred, with the new war conceptualized as a largely nuclear war in which the Strategic Rocket Forces predominated. Under the more conservative Brezhnev, a broader concept of war visualized a possible conventional phase either at the beginning or near the end of the war. This view, too, reflected the broad bureaucratic pluralism characteristic of the Brezhnev era. And, in the last two years, there have been tentative indications of a renewed emphasis on the nuclear character of a future war. Overall, then, it appears that Soviet military doctrine has undergone significant changes in its view of a major war in response to a variety of internal and external pressures.

University of Denver

#### Notes

1. Fritz Ermarth, "Contrasts in American and Soviet Strategic Thought," in *Soviet Military Thinking* edited by Derek Leebaert (London: Allen and Unwin, 1981), p. 51.
2. Cited in Benjamin Lambeth, *How to Think about Soviet Military Doctrine*, p. 5939 (Santa Monica, California: Rand, 1978), p. 4.
3. Raymond Garthoff, *Soviet Strategy in the Nuclear Age* (New York: Praeger, 1962), p. xi.
4. Roman Kolkowicz, "U.S. and Soviet Approaches to Military Strategy: Theory vs. Experience," *Orbis*, Summer 1981, p. 319.
5. Major General S. Kozlov, *Officer's Handbook*, translated by U.S. Air Force, 1971, p. 116.
6. B. Byely et al., *Marxism-Leninism on War and Army (A Soviet View)* (Washington: Government Printing Office, 1974), p. 17.
7. Michael McGwire, "Soviet Military Doctrine: Contingency Planning and the Reality of World War," *Survival*, May/June 1980, pp. 107, 112.
8. Benjamin Lambeth, "The Sources of Soviet Military Doctrine," in *Comparative Defense Policy*, edited by Frank Horton, Anthony Rogerson, and Edward Warner (Baltimore: Johns Hopkins University Press, 1974), p. 203.
9. William Schneider, Jr., "Soviet General-Purpose Forces," *Orbis*, Spring 1977, p. 96.
10. John Erickson, "The Soviet Military System: Doctrine, Tech-

nology and 'Style,' " in *Soviet Military Power and Performance*, edited by John Erickson and E. J. Feuchtwanger (London: Macmillan, 1979), p. 35.

11. Albert Weeks, "The Garthoff-Pipes Debate on Soviet Doctrine: Another Perspective," *Strategic Review*, Winter 1983, p. 58.

12. Lambeth, "The Sources of Soviet Military Doctrine," p. 213.

13. This view of the next major war was confirmed by Major General S. Kozlov in 1964, when he wrote: "In the first post-war period the development of Soviet military theory predominantly proceeded along the traditional path of generalization and analysis of the experience of the past war, of working out on this basis conclusions and recommendations for the conduct of armored conflicts by conventional means. This period may be considered as 1946-1953." See Major General S. Kozlov, "The Development of Soviet Military Science after World War II," *Poennaya Mysl'*, February 1964, p. 29.

14. Major General M. I. Cherdnichenko, "On Features in the Development of Military Art in the Post War Period," *Poennostoricheskii Zhurnal*, No. 6, 1970, p. 111.

15. I. Stalin, *O velikoi otechestvennoi voine Sovetskogo Soyuz* (Moscow: Politizdat, 1950), pp. 43-44.

16. Marshal V. D. Sokolovskii wrote about Stalin in his classic work, *Soviet Military Strategy*: "He erected into general principles the theory of active defense . . . and the allegation that counterattack



is the inevitable form of strategic operation in wartime." See Marshal V. D. Sokolovskii, editor, *Soviet Military Strategy*, translated by Herbert Dinerstein, Leon Gouré, and Thomas Wolfe (Englewood Cliffs, New Jersey: Prentice-Hall, 1963), p. 83.

17. Major General S. Kozlov, depicting these years, stated: "Any further development of military theory depended on his pronouncement—direct or implied. If there was no opinion from this authority on a certain problem of military theory, either working it out was not undertaking at all, or, at best, there was an attempt to fit the problem under one of his remarks, even if it were far removed from the subject or made with regard to a completely different matter." See Kozlov, p. 31.

18. "Stalin . . . launched major programs to develop the atomic bomb and other modern weapons, but he did not permit any thoughts to be given to their effect on the conduct of war. Weapons development and military doctrine existed in separate worlds: the former was pushed at a rapid pace, the latter was stifled." David Holloway, *The Soviet Union and the Arms Race* (New Haven: Yale University Press, 1983), p. 83.

19. Kozlov, p. 29.

20. Marshal V. D. Sokolovskii has asserted: "Armed combat in ground theaters will also be different. Missile attacks will be primary means of defeating opponent's ground forces, of destroying his missiles, planes and nuclear weapons. All of this will lead to numerous, completely destroyed, devastated and radioactively contaminated zones." See Sokolovskii, pp. 299, 306.

21. Major General V. G. Reznichenko and Colonel A. Sidorenko, "Soviet Tactics on the Nuclear Battlefield," *Voennaya Mysl'*, June 1965, pp. 78-79.

22. General Pavel Rotmistrov, "On the Role of Surprise in Contemporary War," *Voennaya Mysl'*, February 1955, p. 150.

23. Colonel Lyutov, "Comment" in *Voennaya Mysl'*, October 1964, p. 37.

24. Marshal Rodion Malinovsky declared in 1961 that during the very early stages of war, the "first massive nuclear blows can to an enormous extent determine the entire subsequent course of war and result in losses in the homeland and among troops which could place the people and country in a difficult situation." See Lawrence Freedman, *The Evolution of Nuclear Strategy* (London: Macmillan, 1981), p. 266.

25. Marshal Biryuzov commented in 1964 that the initial period of a future war "will evidently be much shorter than in past wars. Of course it would be difficult to determine its duration exactly. However, it can be said with complete certainty that it will not be counted in months, but probably in several days or at least weeks." See S. S. Biryuzov, "The Lessons of the Beginning Period of the Great Patriotic War," *Voennaya Mysl'*, No. 8, 1964, p. 26.

26. Colonel M. Povaliy in 1967 wrote regarding a major war: "All present-day powerful and long-range means of struggle, including strategic nuclear forces, will be used in the war on a huge scale and the most decisive means of military operations will be employed. According to technical means of armed struggle, this will be a nuclear-rocket war in which the chief weapon of the destruction of the enemy's military economic potential and of the enemy's armed forces will be a nuclear weapon and the basic means of delivering it to the target will be rockets of various designation. The broad use of means of mass destruction lends an unprecedented destructive nature to war." See Colonel General M. Povaliy, "Development of Soviet Military Strategy," *Voennaya Mysl'*, February 1967, p. 70.

27. Colonel B. Samorukov, "Combat Operations Involving Conventional Means of Destruction," *Voennaya Mysl'*, August 1967.

28. Major General S. Shtik analyzed this variant in 1968: "Modern world war, if launched by the imperialists, will undoubtedly be a nuclear war. However a situation may arise in which combat operations begin and are carried out for some time (most probably for a relatively short duration) without the use of nuclear weapons; then there is not excluded a certain balance of forces, in which

combat operations with only the use of conventional weapons can extend over a longer period of time." See Major General S. Shtik, "The Encirclement and Destruction of the Enemy during Combat Operations Not Involving the Use of Nuclear Combat Operations," *Voennaya Mysl'*, January 1968, p. 53.

29. See Marshal N. Krylov, "The Nuclear Missile Shield of the Soviet State," *Voennaya Mysl'*, November 1967, p. 17; Colonel General M. Povaliy, "Development of Soviet Military Strategy," *Voennaya Mysl'*, February 1967, p. 70; and Lieutenant General M. M. Kiryan, editor, *Voenna-tekhnikhesku progress i vooruzhenneye sily SSSR* (Moscow: Voenizdat, 1982), p. 312.

30. Colonel B. Samorukov best analyzed the likely operations during a conventional phase when he observed: "Both sides will evidently concentrate the main attention on destroying as large as possible a number of nuclear means of the enemy and thereby disrupting or weakening to the maximum extent the nuclear strike being prepared by him . . . Both sides will also take every measure to inflict, before the beginning of the use of nuclear weapons, destruction on the most important groupings of the first operational echelon of the enemy, to succeed in overcoming difficult natural obstacles as well as zones and lines of obstacles, especially of high explosives, and to seize objectives which are advantageous for offensive operations with the use of nuclear weapons." See Colonel B. Samorukov, "Combat Operations Involving Conventional Means of Destruction," *Voennaya Mysl'*, August 1967, p. 30.

31. *Marxism-Leninism on War and Army (A Soviet View)*, translated by U.S. Air Force, 1973, p. 233.

32. Major General V. Zemskov, "Characteristic Features of Modern Wars and Possible Methods of Conducting Them," *Voennaya Mysl'*, July 1969, p. 19.

33. Colonel General N. A. Lomov, *Scientific-Technical Progress and the Revolution in Military Affairs*, translated by U.S. Air Force, 1974, p. 73.

34. Marshal N. Krylov best expressed this point of view when he wrote: "Thus in modern conditions, with the presence of a system for detecting missile launchers, an attempt by the aggressor to inflict a sudden preemptory strike cannot give him a decisive advantage for the achievement of victory in war and in any case will not save him from great destruction and human losses. Moreover, in a number of cases, the aggressor will have to pay with even a greater amount of destruction and victims." See Marshal N. Krylov, "The Nuclear Missile Shield of the Soviet State," *Voennaya Mysl'*, November 1967, p. 17.

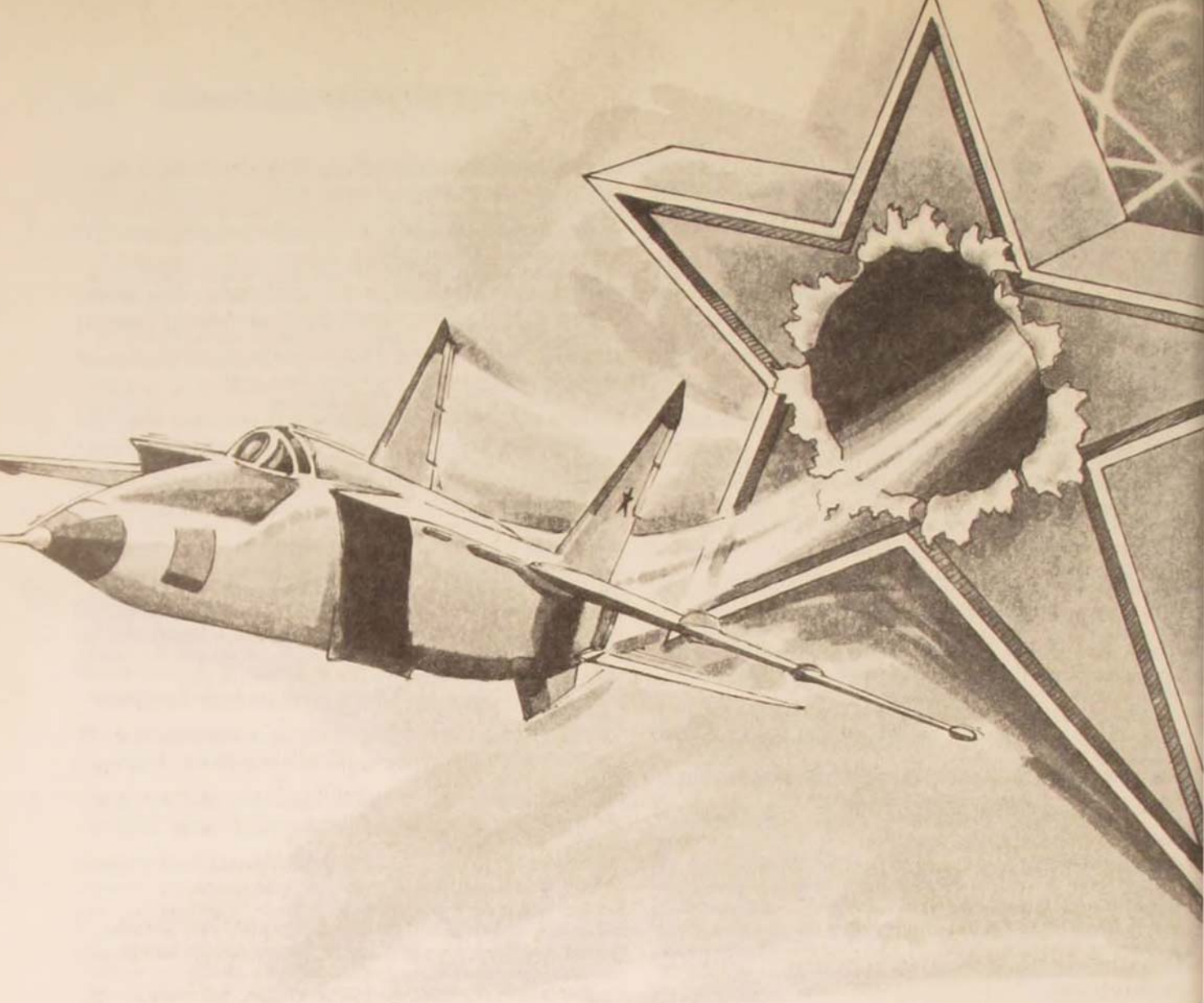
35. Major General N. Ya. Sushko et al., *Methodological Problems of Military Theory and Practice*, translated by U.S. Air Force, 1968, p. 74.

36. Major General N. Sushko captured the Soviet view when he wrote in 1966: "Considering the fact that nuclear missile weapons possess enormous power and that in days or even hours entire countries can be wiped from the face of the earth, our doctrine considers nuclear war as fast moving. At the same time it conceives of the possibility that under certain conditions the war might acquire a drawn-out nature." See *ibid.*, p. 73.

37. Chief of Staff, N. Ogarkov, "Always Ready to Defend the Homeland," *Kommunist*, February 1982.

38. These statements have stressed that "in order to break through enemy defenses it is necessary to first overwhelm the enemy with nuclear strikes, aviation, and artillery fire and to complete annihilation with a steadfast attack by tanks and motorized, infantry units. . . . Preemption was always crucially important, but nowadays minutes and seconds can determine the fate of battle. A small delay in destruction of a nuclear-capable missile or artillery battery [can cause] the entire intelligent purposeful combat decision to become an empty venture. Moreover, delay will cost massive losses of personnel, weapons and equipment." See *Voennyi Vestnik*, editorial comment, January 1982.

39. *Krasnaya Zvezda*, editorial, 5 March 1983.



## SOVIET AIR AND ANTI-AIR OPERATIONS

PHILLIP A. PETERSEN  
MAJOR JOHN R. CLARK

**S**INCE the ouster of Khrushchev in October 1964, the Soviets have accepted the possibility of a conventional war in central Europe.<sup>1</sup> Before this change, which resulted from the October 1964 Plenum of the Central Committee of the Communist Party of the Soviet Union, the Soviets planned to shift the correlation of military forces dramatically in their favor by means of a nuclear attack against NATO's air and nuclear forces should

war occur. Having overcome "certain incorrect views within military-scientific circles connected with the overevaluation of the potential of the atomic weapon, its influence on the character of war and on the further development of the Armed Forces,"<sup>2</sup> the Soviets realized that in a conventional war they would face the possibility that NATO air power might survive and neutralize the Soviet superiority in conventional ground forces. Further compli-



cating the Soviet problem was the enemy's potential for escalation to nuclear warfare at some point in a conflict. Thus, any plan for conventional warfare had to include the destruction of enough of NATO's nuclear assets to discourage the West from escalating to nuclear warfare should a deteriorating military situation so warrant.

An analysis of Warsaw Pact professional military literature indicates that a conventional war would begin with a Warsaw Pact strike deep into Western Europe to cripple NATO air and nuclear assets. Unfortunately, Western efforts to understand how the Soviets might conduct such an operation have been hindered by an inadequate understanding of key Soviet air power concepts. Such terms as *air operation*, *independent air operation*, *air defense operation*, and *air offensive* are often used interchangeably and incorrectly, frequently with little appreciation that each has a very precise meaning in the Soviet military lexicon. The misuse of such terms contributes to confusion among those struggling to comprehend the Soviet military thought processes.

Some intelligence analysts have stumbled over the term *protivovozdushnaya operatsiya*, particularly when it was translated as *air defense operation*. American analysts were clearly confused by the differences between their own and Soviet military cultures. The American interpretation of air defense did not adequately reflect the very offensive nature of the Soviet plan—which would probably be translated more accurately as anti-air operation. It is also important to understand that for the Soviet military an air operation involves much more than just aviation, an independent air operation is not the same as an air operation, and an air offensive is a *front*-level activity rather than a theater-level activity. These terms are crucial to understanding Soviet military art, and once grasped conceptually, they will lead to a more complete understanding of how the Soviets would probably wage a conventional war in Europe.

Definitional problems, particularly when two very different languages are involved, should not be surprising. People generally tend to make judgments in terms of their own cultural biases or frames of reference, thereby imposing their concepts and views on what they are attempting to understand. Fortunately, in preparing this article, we have been allowed to use a number of Warsaw Pact documents that may help resolve the semantic difficulties associated with understanding Soviet air power thinking. Referring to this literature, we shall review the Soviet's own assessment of their historical experience with aviation in support of strategic nonnuclear operations, examine contemporary Soviet concepts of operational-strategic-scale air and anti-air operations, and discuss Soviet perceptions of the probability for success in such undertakings. Although air and air defense activities are interrelated, readers should note that they are distinct operational components of a Soviet combined-arms operation at the strategic level and therefore will be presented here as the Soviets view them, i.e., independently. Readers may find that a chart on terminology associated with Soviet operational concepts (Figure 1), a graph depicting the distances that these terms represent (Figure 2), and a glossary of key Soviet terms may clarify many of these aspects.

### Historical Employment of Soviet Air Forces in Strategic Operations

When the Soviets accepted the possibility of a conventional local war, especially in central Europe, they were faced with the awesome task of finding an adequate substitute for the initial mass nuclear strike. If a Soviet strategic offensive operation would not commence with a massive nuclear strike, NATO's aviation would be available for combat actions that could possibly neutralize the Soviet superiority in conventional ground forces. A high probability of NATO nuclear escalation would also exist.

Figure 1. Terminology associated with Soviet operational concepts

		Applied to Soviet Warsaw Pact				Applied to Opposing Forces (NATO)		
Organizational Level	Descriptive Words	Combat Activity	Organizational Flexibility	Organizational Level	Type of Objective	Depth* of Objectives (approximate)		
Operational Art	front	operational- strategic	no fixed organizational structure—tailored for the operation mission	army	NATO corps or army reserves, C <sup>3</sup> centers logistics/transportation systems weapons and weapons support systems that are located in the enemy "operational depth" and/or threaten the Soviet "operational depth"	operational NATO divisional rear boundary to approx 1000 km	operational strategic objectives of strategic significance beyond (and possibly within) NATO corps rear boundary	
				army (corps)	army group	corps	terrain that is critical to the accomplishment of the Soviet front/army mission	immediate operational to the NATO corps rear boundary
Tactics	division and below	tactical	fixed TOE structure—flexibility in reinforcement	division	reserves, C <sup>3</sup> centers logistics/transportation systems of NATO divisions and their subordinate units weapons and weapons support systems that are located in the enemy tactical depth and threaten the Soviet tactical depth terrain critical to the accomplishment of the Soviet division's mission	to the enemy division's rear boundary		

\*The nature of an objective rather than its depth is the overriding determinant of how it is classified by Soviet planners



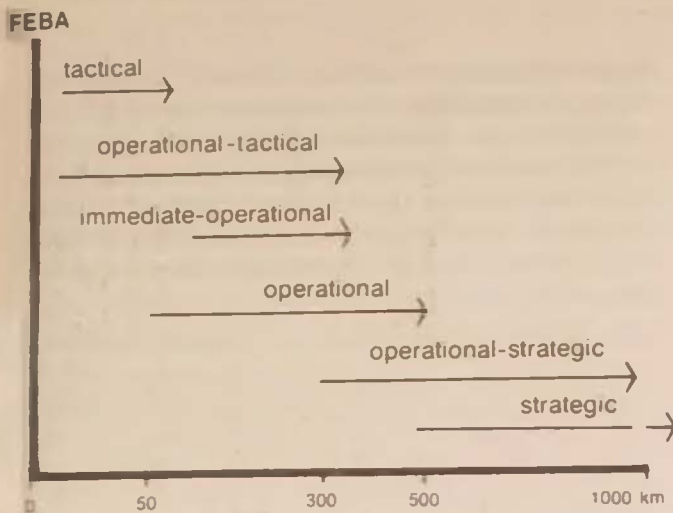


Figure 2. Distances represented by Soviet operational concepts

Thus, in addition to neutralizing NATO's aviation, the conventional fire plan for a strategic operation would have to destroy sufficient nuclear assets to dissuade NATO from escalating to nuclear use. To achieve this end, the Soviets looked to their historical experience with the operational-strategic employment of their air forces.

Not surprisingly, the Soviets based their analysis of the potential of air power on their experience in World War II. An article by Colonel Yu. Bryukhanov in the June 1969 issue of *Soviet Voyennaya mysl'* provides insight into the early, internal Soviet military-theoretical discussions.<sup>3</sup> Colonel Bryukhanov argued that military operations employing only conventional weapons increased the requirement for the massed employment of aviation.

If the ground forces launch the main attack primarily against the weak spot in the enemy's operational formation, air power must be brought to bear not only against the enemy force in that area but also against enemy nuclear-capable aircraft and nuclear missiles. Neutralization of such aircraft and missiles will constitute the major task, requiring a large number of aircraft. Therefore, only limited air power can be assigned to support ground operations. The requisite degree of massed air power employed in the area of the main ground thrust is achieved primarily by re-

ducing the width and depth of combat operations. This in turn conditions the character of the process of overwhelming the opposing ground force, based on sequential thrusts aimed at deep penetration.<sup>4</sup>

More than six years later in the same journal, Lieutenant General of Aviation N. N. Ostroumov drew attention to "the wealth of experience in employing the Air Force in the strategic operations of the Great Patriotic War" and noted that "many points of the art of warfare formulated before and during the war are of current significance under present-day conditions and must be taken into consideration in the further development of military theory."<sup>5</sup> This assessment by Ostroumov of the operational-strategic employment of the Soviet Air Forces in the Second World War indicates

... that principal air force efforts in a strategic operation were concentrated primarily on performing the following basic missions: (1) air supremacy; (2) close air support of ground troops in *front* and army operations; and (3) independent actions against operational reserves, lines of communication, and other important targets in the enemy's rear areas.<sup>6</sup>

According to Ostroumov, the effort to gain air supremacy would take two forms:

the (1) air operation and (2) local combat actions as an inseparable component of *front* operations. The former was employed on the scale of an entire strategic operation throughout the entire area covered by the operation and was conducted on the basis of the decision and plan of Headquarters, Supreme High Command with the participation of long-range bombers and *front*-controlled aviation, as a rule prior to the beginning of the strategic operation. The second form was employed by the *front* command within the framework and according to the plans of *front* operations, employing *front*-controlled aviation forces. In the former case, preference was given to such a method of operational employment of air forces as massive attacks on enemy aircraft on the ground, while in the latter, aerial engagements and battles constituted the principal method.<sup>7</sup>

Ostroumov also found that combat experience in the strategic operations of the Great

**Air offensive:** A smaller-scale equivalent of the air operation conducted at the *front* level.

**Air operation:** A component of a strategic operation under conditions of initiation and conduct of war without nuclear weapons. This is a joint operation directed at the objective of attaining conventional and nuclear fire superiority within a theater of military action (TMA). It is accomplished by destroying or weakening the enemy air forces and nuclear missile forces within the TMA.

**Antiair operation:** A component of a strategic operation intended to unify air defense assets in any given theater of military action, with the objective of defending friendly forces and contributing to the achievement of air superiority. If the Soviets do not hold the initiative in the air, it may be employed to gain the initiative through combined offensive and defensive actions of *frontal* aviation, the National Air Defense Forces, missile troops and artillery, and the antiaircraft defense elements of other branches of the armed forces.

**Front:** An operational and administrative unit usually composed of three to five maneuver armies and one or two air armies. Forces organic or attached to a *front* could include artillery, missiles, air defense, engineer, chemical, signal, intelligence, and rear service units, plus airborne, airmobile, and special-purpose forces.

**High Command:** One of the forms of intermediate strategic leadership. It is a formal command, with staff structure, established between the Supreme High Command and operational-strategic or operational formations (*fronts*, fleets, independent armies, and flotillas) to coordinate strategic operations in either strategic directions or theaters of military action.

**Independent air operation:** An operation employing only assets of the Soviet Air Forces, as opposed to a joint or multiservice air operation. As a smaller-scale operation, it would probably only occur subsequent to the air operation in the course of a relatively protracted conflict.

**Operational direction:** A zone of terrain, water, or airspace, and sometimes a combination of these, within which an operational-strategic or operational formation (a *front*, fleet, independent army, or flotilla) conducts its operations.

**Radioelectronic Combat (REC):** Term used by Western analysts to describe the Soviet concept of *radioelektronnaya bor'ba*. This is a major principle underlying Soviet war planning for the disruption of the enemy's command, control, and communications systems. Disruption is achieved through employing both physical destruction and jamming assets against enemy electronic control systems. REC most closely approximates the Western concept of command,

Patriotic War indicated that the following were required to gain air supremacy:

- Vigorous actions aimed at seizing the initiative and mounting continuous attacks on the enemy's most important air forces; of the greatest importance was an initial surprise, i.e., massive attack by air armies with simultaneous conduct of aerial engagements and air battles.
- Establishment of local air superiority on the main axes of advance of the *fronts*.
- Destruction of enemy aircraft through the joint effort of the air force, air defense forces, and ground and naval forces.
- Continuous monitoring of the condition and basing of enemy aircraft and the location of the enemy's antiaircraft defenses.
- Strikes conducted simultaneously in the

sector of several *fronts* against airfields according to a unified plan. This coordinated assault would involve the prior execution of measures to neutralize enemy antiaircraft defenses and to seal off and mine enemy airfields in order to prevent aircraft from taking off.

- Massive employment of forces in an attempt to gain air supremacy.<sup>8</sup>

Ostroumov concluded that in World War II the development of well-coordinated massive air actions on the main axes of ground advance became an extremely important operational mission of the Soviet Air Forces. These massive actions consisted of air preparation (involving preliminary and immediate air bombardment) conducted as part of the *front* plan and close support of advancing troops to the entire depth



## Military Terms

control, and communications countermeasures.

**Radioelectronic situation:** An estimate of the deployment of the enemy's command and control systems, enemy jamming systems, friendly electronic systems, *front* jamming troops and equipment, and terrain conditions. From this estimate, the Soviets assess the vulnerability and critical elements of the enemy's command and control systems for jamming or destruction, based on the status of their own forces.

**Radioelectronic Warfare (REW):** This is another translation of *radioelektronnaya bor'ba* and is commonly used by Western analysts to denote that subset of REC that deals primarily with jamming of the enemy's control systems. In Western parlance, it most closely translates as electronic warfare.

**Strategic direction:** A wide strip of land or sea and the airspace above it through which the armed forces of one warring party move to gain access to the other's most important administrative-political and industrial-economic centers. Within each strategic direction are one or more operational directions.

**Strategic operation:** An operation that may be defensive or offensive and normally is conducted in a theater of military action (TMA). When conducted in a continental TMA, it would consist of several joint and combined-arms operations performed in accordance with a single concept and in conformity with a Supreme High Command plan for the defeat

of an opponent in the theater. In a continental TMA, the major component operations of a strategic offensive operation could include the following types: air, antiair, *front*, landing (airborne, amphibious, or joint), and naval. The strategic offensive might also include missiles and air-delivered nuclear strikes. Whether or not all or selective combinations of these operations were executed would depend on the actual battlefield environment, particularly on whether or not nuclear weapons were being used. The particular selection and subsequent repetition of the various operations would also be determined by the developing military and political situation.

**Supreme High Command:** The highest body of Soviet military leadership. This organ reports directly to the Defense Council, which is chaired by the Commander in Chief of the Soviet Armed Forces, the General Secretary of the Communist Party of the Soviet Union.

**Theater of military action:** The territory of a continent or a portion of a continent with its surrounding seas, or the water areas of an ocean and its islands and the contiguous coastlines of continents, as well as the airspace above them, within the boundaries of which are deployed strategic groupings of the armed forces and within which strategic operations are conducted. Within each theater of military action, there are one or more strategic directions.

of *front* operations (conducted in support of the plans of the maneuver armies). "During close air support, weapons, centers of resistance, tanks and personnel, tactical reserves, and enemy troop control systems on the battlefield and in the immediate rear would be destroyed and neutralized."<sup>9</sup> The combat actions of the ground troops and aviation were, in some instances, mutually supportive. "When tank armies moved to operational depth, the air armies continued to deliver airstrikes in support of the mobile troops. During the offensive the latter seized enemy airfields and thus assisted in ensuring continuous support and cover of the tank combined units."<sup>10</sup>

Independent air operations were also conducted in support of a strategic operation. Such

operations were aimed at destroying enemy forces and important military installations in the enemy's rear areas. They usually involved the employment of long-range bombers and some *front*-controlled aviation, which for the most part provided cover for the bombers.<sup>11</sup>

### The Air Operation in a Contemporary Strategic Offensive

Although written years ago, an article by Lieutenant Colonel Jan Blumenstein in the August 1975 issue of the Czechoslovak version of *Voyennaya mysl'* remains an excellent summary of what Warsaw Pact military scientists mean when they write about conducting an air operation. Blumenstein noted that "an air op-

eration . . . is a component of a strategic operation which is initiated and fought without nuclear weapons. Its purpose is to destroy or weaken the enemy air forces and nuclear missile forces of an operational and operational-tactical range, to win supremacy in the air and to gain superiority in nuclear forces."<sup>12</sup>

However, Colonel Aleksander Musial, in a March 1982 Polish article, did allow for the conceptual possibility of an air operation, still nonnuclear in character, occurring in the context of a nuclear war. He argued that ". . . depending on the situation and the quantity of aviation still viable, air operations can be conducted after the belligerents have used their basic stocks of nuclear weapons"—i.e., even if an air operation occurred in a nuclear conflict, the operation itself would be nonnuclear.<sup>13</sup> Confusion in the United States on this point may be due, in part, to the way *deistvii aviatsiya* (the activity of aviation) has been confused with *vozdushnaya operatsiya* (air operation).<sup>14</sup> Clearly, aircraft could be employed to deliver nuclear ordnance, but such activity by aviation would be as a part of the execution of nuclear strike plans and not a part of an air operation, which by definition does not involve the use of nuclear weapons.

Colonel Musial described the target set of an air operation more specifically but completely consistent with the earlier works by Ostroumov and Blumenstein. An air operation would involve the following:

- Destruction of aircraft and aircrews on airfields.
- Destruction of enemy aircraft and aircrews in aerial battles.
- Destruction of aircraft carriers at sea and in port.
- Destruction of operational-tactical missiles.
- Disruption of command and control systems and enemy aircraft guidance systems.
- Destruction of nuclear warheads, storage sites, fuel dumps, conventional weapons, and materiel and technical supplies.

- Destroying, blockading, and mining airfields.<sup>15</sup>

As part of a strategic offensive operation, an air operation is a joint operation comprising the aggregate combat activities of strategic aviation in coordination with other branches of aviation, as well as other services of the armed forces on an operational-strategic scale.<sup>16</sup> Colonel Musial explains that, consequently, its component parts include:

- Air operations by air armies of operational-strategic and strategic air forces.
- Combat action of *frontal* and naval aviation to destroy enemy air forces on airfields and in the air.
- Joint action by the units of an air army of the operational-strategic air force and by naval aviation to destroy aircraft carriers.
- Attacks by missile troops using conventional cluster munitions against airfields, anti-aircraft defenses, and enemy command and control systems.
- Joint action of *frontal* fighter aviation, *frontal* anti-aircraft defense, and operational formations of the National Air Defense Forces against enemy air forces in the air.
- Actions by the forces of the *fronts* (1) to neutralize enemy anti-aircraft defense and to protect air force strike groups en route to their objectives and (2) to advance and overrun or threaten major air bases.<sup>17</sup>

Thus, an air operation could include not only aviation strikes but also strikes by artillery and missiles, as well as assaults by airborne, helicopter, and special-purpose troops. Commencing simultaneously with the initiation of *front* offensive operations, an air operation might last several days.<sup>18</sup>

According to the lecture materials used at the Voroshilov General Staff Academy in Moscow during the mid-1970s, "the scale of the air operation is determined generally by the scale of the strategic operation, the disposition of enemy air forces, and the capabilities, force, and means employed for their destruction"—which



would mean that, in the western theater of military action (shown in Figure 3), "the area where missions are accomplished for the destruction of the enemy's air forces can reach 800-1,000 km in width and 1,200 km in depth."<sup>19</sup>

Colonel Musial confirmed in 1982 that "the air operation will be conducted simultaneously on all or several strategic axes over the whole depth of the strategic operation conducted in the theater of military action." However, he also pointed out that "in some cases it

can be conducted within one *front* acting on an independent axis."<sup>20</sup> For example, in the northwestern theater of military action (against Scandinavia) an air operation would be conducted in support of a strategic offensive comprised of a single *front* operating on the only strategic direction with the theater of military action.

An air operation conducted against as sophisticated an air defense system as that of NATO in central Europe would employ pene-

Figure 3. As is suggested by this map, the boundaries of theaters of military action are scenario dependent and may even shift during the course of a conflict.



tration corridors to reduce aircraft losses.<sup>21</sup> Soviet planners envision a typical initial penetration corridor as about 40-50 kilometers wide and 150-200 kilometers deep.<sup>22</sup> With one or two air penetration corridors established over each first-echelon *front*, there might be as many as six corridors created over the inter-German and FRG-Czech borders.

In developing their specific plans for air operations, Soviet planners use a model of the NATO air defense system that resembles a pyramid: surveillance radars at the top, initial and final acquisition radars below, and finally air defense weapon radars at the bottom. The Soviets plan to attack the NATO air defense system from the top down. The air operation phase of the strategic operation would focus electronic countermeasures initially at the air defense radars. Time delays induced at the top would be passed on down through the pyramid. Additional delays would be accomplished by physically attacking key nodes in the air defense structure. Countermeasures introduced at other levels in the pyramid would add to the overall delay. If sufficient degradation can be achieved at the top of the pyramid, there will be fewer requirements for countermeasures at the bottom.<sup>23</sup> This progression offers a considerable advantage for the offense, since the bottom elements are the most difficult to degrade or defeat. Also, in stressing countermeasures against the top of the pyramid, the Soviets place the highest priority in the areas requiring the lowest-order technological solutions.

Prior to and during the initial phase of the air operation, ground-based signal intelligence (SIGINT) collection units along the various *fronts* would be monitoring and locating NATO electronic emissions continually and forwarding these data to filter centers and command headquarters for targeting purposes.<sup>24</sup> Additionally, airborne reconnaissance units would fly SIGINT, photoreconnaissance, and radar-mapping missions along the border area. At this time, concentrated intelligence collection

efforts would be directed at the areas where the air corridors were to be established.<sup>25</sup> Airborne platforms would support these efforts—probably with near real-time data links. Unknown emitters could be assigned to *frontal* aviation reconnaissance platforms or ground-based direction-finding sites for specific collection requirements.

As explained by Blumenstein, an air operation involves two or three massed strikes on the first day of the operation and one or two massed strikes on subsequent days. "The first massed strike is the most massive, and its aim is to cause decisive losses to the air and the nuclear rocket forces of the enemy and to lower his strength and ability to conduct effective retaliatory strikes."<sup>26</sup> Thus, success does not require the total annihilation of the enemy's air and nuclear assets. Instead, its quantitative nature is determined in terms of time and the capability of the enemy to restore the combat capabilities of its forces and to reorganize its ability to counter the actions of friendly forces. "In order to destroy the capabilities of enemy air forces for organized resistance against friendly forces, it is required that up to 60 percent of the aircraft in the theater of action be totally annihilated."<sup>27</sup>

As the first massed strike of the air operation began, Warsaw Pact electronic jamming systems would be used to "blind" enemy air defense radars and associated communications to facilitate the subsequent destruction of enemy air defense systems by missiles and aircraft.<sup>28</sup> Specific targets would be designated for jamming or for destruction, based on the priority or the characteristics of the target. Targets that could not be accurately located because of their mobility (e.g., tactical air communications between aircraft and controller) would be jammed.<sup>29</sup> Other targets, because of their priority, would be assigned both jamming and destruction—examples being the Hawk and other air defense batteries, which would be attacked by massive jamming and firepower simultaneously.<sup>30</sup>

Ground communications jammers subordi-



nate to the *front's* general support communications jamming battalion would be targeted against high-frequency command communications of the army group, corps, surface-to-surface missile units, tactical air control centers, and air defense control centers.<sup>31</sup> These jammers probably would be targeted primarily against American high-frequency (HF) nuclear release nets, such as the "Cemetery Net."<sup>32</sup>

The army's direct-support communications jamming battalion would probably be targeted against tactical communications of the NATO battalion, brigade, division; corps command communications assets; missile units, such as the lance; and artillery units. The direct-support communications jamming battalion has HF, VHF, and UHF (including radio-relay) communications jamming capability.<sup>33</sup> This unit also has its own organic SIGINT resources for identifying and locating jamming targets.

Helicopter jamming units would be used to jam by "periodically disrupting" radio-relay command nets of the brigade, division, and corps. NATO radio-relay communications of tactical aviation and air command forces would also be targeted.<sup>34</sup> Although these directional communications are the hardest to jam because of their highly directional antennas, the Soviets believe that they are vulnerable because relatively low power is required to jam the closest relay points.

Artillery, coupled with operational-tactical and tactical rockets and missiles armed with improved conventional munitions, would initiate the air operation with strikes to suppress time-critical air and air defense activities.<sup>35</sup> It is important to recognize that to the extent that weapons inventories would allow, the Soviets would strike an enemy's air defenses and airfields initially with means other than aircraft. For example, it is now estimated that the SS-21 with a new conventional warhead incorporating submunitions with highly accurate guidance could attack Hawk sites effectively.<sup>36</sup>

Throughout the theater of military action, special-purpose troops (*spetsnaz*) of the Gen-

eral Staff's Chief Intelligence Directorate (GRU) would attempt to neutralize NATO's nuclear delivery systems, nuclear storage facilities, and associated command, control, and communications (C<sup>3</sup>) facilities. GRU *spetsnaz* brigades familiarize their personnel on NATO nuclear sites; Hawk, Pershing, Lance, and Honest John missiles; nuclear-capable artillery; and nuclear-associated airstrips. The Defense Communications Agency's European communications sites, POMCUS (prepositioned overseas material configured in unit sets) sites, and NATO's early warning capability also provide potential targets for GRU *spetsnaz* teams. Although individual acts of sabotage, by themselves, would not be decisive, their cumulative effect could contribute greatly to the success of a Soviet theater offensive. GRU *spetsnaz* teams operating in the western theater of military action would be prepared to destroy nuclear weapons being unloaded in staging areas. Ideally, the Soviet planner would want to destroy NATO's nuclear weapons before they were dispersed to field positions. In subsequent operations to neutralize or destroy NATO's nuclear assets, *spetsnaz* teams would simultaneously engage in combat, using small arms and antitank rocket launchers to destroy command posts, control centers, firing positions, and equipment in order to prevent NATO's launching of nuclear-armed aircraft or missiles. If the team commander deemed it impossible to neutralize or destroy the target directly, its type and location would be reported for destruction by other means.<sup>37</sup> Some of these *spetsnaz* actions would be integrated into the air operation plan and others would occur as part of the various *front* offensive operations.<sup>38</sup>

Like some of the *spetsnaz* actions, some airborne, airmobile, and amphibious assault activity would be integrated directly into the air operation plan. In Soviet thinking, such assaults would represent the selective use of troop strikes (*udary voysk*) in lieu of nuclear strikes (*yadernye udary*) against critical targets.<sup>39</sup> Airborne and airmobile assaults conducted as part

of the air operation would most often focus on objectives such as airfields, nuclear storage facilities, and associated C<sup>3</sup>.<sup>40</sup> In the case of airfields, the Soviets would sometimes try to seize them for their own use rather than destroy them.

Although reinforcement is possible, in the western theater of military action the first massed strike by Soviet aviation probably would number some 1200 aircraft, out of a total of more than 2800 aircraft available. (See Table I.)

*Table I. Aircraft available for the first mass strike in the western theater of military action. Frontal aviation figures are based on fighter aviation regiments of 45 aircraft (ex-PVO regiments at 36), fighter-bomber regiments of 45, tactical bomber regiments of 30, and reconnaissance/electronic countermeasure squadrons of 13. Reserve air army figures are based on fighter regiments of 45 aircraft, tactical bomber regiments of 30, and bomber regiments (including reconnaissance aircraft) of 32.*

<b>Soviet Frontal Aviation</b>		1972
Fighters	963	
Fighter-Bombers	810	
Bombers	30	
Recon/ECM	169	
<b>Legnica Air Army</b>		354
Fighters	135	
Bombers	180	
Recon/ECM	39	
<b>Smolensk Air Army</b>		512
Bombers	392	
Recon/ECM	120	
<b>Total</b>		2838

It is quite unlikely that the Soviets would be willing to compromise surprise or to put *frontal* aviation aircraft at risk by forward-deploying aircraft that cannot be sheltered. If evenly distributed, air penetration corridor use in central Europe could average 200 to 410 aircraft per corridor during the first massed strike without forward deploying additional aircraft.

Nuclear-capable aircraft withheld during the first massed strike of an air operation in the western theater of military action would likely be about 7.5 percent of the available fighter and fighter-bomber aviation and about 30 percent

of the available bombers. Assuming that approximately 20 percent of the bombers would not be available for maintenance and other reasons, the bombers could provide strike squadrons of 7 to 8 aircraft each for the air operation while still withholding an aircraft from each squadron for nuclear missions. Out of its total of 45 combat aircraft, each *frontal* aviation fighter and fighter-bomber regiment has the responsibility of providing 39 aircraft for combat. These regiments could use 36 aircraft in meeting their regimental targeting obligations during the first massed strike, leaving 3 aircraft in each regiment for immediate nuclear response. Soviet fighter and fighter-bomber aviation in the German Democratic Republic, Poland, and Czechoslovakia could provide a 57 aircraft nuclear immediate-response force. Bomber aviation could provide an additional 147 aircraft. Therefore, the air operation could be conducted in the western theater of military action with an aviation nuclear withhold of approximately 200 aircraft. (See Table II.)

With each of the Soviet fighter and fighter-bomber regiments in the forward area providing 36 aircraft on the first massed strike of the air operation, the Soviets could undertake nineteen regimental-size missions (capable of attacking nineteen main operating bases). The non-Soviet Warsaw Pact air assets of the three northern tier states could be reserved for air defense and direct support of their national armies. The potential for their participation in an air operation, of course, will increase as these northern tier states receive greater numbers of Flogger aircraft. Bombers of *frontal* aviation and reserve air armies of the Supreme High Command, working in squadrons of about 7 to 8 aircraft each, could strike forty-seven main operating bases or the equivalent.

Standoff jamming to suppress NATO's air defense radars by An-12/Cub C/D aircraft would probably begin before the first wave of strike aircraft penetrates the forward edge of the battle area (FEBA). This airborne jamming would be in coordination with Soviet ground-



	Total Aircraft	Aircraft Available	Nuclear Withhold	First Mass Strike	Regiment Sortie	Squadron Sortie
<b>Frontal Aviation</b>						
Fighters	405	351	27	324	9	
Fighter-Bombers	315	273	21	252	7	
Bombers	30	24	8	16		2
Recon/ECM	91	78		78		
<b>Legnica Air Army</b>						
Fighters	135	117	9	108	3	
Bombers	180	144	44	100		14
Recon/ECM	39	34		34		
<b>Smolensk Air Army</b>						
Bombers	392	314	95	219		31
Recon/ECM	120	96		96		
<b>Total</b>	<b>1707</b>	<b>1431</b>	<b>204</b>	<b>1227</b>	<b>19</b>	<b>47</b>

Table II. The first mass strike of the air operation in the western theater of military action

based jamming of vulnerable communication nets. The Cubs would primarily jam early warning/ground-control intercept (EW/GCI) radars and would lay chaff corridors. (See Figure 4.) By overlapping chaff corridors to form a blanket, the Soviets could help mask attack formations from early detection. Initially, standoff jamming aircraft would be positioned behind the FEBA, and their jamming would help screen the penetration corridor as aircraft attacked defenses within the corridor. Escort jamming aircraft would be stationed initially near the beginning of the penetration corridor in a standoff jamming role outside the lethal range of air defenses. In addition, each aircraft in an attack element can be equipped with an electronic countermeasures pod if it does not already have internal equipment for self-protection jamming of terminal air defense radars.

Fighter-bomber aircraft would undertake defense suppression missions within the penetration corridor. Primary targets for destruction would be air defenses—surface-to-air missile systems, antiaircraft artillery, and command and control facilities. The tactic for attacking an air defense battery, such as a Hawk site, calls for two flights of four fighter-bombers. Two of these aircraft would be equipped with antiradiation missiles and would penetrate at low

altitude. They would pop up and fire their antiradiation missiles, which would home on the Hawk radar emissions and presumably force the Hawk radar to disengage or be destroyed. The remaining 6 aircraft, in pairs, would then pop up, roll in, and deliver conventional ordnance on single passes from three different headings. The Soviets appear to believe that the destruction of radar stations supporting missile air defense would lead to a breakdown of command posts and fire batteries of Hawk and other air defense units and to the disruption of their automated control support units.<sup>41</sup>

Fighter aircraft, too, would be assigned to the first wave of the mass strike and committed to help clear the corridors. These fighters would be tasked with preventing NATO interceptors from operating in the corridors to substitute for the loss of the destroyed ground-based air defenses. Fighters and fighter-bombers would be directed also against selected airfields, nuclear storage facilities, and key command-and-control points throughout the depth of *frontal* aviation activity (about 300 kilometers). Although Blumenstein stated in 1975 that as many as 50 percent of *frontal* aviation fighter aircraft might conduct ground attack, modernization of Soviet fighter-bombers and bombers

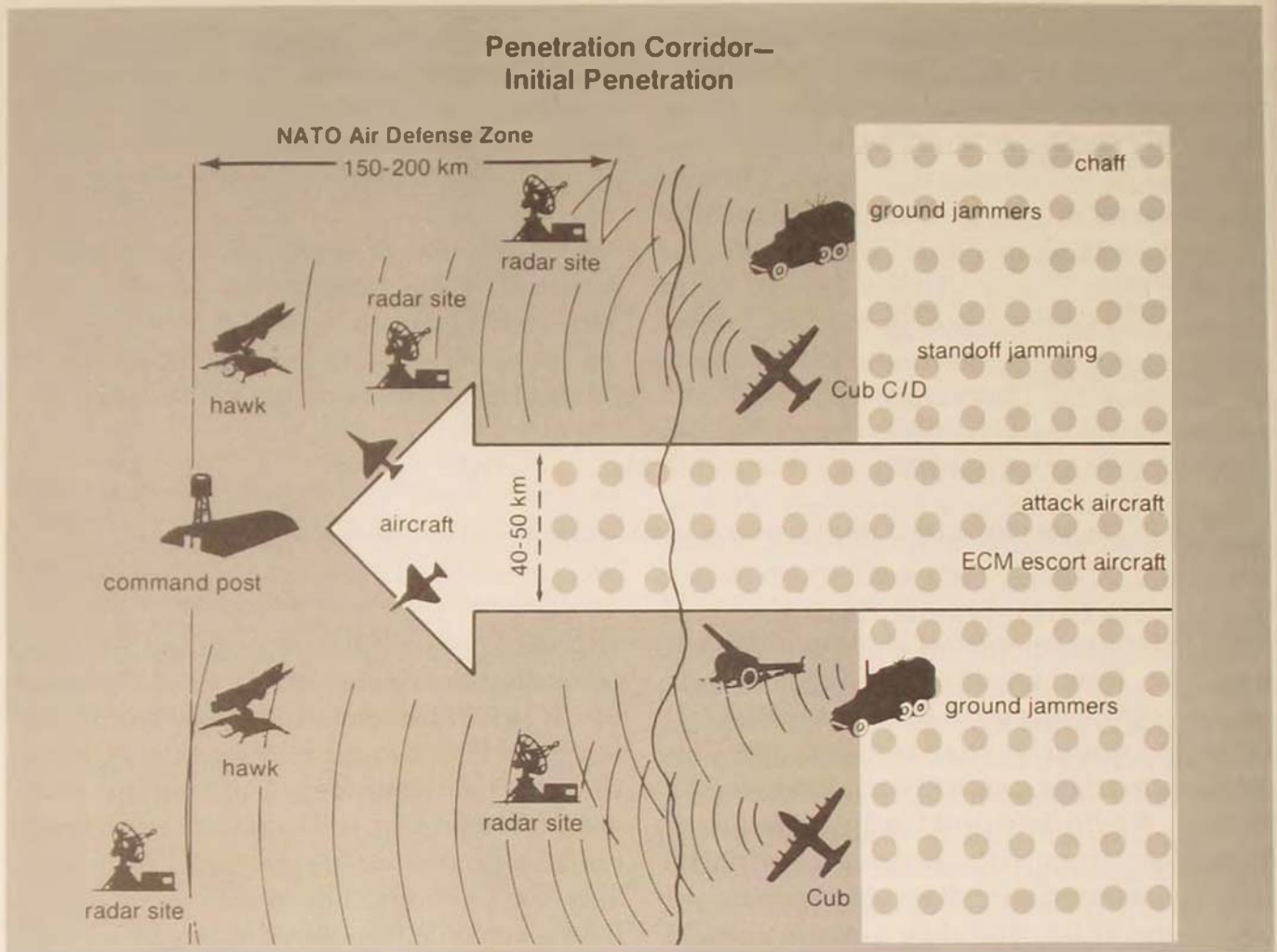


Figure 4. Corridor busting would consist of artillery, surface-to-surface missiles, and aircraft destroying air defense systems supported by stand-off and escort aircraft dispensing chaff and providing jamming. Coordinated ground jamming would disrupt air defense communication nets.

has probably reduced the number of fighters allocated to conduct ground attack on the first mass strike of an air operation to between 10-20 percent. This *frontal* aviation activity would be supported by Yak-28/Brewer Es moving into the penetration corridor to provide escort jamming and to extend the chaff corridor.<sup>42</sup> Simultaneously, reconnaissance aircraft would accompany the attack force to provide continuous reconnaissance and near real-time damage assessment for follow-on attacks.

Badger H aircraft following the deeper-penetrating aircraft in the first wave of the first

mass strike would extend the chaff corridor as air defenses were neutralized.<sup>43</sup> Standoff jamming would be continued by Cubs and, as the air penetration corridor became more secure, Cubs could move into the corridor to resow chaff. As strike aircraft in the chaff corridor approached their targets, they would exit, strike their targets, and subsequently egress from enemy airspace via the chaff corridor. During the invasion of Czechoslovakia, for example, a 200-nm chaff corridor and electronic jamming were used for more than six hours against Czechoslovakian ground radars. Since



then, the Soviets have continued to demonstrate their capability to reseed chaff corridors used to screen penetrating aircraft. This reseeded capability attests to the priority the Soviets place on chaff application as a penetration aid. Not only does the corridor screen the strike aircraft, but it masks the standoff jamming platforms as well. In addition, the Soviets equip many of their aircraft with a self-protection chaff capability.

The final wave of the first massed strike probably would follow the previous wave by minutes and consist largely of aviation reserves of the Supreme High Command. The mission of this main strike force would be to deny the enemy the ability to restore the combat power of its air forces through reconstitution at rear airfields out of range of *frontal* aviation.<sup>44</sup> Thus, penetration by the final wave of strike aircraft might well be 300 kilometers or more. Badger Js would provide escort jamming support for these strike aircraft.<sup>45</sup> Brewer E and Cub C/D standoff jamming probably would be moved over NATO territory to support the strike aircraft of this final wave of the first mass strike.

Blumenstein notes that long-range aviation probably would fly no more than two strikes on the first day of the air operation. Between the two mass strikes, *frontal* aviation could conduct an additional mass strike alone. According to Voroshilov General Staff Academy lecture materials, this second long-range strike and all subsequent mass strikes against enemy airfields would be "organized and carried out on the basis of reconnaissance information about the results of the initial mass strike." Furthermore, "subsequent massed strikes must be brought to bear on the enemy after the shortest of intervals following the initial mass strikes, so the enemy is denied the chance of restoring his airfields and regrouping his air forces."<sup>46</sup>

Between mass strikes, *frontal* aviation would concentrate its efforts on newly detected and reconstituted targets to a depth of 300 kilome-

ters. Musial makes the point that even

the completion of an air operation does not mean that the struggle for air supremacy has ended. An important role in [the struggle for air supremacy] is played by determined action by ground troops and especially operational maneuver groups [OMGs] as well as airborne assault forces.<sup>47</sup>

### Antiair Operation in a Contemporary Strategic Offensive

While an initial air operation in the contemporary period would have as a principal goal the attainment of overall fire superiority, an antiair operation would be focused on defending friendly forces and contributing to achieving air superiority. However, although the air and antiair operations have different objectives, they have an overlapping target set (i.e., aircraft, surface-to-air missile systems, and associated C<sup>3</sup> facilities), which both makes them mutually supportive and requires careful coordination.

The Soviets intend to unify air defense assets in any given theater of operations under a single concept and plan within the context of the strategic action.<sup>48</sup> If the Soviets do not hold the initiative in the air, then their immediate priority would be to conduct an antiair operation to provide friendly forces freedom of movement while simultaneously causing maximum attrition of enemy air and air defense assets. The Soviets would attempt to gain the initiative through combined offensive and defensive actions of *frontal* aviation, the National Air Defense Forces, missile troops and artillery, and the antiaircraft defense elements of other branches of the armed forces.<sup>49</sup> If the Soviets seized the initiative in the air through the preemptive execution of an air operation or have been able to wrest the initiative from the enemy, the major focus of the antiair operation would be on defensive actions to protect friendly forces and installations from NATO's remaining offensive air capability.

On their own side of the forward edge of the battle area, the Soviets would have to limit the passage of aircraft carefully by time and altitude. Given the Soviets' respect for NATO air power, plus their view that *frontal* aviation regiments constitute assets no less expendable than ground force divisions, it is likely that returning Soviet aviation not on the specified altitude and time schedule would run a high risk of being brought down by their own ground-based air defenses.

Although the loss of 175 aircraft over the course of the air operation would exceed historical attrition-rate experience, even the loss of 1000 aircraft might be considered acceptable by the Soviets if the operation succeeded in suppressing NATO's air and nuclear assets.<sup>50</sup> Within the framework of such losses, *frontal* aviation fighter aircraft will have to assume increased responsibility for ground attack. Some fighter-interceptors which, in fact, may have played some part in supporting aviation reserves of the Supreme High Command during the air operation might need to be moved forward to supplement those *frontal* aviation fighters still performing the air-to-air mission.

While the Soviets might move a limited number of fighter and ground attack aircraft to airfields seized by operational maneuver groups in the first days of a strategic offensive, within a day or two of the conclusion of a successful air operation, the Soviets probably would seek to move entire fighter regiments from the German Democratic Republic to captured and repaired NATO airfields. *Frontal* aviation fighter-bombers or bombers could then be moved forward to these vacated airfields in order to facilitate meeting ground force requirements. In these ways, the aviation air defense zone of activity would be moved forward over captured NATO territory early on. Subsequently, independent air defense formations—as large as a *front* for each strategic direction—would be created to ensure continuity of the air defense effort from the rear of the first-echelon *fronts* back to Soviet or Soviet-allied territory.<sup>51</sup> Such

air defense formations would incorporate both ground-based air defense assets and fighter aircraft. In addition, by the time the first-echelon *fronts* should have accomplished their initial objectives (likely to include the Kiel Canal, the Ems-Rhine riverline, and the isolation of U.S. forces in the south), the Soviets could move twenty-three additional regiments of fighters and fighter-bombers from the Soviet interior. This action would be sufficient to create two new air armies to support maneuver *fronts* of the second operational echelon of the first strategic echelon.

The Soviets would also use radioelectronic warfare resources to protect key installations from enemy air attack. The unit that is assigned this mission is the air defense jamming battalion. One unit is allocated to protect *front* assets while another ensures that army-level assets are not destroyed.<sup>52</sup>

### Soviet Perceptions Concerning Success

Soviet military scientists have given much thought to the use of air power in a conventional local war. According to their analysis, "in the 1950's through the 1970's, no local war involving modern (for that period) combat aircraft and air defense weapons was carried out without air strikes against enemy airfields."<sup>53</sup> The objective in these local wars was seen to have been as in earlier wars—i.e., to catch the enemy aircraft unsheltered. However, "particular attention was given to knocking out the operating area of the airfield, the concrete landing strip (for a certain time). Concrete-penetrating bombs were used for sealing off the airfield, and the resulting craters prevented takeoffs and landings." Except for "attacks made against the entrance doors of aircraft shelters using guided missiles," modern precision-guided weapons were not employed.<sup>54</sup>

Despite the reaffirmation of operational lessons learned, the experience of local wars of the 1950s through the 1970s also introduced new factors that had to be considered in the elabora-



tion of tactics: "the increased fire power of the aircraft, the equipping of them with sight and navigation systems and electronic countermeasures equipment; the defending of the airfields by surface-to-air missile complexes (in cooperation with antiaircraft artillery); the building of reinforced concrete aircraft shelters; [and] the creation of a tactical air defense zone equipped with organic antiaircraft weapons which had to be crossed by the aircraft on the way to the objective (the airfield)."<sup>55</sup>

Of particular interest, however, is how the Soviets concluded that modern weapons could contribute to making older weapons more effective. In describing the Soviet assessment in 1980, Colonel E. Tomilin wrote: "Despite the defense of airfields by surface-to-air missile complexes, the attacking side suffered a majority of losses from conventional antiaircraft artillery. This was explained by the fact that in fearing to be spotted by the detection and guidance radars of the surface-to-air missiles, the pilots in the strike groups used low altitudes. Avoiding danger from the modern defensive weapons, they fell under intensive firing by obsolete weapons which had been quickly readied for use."<sup>56</sup>

From this experience, the Soviets drew lessons concerning both "the importance of avoidance maneuvers" for the conduct of various aviation actions and the utility of traditional antiaircraft guns.<sup>57</sup>

The plausibility of a successful Soviet air operation has significantly increased as a result of the deployment of more capable aircraft and more accurate tactical (Frog and SS-21) and operational-tactical (Scud and SS-23) missiles. Thus, more accurate delivery systems have allowed the Soviets to obtain a greater potential for suppressing NATO's air and nuclear assets without nuclear means, while still having the ability to complete the task with nuclear means if that should be necessary. In addition, supporting both nuclear and nonnuclear options, Soviet radioelectronic combat activity is designed to introduce critical delays or confusion

into the NATO command, control, and communications systems through a combination of radioelectronic warfare and physical destruction. The Soviets have studied the NATO command and control structure in detail and believe that the high degree of NATO dependence on electronic control systems constitutes a significant vulnerability that can be exploited.

As was noted in the Voroshilov General Staff Academy lecture materials, "success in air operations is ensured by delivering surprise mass initial strikes on enemy airfields, where the main body of enemy aircraft is concentrated, with first priority on enemy nuclear-armed aircraft." Such surprise massed blows on the enemy's air forces "create favorable conditions for effective actions of friendly air forces, ensure better results of actions against the enemy airfields, contain and limit the deployment or redeployment of the enemy air forces, neutralize its activity, and deprive it of the initiative and the capability to support ground forces."<sup>58</sup>

The results of historical assessment and the experience of training exercises have led the Soviets to conclude that "despite the difficulties, the destruction of enemy air assets in the theater of action can be achieved in a short time by wise and clever actions."<sup>59</sup> In addition to citing the Israeli destruction of the Arab air forces in the 1967 Middle East War as a practical example of the successful execution of an air operation in the contemporary period, the Voroshilov General Staff Academy lecture materials cite the following example:

During one training exercise, where strikes were delivered against 313 aircraft positioned on ten dummy airfields, 45 percent of the aircraft, all runways, and 51 percent of command posts were destroyed. In addition 43 percent of radar posts, 45 percent of SAM control points, and 43 percent of antiaircraft artillery batteries were knocked out.<sup>60</sup>

### Implications for NATO

Over the last twenty years, the Soviets have given much serious thought to how the War-

saw Pact might best pursue victory in a European war initiated and perhaps limited to the use of conventional weapons alone. As a result, NATO's strategy of deterrence demands careful consideration of such Soviet plans. While Western analysts and strategic thinkers continue to argue over whether Soviet military thought suggests a preference for nuclear use if war should occur, the evidence indicates that the Soviets seek to avoid having to fight at all and especially with nuclear weapons. At the same time, the evidence also suggests that the Soviets remain hostile to the principles of Western democracy and that they have not deemphasized the necessity of being prepared to fight with the use of nuclear weapons as the best means of restraining NATO from employing such weapons. As a result, NATO must be prepared to deter conventional war independent of its effort to deter Soviet nuclear use.

As the credibility of the NATO nuclear deterrent has weakened with the West's loss of an obvious global and theater nuclear superiority, the balance of conventional forces has come to be ever more crucial. Because NATO has accepted a conventional force numerical imbalance, it is critical that NATO exploit its advan-

tage in air power, where approximately 50 percent of NATO's firepower lies. If the Soviets are convinced that NATO air power cannot be neutralized, their confidence in their ability to win a conflict against NATO and especially their confidence about being able to keep any such conflict nonnuclear will be affected significantly. Thus, if the Soviets perceive that NATO can quickly break the back of a Soviet air operation in the Western theater of military action, deterrence will be substantially enhanced at the conventional level.

The air operation plan is the linchpin for a Soviet strategic offensive against NATO. Given NATO's defensive nature, the first priority for NATO is to be able to survive an initial attack on NATO air bases. Two areas could improve NATO's chances to survive a Soviet air operation—modernized and more numerous ground-based air defenses, plus a surface-to-surface missile capability to suppress Warsaw Pact airfields. If our air assets are made more survivable and if the Warsaw Pact main operating bases are threatened with immediate response, then the entire Soviet strategic offensive in the theater of military action will be placed at considerable risk.

Washington, D.C.

#### Notes

1. S. A. Tyushkevich, *Sovetskiye Vooruzhenny Sily: istoriya stroitel'stva* (The Soviet Armed Forces: The History of Their Development) (Moskva: Voenizdat, 1978), p. 476.

2. Ibid.

3. *Voyennaya mysl'* (Military Thought) is the basic military-theoretical organ of the Soviet Ministry of Defense. The journal is published monthly, and access to it is restricted. In addition to this restricted-access edition, classified issues have at times been published. Each of the Warsaw Pact countries publishes its own version of the journal, occasionally reprinting particularly useful articles from versions published elsewhere in the Warsaw Pact.

4. Colonel Yu. Bryukhanov, "The Massed Employment of Aircraft," FBIS translation of *Voyennaya mysl'*, Number 6, June 1969, Foreign Press Digest No. 0008/70, p. 45.

5. Lieutenant General of Aviation N. N. Ostroumov, "Employment of Air Forces in Strategic Operations," *Voyennaya mysl'* (Moskva, September 1975).

6. Ibid.

7. Ibid.

8. Ibid.

9. Ibid.

10. Ibid.

11. Ibid.

12. Lieutenant Colonel Jan Blumenstein, "Frontal Aviation in an Air Operation," *Vojenska mysl* (Military Thought) (Prague, August 1975). Also see Kh. Dzhelaukhov, "The Augmentation of Strategic Efforts in Modern Armed Conflict," *Military Thought*, Number 1, 1964, in U.S. Air Force, *Selected Readings from Military Thought, 1963-1973*, Studies in Communist Affairs, Volume 5, Part I (Washington: GPO, 1982) (hereafter, *Selected Readings*, Part I), pp. 36-37; N. Ostroumov, "War Experiences and Aviation Exercises," *Voyenno-istoricheskiy zhurnal* (Military-Historical Journal, hereafter, *Vizh*), Number 8, 1977, pp. 47-51; and M. N. Kozlevnikov, *Komandovanie i shtab VVS Sovetskoi armii v velikoi otechestvennoi voine, 1941-1945* (Command and Staff of the Air Forces of the Soviet Army in the Great Patriotic War, 1941-1945) (Moskva: Izdatel'stov "Nauka," 1978), pp. 253-365.

13. Colonel Aleksander Musial, "Charakter i znaczenie operacji powietrznych we wspolczesnych dzialaniach wojennych" (The



Character and the Importance of Air Operations in Modern Warfare). *Przegląd wojsk lotniczych i wojsk obrony powietrznej kraju* (Polish Air and Air Defense Review—hereafter, *Polish Air Review*), 1982, p. 12.

14. Those who work frequently with translations can attest to how significantly a mistranslation can lead us all astray. For example, a February 1980 *Voyennyi vestnik* (Military Herald) article titled "Vnezapnost' v deistviyakh takticheskoi aviatsii" (Surprise in the Actions of Tactical Aviation) was translated by a U.S. government translation contractor as "Surprise in Tactical Air Operations." The difference between "actions" and "operations" is significant for Americans and certainly for the Soviets. See FSTC translation L-0016.

15. Musial, pp. 11-12. The destruction of a NATO aircraft carrier at sea would be undertaken by two squadrons of strike aircraft totaling about fourteen aircraft. See, for example, "Soviet Naval Aviation Bomber Force Modernization," *Jane's Defense Review*, vol. 4, no. 7, 1983, p. 619. The notion of mining airfields, mentioned also by Ostroumov, must be given greater reflection as a result of the extensive Soviet mining effort conducted by air in Afghanistan. See, for example, "PFM-1 Anti-personnel Mine Bomblet," *Jane's Defense Journal*, vol. 4, no. 9, 1983, p. 809.

16. An "independent" air operation (*samostoyatel'naya vozdukhnaya operatsiya*), in contrast, is on an operational-tactical scale and employs only assets of the air forces. As a smaller-scale operation, an "independent" air operation would probably occur only subsequent to an air operation in the course of a relatively protracted conflict. See P. S. Kutakhov, "The Conduct of Air Operations," *Vizh.*, Number 6, 1972, as translated in *Selected Soviet Military Writings, 1970-1975*, edited by William F. Scott (Washington: GPO, 1976), Soviet Military Thought Series, Number 11; V. Resnichenko and I. Suddenok, "Sistema obshchevoyskovykh i sovmestnykh operatsii" (The System of Combined-Arms and Joint Operations), *Vizh.*, Number 4, 1981; and Ostroumov. Musial argues that "an air operation today cannot be conducted independently—by the resources of the air forces alone. To achieve its set objectives it must employ, for example, missile and artillery forces, airborne assaults, naval forces, diversionary groups, reconnaissance resources." Musial, p. 13.

17. Musial, p. 12.

18. Blumenstein notes that "the air operation may last 2-3 or more days." However, the expected duration of the air operation may have increased in length by the early 1980s. A 1981 article in *Vizh.* cites a five-day air operation as a historical example. Lieutenant Colonel Ye. Belov and Lieutenant Colonel A. Pervov, "From the Experience of the Employment of Long-Range Aviation in the Third Period of the War," as translated in *USSR Report: Military Affairs*, No. 1660, JPRS 80390, 24 March 1982, p. 32.

19. "Air Operations to Destroy Enemy Air Groupings," lecture material from the Voroshilov General Staff Academy.

20. Musial, p. 13.

21. "Air Operations to Destroy Enemy Air Groupings."

22. General Charles A. Gabriel during an interview with Benjamin F. Schemmer, "We Can Count on Our Allies. I'm Not Sure the Warsaw Pact Can Count on Theirs," *Armed Forces Journal International*, January 1982, pp. 80-95; and "Air Operations to Destroy Enemy Air Groupings."

23. Blumenstein.

24. The Soviets maintain an estimate of the enemy's radioelectronic situation, which they use to assess critical links and nodes and their respective vulnerabilities. Such vulnerability analysis is conducted in close coordination with Soviet plans for offensive operations and their direction. The enemy radioelectronic situation consists of the enemy's command and control systems, the enemy's jamming capabilities, friendly electronic systems, front jamming troops and equipment, and terrain conditions. The Chief of Radioelectronic Warfare and the Chief of Reconnaissance jointly determine the most important and dangerous elements of the enemy

electronic systems so that they are targeted for jamming or destruction. They consecutively analyze and evaluate information on each enemy system of command and control with their different elements and differing levels down to battalions. "Organization and Conduct of Radioelectronic Warfare in Front Offensive Operations," lecture material from the Voroshilov General Staff Academy.

25. Blumenstein.

26. *Ibid.*

27. "Air Operations to Destroy Enemy Air Groupings."

28. The Soviets place heavy emphasis on disruption of the enemy's command, control, and communications (C<sup>3</sup>), which they would accomplish mainly through the use of radioelectronic combat. The Soviets feel that if they could introduce critical delays into the control process by either electronically interfering or physically destroying portions of the C<sup>3</sup> system, the system would become overloaded and NATO would lose its ability to respond in a time-sensitive manner. This is the essence of the Soviet concept of radioelectronic combat. Colonel L. Kuleszynski, "Some Problems of Surprise in Warfare," *Military Thought*, Number 5, 1971, in U.S. Air Force, *Selected Readings from Soviet Military Thought, 1963-1973*, Studies in Communist Affairs, Volume 5, Part II (hereafter, *Selected Readings, Part II*) (Washington: GPO, 1982), p. 87; A. I. Paliy, "Radioelektronnaya bor'ba" (Radioelectronic Combat), *S.V.E.*, Volume 7, pp. 29-30; and "Radioelektronnaya podavleniye" (Radioelectronic Suppression), *S.V.E.*, Volume 7, p. 30; A. I. Paliy, *Radioelektronnaya bor'ba (Sredstva i sposoby podavleniya i zashchity radioelektronnykh sistem)* (Electronic Warfare [Means and Methods of Disrupting and Protecting Electronic Systems]) (Moscow: Military Publishing House, 1981), p. 190.

29. "Soviet Radioelectronic Warfare," lecture material from the Voroshilov General Staff Academy.

30. "Organization and Conduct of Radioelectronic Warfare in Front Offensive Operations," lecture material from the Voroshilov General Staff Academy.

31. *Ibid.*

32. "The top-level NATO C<sup>3</sup> system is not just vulnerable; elements of it are so insecure that during the last major NATO exercise under Alexander Haig's tenure as Supreme Allied Commander, Europe, even the highly encoded traffic sent over a special communications net to NATO's nuclear units was intercepted so quickly by Soviet communications intelligence posts that the Russians broadcast a message in the clear on an open broadcast channel to the effect that, 'NATO's going nuke.'" Benjamin F. Schemmer, "No NATO C<sup>3</sup> 'Check-out Counter,'" *Armed Forces Journal International*, December 1982, p. 92.

33. "Organization and Conduct of Radioelectronic Warfare in Front Offensive Operations."

34. *Ibid.*

35. Musial notes that one of the component parts of an air operation is "attacks by missile troops involving the use of cluster charges with conventional weapons upon air base targets, anti-aircraft defense, and enemy command and control systems." He also talks about "action by the forces of the front . . . to neutralize the enemy AA defense and protect air force strike groups en route to their objectives." Musial, p. 12. Another source notes that "aviation operating in one region immediately following attacks by rocket troops can considerably weaken the enemy air defense system." Musial, p. 12. See also, M. Skovordkin, "Some Questions on Coordination of Branches of Armed Forces in Major Operations," *Military Thought*, Number 2, 1967, in *Selected Readings, Part I*, pp. 145-46; also see Kh. Dzhelaukhov, "The Infliction of Deep Strikes," *Military Thought*, Number 2, 1966, in *Selected Readings, Part I*, p. 113.

36. Benjamin F. Schemmer, "Soviet Technological Parity in Europe Undermines NATO's Flexible Response Strategy," *Armed Forces Journal International*, May 1984, pp. 80-95. The Soviets have approximately 730 tactical and operational-tactical rocket and missile launchers in the western theater of military action.

37. *Soviet Military Power* (Washington: GPO, 1984), pp. 69-70.
38. "Experience shows that detachments even consisting of several men which are landed from submarines or dropped from aircraft can destroy or put out of commission for a long time radar stations, control towers, long-range and short-range homing airport stations, glide-path and approach beacons, equipment for instrument landing, etc." N. Semenov, "Gaining Supremacy in the Air," *Military Thought*, Number 4, 1968, in *Selected Readings*, Part I, p. 206.
39. The term *udar voysk* (troop strike) was introduced in January 1982. See Major General I. Vorobyev, "Oruzhiye i taktika: Kommdir i sovremennyy boy" (Weapons and Tactics: The Commander and Modern Combat), *Krasnaya zvezda* (*Red Star*), 12 January 1982, p. 2.
40. An exercise in which a special weapons storage area is attacked by a battalion-size airmobile force is discussed in I. Zuyev, "BMD Ensures Maneuver (Experience of a Battalion Exercise)," *Voyennyy vestnik* (*Military Herald*, hereafter, *V.V.*), Number 2, 1976, pp. 28-31. The destruction of a special weapons storage facility by an airborne battalion is the subject of a later article in the same journal. See I. Koronov, "Batal'ion v nochnom reyde" (Battalion in a Night Raid), *V.V.*, Number 8, 1980, pp. 37-39.
41. Recent discussion in the press suggests that in forward bases in the German Democratic Republic, Poland, and Czechoslovakia there has been an increase in inventory levels of precision-guided air-to-surface missiles such as the AS-12 antiradiation missile. Western observers also have noted that live missile firings have been conducted with ground emitters operating within U.S. frequency bands that the Soviets would encounter during any conflict in central Europe. The AS-12 can be carried by Flogger, Fitter, and Fencer aircraft. "Soviets Reequip Forward Air Forces," *Aviation Week and Space Technology*, 21 May 1984, pp. 65-72.
42. Lieutenant Colonel D. B. Lawrence, "Soviet Radioelectronic Combat," *Air Force Magazine*, March 1982, p. 90.
43. *Jane's Defense Weekly*, Volume 1, 14 January 1984.
44. "Air Operations to Destroy Enemy Air Groupings."
45. *Jane's Defense Weekly*, Volume 1, 14 January 1984.
46. "Air Operations to Destroy Enemy Air Groupings."
47. Musial, p. 11.
48. Marshal of the Soviet Union and then Chief of the General Staff N. V. Ogarkov, "Strategiya voyennaya" (Military Strategy), *S.V.E.*, Volume 7, p. 564; "Protivo-vozdushnaya operatsiya" (Antiair Operation), *S.V.E.*, Volume 6, pp. 589-90; and P. Batitskiy, "The Second Duty," *Vestnik protivovozdushnoy oborony* (*Air Defense Herald*), Number 11, 1977, p. 11, as translated in FSTC-

HT-810-78, p. 21.

49. Witold Pokruszynski, "Operacja przeciwpowietrzna wojsk opk" (The National Air Defense Force Antiair Operation), *Polish Air Review*, Number 5, 1982, pp. 5-7.

50. The loss figure of 175 aircraft constitutes the maximum Soviet losses at a rate of 2 percent (i.e., twenty losses per 1000 sorties) for an air operation involving seven massed strikes. This rate compares to a U.S. attrition rate of 9/1000 in World War II, 4.4/1000 in the Korean conflict, and 3/1000 in Vietnam. In the 1973 Arab-Israeli War, the Israeli Air Force attrition rate was 8/1000, while the loss rate for the A-4, used primarily for close air support, was between 10 and 15 aircraft lost per 1000 sorties. The U.S. Air Force is said to consider an overall 2 percent loss rate as high. Peter Bogart, "The Vulnerability of the Manned Airborne Weapon Systems, Part 3: Influence on Tactics and Strategy," *International Defense Review*, December 1977, p. 1065.

51. In World War II, the Soviets found the gap between the air defense of the fronts and national territory air defense grew to 300 kilometers on occasion. See Gorbienov, "The Great Patriotic War: Trends in the Development of the Organizational Structure of Air Defense Troops," *Vizh.*, Number 11, 1980, as translated in *USSR Report: Military Affairs*, JPRS 77325, 5 February 1981, p. 29.

52. "Organization and Conduct of Radioelectronic Warfare in Front Offensive Operations."

53. Colonel E. Tomilin, "Chto vzyat' iz boyevogo opyta" (What to Take from Combat Experience), Number 12, 1980, p. 27; translated in *USSR Report: Military Affairs*, Number 1567, JPRS 77371, 11 February 1981, p. 33.

54. *Ibid.*, original p. 27 and translation p. 34.

55. *Ibid.*, original p. 27 and translation p. 33.

56. *Ibid.*, original p. 27 and translation p. 34.

57. *Ibid.*

58. "Air Operations to Destroy Enemy Air Groupings."

59. *Ibid.*

60. A U.S. government study prepared in 1979 concluded that such an operation conducted by the Soviets would fail to accomplish its objectives. However, the study also concluded that the replacement of Badgers by Backfires could increase Warsaw Pact capability substantially. By 1985 such a modernized force, it was predicted, "in three sorties could destroy about 1,000 aircraft (or approximately 45 percent of NATO's aircraft in Central Europe)." Furthermore, "this same 15-regiment [twelve with Backfires and three with fighter-bombers] attack force also could attack 30 runways and close over 80 percent of them. Three sorties in two days would close the runways for a period of days."



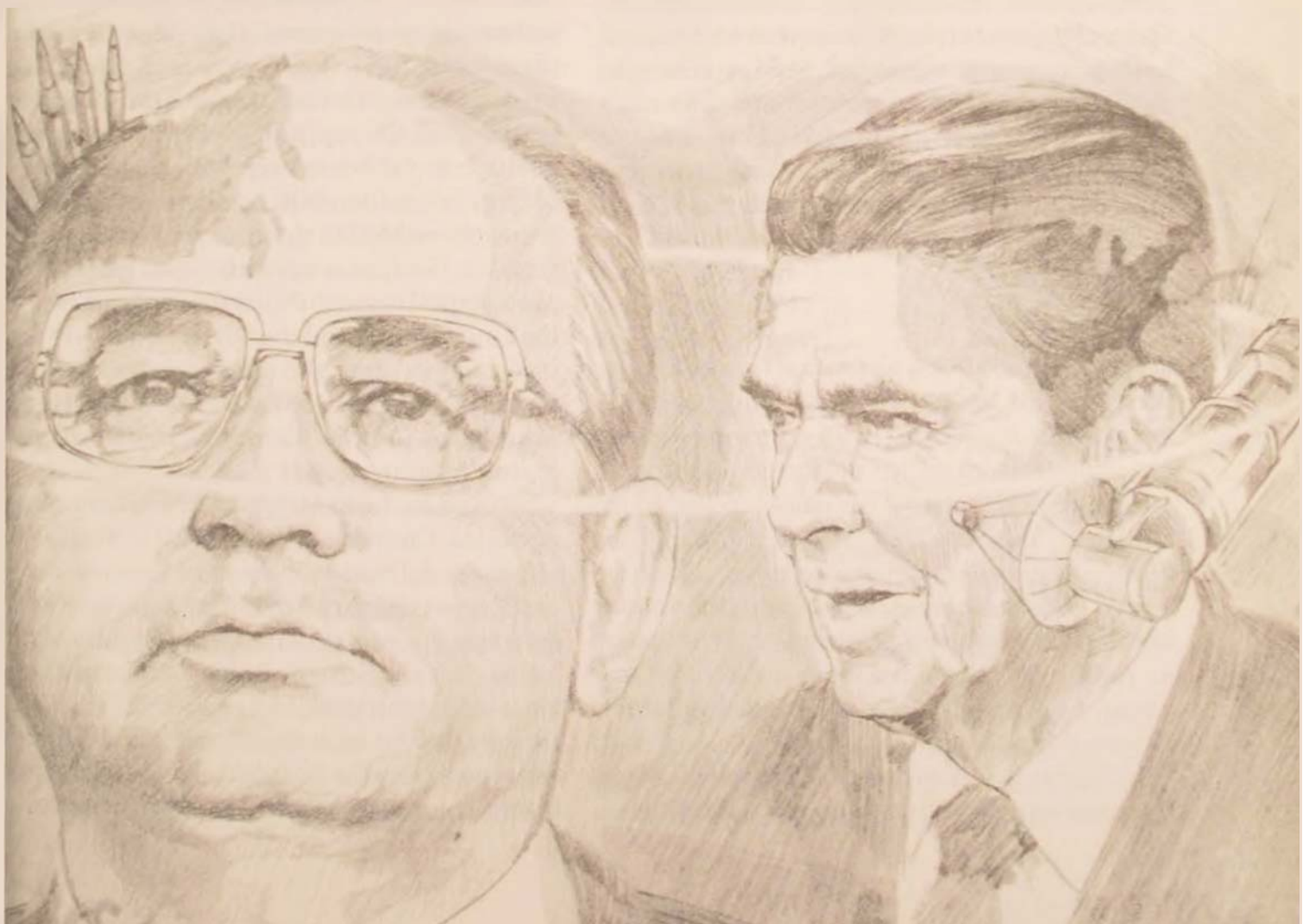
# SOVIET RESPONSES TO THE U.S. STRATEGIC DEFENSE INITIATIVE: THE ABM GAMBIT REVISITED?

DR. ILANA KASS  
THAN S. BURGER

**D**URING his recent visit to the United Kingdom, the Soviet heir apparent, Mikhail Gorbachev, played to a receptive audience when he suggested that progress in arms control and reductions in East-West tensions depend on U.S. willingness to abandon ongoing or future programs for the "militarization of outer space."<sup>1</sup> In calling for a halt

in U.S. programs to "place weapons in the heavens," however, the Soviet leadership and its principal propagandists are conspicuously silent about both their own ongoing strategic defense efforts and the impact of those efforts on arms control and strategic stability.<sup>2</sup>

Clearly, transforming the U.S. Strategic Defense Initiative (SDI) from a program into a



bargaining chip has been a major Soviet priority ever since President Reagan's so-called Star Wars speech of 23 March 1983. The double standard inherent in this approach, however, raises questions as to the true motivation underlying the Soviet propaganda offensive against the SDI, particularly in view of the lessons learned—or lessons that should have been learned—from the Antiballistic Missile (ABM) Treaty negotiations.

The purpose of this article is threefold: to analyze Soviet attitudes and perceptions regarding the SDI, to correlate these views with the Soviet Union's own strategic posture, and to assess how the Kremlin might attempt to counteract the U.S. initiative.

### Soviet Perceptions of the SDI

In anticipating the impact that the SDI is likely to have on future U.S.-Soviet relations and world peace, it is important to understand both the major tenets of Soviet strategic thought—the operative context of Soviet reaction to anything the United States does in the realm of military affairs—and the salient features of Soviet reactions thus far to the SDI.

#### *the doctrinal basis of the Soviet attitudes toward the SDI*

Soviet world outlook and behavior stem from the tenet that "socialism" and "imperialism" are engaged in an unrelenting, uncompromising struggle from which the former is destined to emerge victorious.<sup>3</sup> This tenet is reflected in a military doctrine that does not distinguish between deterrence and warfighting.<sup>4</sup> Much as a good offense is considered the best defense, an effective war-fighting posture is seen not only as restraining the adversary's inherently aggressive intentions but as guaranteeing Soviet victory should war break out.

In Soviet military doctrine, the offensive is the basic type of military operation. It is main-

tained, however, that even with surprise preemptive use of nuclear weapons, the attacker is unlikely to escape retaliation. Hence, the Soviet-perceived need for the greatest possible damage limitation to the Soviet Union's political, economic, and military system is fully congruent with the Soviet view of war conduct and outcome. If victory is to be attained, a viable society and economy must survive the war. Stated differently, while defensive strategy is an anathema, a defensive component is an essential part of the overall strategy. The dividing line between offensive and defensive force postures, so familiar to Americans, is thus blurred.

Such a perspective has far-reaching implications for Soviet military programs. It sustains the view that offensive and defensive weapons evolve through a "permanent interaction," wherein improvements in one require and lead to improvements in the other. Inasmuch as there are no objective limits on "scientific-technological progress," the cycle of weapons development is self-perpetuating, precluding, by definition, the emergence of an "absolute weapon" or the capping of the process itself.<sup>5</sup>

Much as the Soviets reject Western concepts of mutual vulnerability and mutual assured destruction (MAD), their view is incompatible with the Western action-reaction model which places equal responsibility for the arms race on the United States and the Soviet Union. Rather, in the Soviet view, the arms race derives solely from the "aggressive nature of contemporary imperialism," to which Soviet military programs must respond. The arms race ceases when and to the extent that U.S. programs are curtailed. Conversely, any and all U.S. military efforts by definition "whip-up the arms race" and "upset the parity that has been established between the two superpowers."<sup>6</sup> It should be noted that the Soviet concept of "parity" has little to do with actual force sizes and capabilities. Rather, it is a descriptive term, applied consistently to the post-SALT I correlation of forces.



*Soviet reaction to the SDI:  
sauce for the goose is not sauce for the gander*

Moscow's reaction to President Reagan's 23 March 1983 announcement of the SDI was quick, angry, and fully in line with the basic tenets of Soviet doctrine. Throughout, the Soviets made extensive use of Western criticism of and objections to the SDI, thus playing to Western public opinion and underscoring the alignment of Moscow's positions with those of "sober thinking" U.S. and European peace activists.<sup>7</sup>

However, while at times employing derogatory language in reference to the SDI—for example, "the Washington Skywalkers" or "the President's April Fool Jokes"—Soviet commentary for the the most part has carefully avoided endorsing Western criticisms that effective defense is technologically unattainable.<sup>8</sup> Apparently, the Soviets have more respect for U.S. technological capabilities than many Americans do.

Two general characteristics demonstrate the degree of Moscow's rancor: *the authoritative level of the response and the volume of the Soviet campaign against the SDI.* From the outset of U.S. discussion of SDI, the Soviet response has involved the top rung of the Soviet political and military hierarchy. The first Soviet reaction to the SDI was General Secretary Yuri Andropov's 27 March 1983 *Pravda* statement. Other high-ranking officials (notably Minister of Defense Dmitrii Ustinov, then-Chief of the General Staff Nikolai Ogarkov, and Foreign Minister Andrei Gromyko) were quick to join in. Their statements were subsequently echoed and amplified by lower-ranking officials.

The sheer volume of the Soviet propaganda campaign against the SDI continued to increase in terms of shrillness and quantity of commentaries. During the first three months following President Reagan's announcement of the SDI (i.e., late March through June 1983), the initiative was attacked in virtually every pronouncement concerned with Soviet-U.S. re-

lations, i.e., at least once a day in the major newspapers and radio and television broadcasts. The Soviet campaign is continuing as of this writing at only a slightly abated level. In terms of vituperation, the campaign against the SDI parallels those unleashed by the Soviet media in response to actual deployment of U.S. weapon systems, for example, the Pershing II and ground-launched cruise missiles (GLCMs) in Europe.

#### *major themes of the Soviet reaction*

Five themes characterize the Soviet campaign against the SDI.

*The SDI is another example of U.S. aggressive intentions.* In comments ranging from broad assertions to specific accusations, the Soviets have conveyed the idea that the United States is preparing a first-strike capability with which to either "blackmail" the Soviet Union or wage and win a nuclear war. Thus, the SDI is said to be "not a new departure but, rather, an integral part of a vast, purely aggressive program of military preparations and further evidence that the present U.S. administration is not simply preparing for nuclear war but has set a course toward unleashing such a war."<sup>9</sup>

The SDI is not a surprise, the Soviets claim, but a "logical continuation of ongoing U.S. programs aimed at a systematic and purposeful renewal of American military potential."<sup>10</sup> Furthermore, the SDI will be accompanied by an accelerated offensive buildup, designed to provide the United States with a first-strike capability.<sup>11</sup>

The Pentagon plans to build up strategic offensive weapons and to develop ballistic missile defense and space systems are coordinated in terms of their schedule, and aim at completing the deployment of the so-called first-strike potential in the 1980s.<sup>12</sup>

*The SDI is not a defensive concept.* The defensive aspect of the SDI, the Soviets assert, is simply a mask for something far more ominous. As Andropov put it and as has been re-

peated many times since, the SDI may appear defensive "on the face of it but only to those who are not conversant in these matters."<sup>13</sup>

The White House is building in a hurry a "space shield" and deceitfully calls it "defense"; but under the cover of that shield it counts on impunity in delivering a first strike.<sup>14</sup>

Only at first glance does defense appear to be defense, not attack.<sup>15</sup>

*The SDI escalates the arms race, upsets parity, and increases the danger of war.* Soviet statements aver that the current U.S. administration has adopted a policy that holds grave risks for both superpowers.

Reagan's new initiative undermines the approximate parity in weapons and forces existing between the USSR and the U.S. It is a new, more dangerous spiral in the arms race. Parity will be maintained, albeit at a higher, and, therefore, more dangerous level.<sup>16</sup>

The growing danger of war is the stern reality of our times. Washington's quest for superiority, reflected in the escalation of the arms race by the U.S. and NATO, is gathering momentum and entering a qualitatively new, significantly more dangerous, phase. Some people in the West term this decision, the SDI, a "new defensive concept." In reality, however, this is a further improvement of the U.S. offensive capability, designed to disarm the USSR in the face of the U.S. nuclear threat. This is extremely dangerous and irresponsible.<sup>17</sup>

*The SDI undermines the ABM Treaty.* The Soviets have stated that "President Reagan's 'initiative' is designed to undermine the ABM Treaty of 1972 and other bilateral and multilateral arms control accords."<sup>18</sup> The precise point at which an actual violation will occur, however, is not yet clearly defined by the Soviets. For example, *Izvestiia* in April 1983 stated that "the deployment of the systems comprising the SDI will be a direct violation of the [ABM and SALT] accords."<sup>19</sup> Contrast this statement with a more sweeping military view expressed less than two weeks later that the President's 23 March 1983 speech "in and of itself violates the treaties."<sup>20</sup>

*The SDI makes Europe less safe.* Playing to West European public opinion, the Soviets have clearly hoped that NATO allies in Europe will add their voices of protest to persuade Washington to abandon the SDI. Paralleling their efforts to foment European protest against the Pershings and GLCMs, the Soviets have hammered away at the theme of increased danger for Europe and stressed that the SDI makes Western Europe into a "nuclear hostage."<sup>21</sup> Amplifying this idea, the Soviets have also stated:

The U.S. leaders also wish to use their Western European allies for transforming space over Europe into an arena for waging war. U.S. strategists intend to turn Western Europe into a U.S. frontline position, with all the ensuing consequences.<sup>22</sup>

### Soviet Position on Strategic Defense: A Consistent Double Standard

Current Soviet views of the SDI reflect consistency in the Soviet Union's approach toward the strategic defense issue, as well as the double standard inherent in this approach. The Soviet Union's own long-standing commitment to strategic defense was never accompanied by its acceptance of a possible similar commitment by the United States.

Soviet military doctrine sees strategic defense as an integrated, multilayered system of "antiaircraft, antimissile, and antispace defenses," supplemented by an extensive civil defense program and designed to work in synergy with an effective first-strike posture.<sup>23</sup> In the Soviet view, "if the potential opponents [both] possess weapons of mutual destruction, decisive advantage goes to that side which first manages to create a defense from it."<sup>24</sup> This tenet goes far to explain the Soviet Union's consistent commitment to its own strategic defense as well as its no less consistent efforts to forestall U.S. progress in the area. The Soviet positions prior to and following the ABM Treaty negotiations illustrate these twin efforts.



In the period before the start of the ABM Treaty negotiations, the Soviets adhered to the view that ballistic missile defense is by definition a purely defensive system, the curtailment of which can be sought only by a potential aggressor. Consequently, the Soviet Union refused to negotiate ABM limitations. Ironically, the pre-1969 Soviet posture parallels the current U.S. position as embodied in the SDI, namely, that strategic defense is designed "to save human lives," is well worth the cost, and should not be curtailed other than in the context of an overall arms control framework.<sup>25</sup>

In mid-1968, however, the Soviets abruptly changed their position and began signaling their willingness to negotiate ABM limitations. An initial U.S.-Soviet agreement to start talks, scheduled for public announcement on 1 August 1968, was overturned by the Warsaw Pact invasion of Czechoslovakia. By October, the Soviets were renewing their efforts to get the talks off the ground, but a further delay was caused by the U.S. presidential elections. It was not until October 1969 that the 17 November 1969 start date was announced. In retrospect, there appears to be little doubt that Moscow's about-face resulted from growing concern about the technologically robust U.S. ABM program, most notably the Safeguard system, coupled with early disappointments with the capabilities of the Soviet Griffon and Galosh ABM systems. The Griffon, first publicly displayed in 1963 and scheduled for deployment around Leningrad, was dismantled in 1964, presumably because of technical problems. The Galosh, first paraded in 1967 and initially deployed around Moscow, followed with a similar fate. In late 1968, the Soviets abruptly halted construction with only about two-thirds of the system completed.

Correspondingly, the Soviet public position was restructured to underscore the destabilizing nature of the U.S. ABM deployments and the ensuing need to limit the U.S. programs. However, the Soviets have never publicly acknowledged that a Soviet system could also be

destablizing (or that mutual ABM limitations would reduce the Soviet offensive buildup).<sup>26</sup> This double standard continues to shape the Soviet Union's position.

From the Soviet point of view, the ABM Treaty was an important political and military success. The U.S. ABM program was effectively checked. Had negotiations (and U.S. domestic politics) failed to prevent the planned Safeguard deployment, the Soviet Union would have been placed at a disadvantage by the technological superiority of the proposed U.S. system. Trading off Galosh for Safeguard was thus a very good bargain for the Soviets.<sup>27</sup>

The ABM Treaty did not specifically limit qualitative improvements in the two sides' arsenals. The United States, however, followed the spirit of the treaty, reducing its missile defense R&D program. The Soviet Union, on the other hand, intensified its efforts in all areas of strategic defense, ABM research and development in particular. Concurrently, the buildup of Soviet offensive systems continued unabated. Furthermore, the Soviets declared both a right and a determination to continue their military programs, the ABM and SALT accords notwithstanding. For example, First Deputy Foreign Minister Vasili Kuznetsov declared in August 1972 that "it goes without saying that until the danger of war is eliminated, the Soviet Union, as before, will continue to initiate all necessary measures to safeguard its own security and that of its allies."<sup>28</sup> That a similar posture was communicated directly to the United States is clear from President Richard Nixon's June 1972 congressional testimony in which he underscored:

I think, however, I owe it to you and to the Nation to say that Mr. Brezhnev and his colleagues made it absolutely clear that they are going forward with programs in the defensive and offensive areas which are not limited by these agreements.<sup>29</sup>

Against this background, it is clear that little has changed in the Soviet posture. Moscow's virulence toward the SDI, while reflecting genuine concerns that the United States might

use its superior technological base to break out of arms control constraints, continues to be designed to thwart U.S. progress in those areas where it is seen as technologically more advanced. As Dr. Richard DeLauer, then-Under Secretary of Defense for Research and Engineering, indicated in his 1984 congressional testimony, the Soviets may have a significant lead over the United States in deployed ballistic missile defense (BMD) and antisatellite (ASAT) interceptor systems—a lead that results from and clearly demonstrates the level of their post-1972 effort—but the United States is technologically superior in many areas relevant to the SDI. These fields include computers and software, electro-optical sensors, radar sensors, guidance and navigation, lightweight and high-temperature-resistant materials, micro-electronic materials and integrated circuits manufacturing, aerospace propulsion, signal processing, and telecommunications. Only in the areas of aerodynamics, power sources, and directed-energy technology did Dr. DeLauer believe the Soviets to be on par with the United States.<sup>30</sup>

### How the Soviet Union Might Attempt to Counteract the SDI

To explore the avenues that the Soviet Union is likely to pursue in its effort to counteract the SDI, one must consider both the Soviet threats of forthcoming response and the realistic options open to Moscow.

#### *Soviet threatened responses*

Soviet statements on what the Soviet Union is going to do about the SDI fall into three broad categories. First, a number of statements have contained unspecified threats of retaliatory measures:

Every action brings about a counteraction. We will not remain unarmed.<sup>31</sup>

The Soviet Union cannot stand still; we will be forced to adopt retaliatory measures.<sup>32</sup>

A second type of statement that the Soviets have made contains threats of accelerated buildup of Soviet offensive systems to “overcome” the U.S. BMD:

The USSR has always been able to duly reply to any challenge. No matter what weapons and in what quantity the U.S. might produce, the Soviet Union will always be able to match them.<sup>33</sup>

The efforts of one side to form an “absolute shield” force the other side to enhance devices for overcoming it, all the more so since the anti-missile defense will naturally have its weak vulnerable spots—in the control, command and targeting systems, in the work of the computers and so forth.<sup>34</sup>

The antimissile system devised by them can be vulnerable. Indeed, it may even be possible to break through.<sup>35</sup>

Finally, the Soviets have claimed that they have the technological wherewithal to match and possibly surpass the SDI:

The makers of the American “wonder weapon” are wrong when they assume that the “Russians cannot match the United States” in standards of technological development. It must be clear to everyone that nowadays there cannot be any major differences between the superpowers. The advanced nations have reached approximately the same scientific-technological standards and have weapons that are roughly equivalent, though naturally, there can exist insignificant differences in some respects.<sup>36</sup>

The USSR opened space to mankind. The launching of the first Sputniks, Gagarin's flight gave once and for all an unequivocal answer to all kinds of speculation as to our technological capabilities and level of development.<sup>37</sup>

The obsession with a policy of strength in the White House deprives it of any sort of sense of reality, and, therefore, [it] cannot see that the world has radically changed, [nor] understand the impracticality of its efforts to achieve military superiority. The USSR has more than once shown that it possesses the economic and scientific potential to permit it in the shortest possible period to respond in an adequate manner to any type of threat to its security.<sup>38</sup>

#### *Soviet options*

The preceding analysis and the overall context of Soviet military doctrine and past behavior



provide a framework for assessing the Soviet Union's realistic options. The Soviet Union appears to have four options open—two political and two military.

One of its political options is to *abrogate the 1972 ABM Treaty*, i.e., either exercise its right to withdraw from the treaty in accordance with the provisions of Article XV or otherwise declare the treaty null and void. This choice has a very low probability for several reasons.

First, there are no indications thus far that the Soviets are seriously considering it. Indeed, the only possible hint in this direction was the late Dmitrii Ustinov's 22 May 1984 statement that arms control is "equally needed by the U.S. and the U.S.S.R. Abrogation of the ABM Treaty will not serve U.S. security interests."<sup>39</sup>

Another reason why Soviet abrogation of the treaty is unlikely is that it would be politically more expedient to place the onus of treaty violation or abrogation on the United States, thereby adding weight to the Soviet charge that the Reagan administration has no interest in arms control. Moreover, since the Soviets view arms control accords as a means of limiting U.S. military programs, the ABM Treaty may still be deemed useful in constraining the United States and decreasing the likelihood of full-scale funding of the SDI by Congress.

Finally (and perhaps most importantly), since the existence of the ABM Treaty has not, thus far, prevented the Soviet Union from developing its own active strategic defense, the Soviets feel no pressing military need to declare the treaty null and void.<sup>40</sup> Indeed, the Soviets are most likely to parallel U.S. SDI work without abrogating the treaty unless and until the United States does.

The second political option that the Soviets have is to *try to repeat the ABM gambit*, i.e., use arms control and political pressure as a means to forestall U.S. military progress, trading off, if necessary, an inferior Soviet system (as in the Galosh-Safeguard bargain) while reserving the right for continued R&D efforts. Clearly, the Soviets are currently pursuing this option and

will probably continue to do so in the future, most likely in conjunction with one of their military options. From the Soviet vantage point, these efforts can yield significant political returns. For example, by advancing arms control proposals, the Kremlin promotes the Soviet Union's image as a "peace-loving" country, scoring important propaganda points in the United States, Europe, and the Third World. Concurrently, the United States can be portrayed as the "only obstacle to peace and stability"—an accusation that is likely to generate both domestic and international pressure for U.S. leaders to show greater "flexibility" in response to Soviet overtures. Already existing strains in the NATO alliance can be further exacerbated by direct Soviet approaches to West European leaders and public opinion (as illustrated by Gorbachev's London performance in January).

The Soviets also have two military options. The first is to *continue the parallel commitment to strategic offense and defense*, i.e., continue development and deployment of offensive and defensive systems within the broadly interpreted confines of the ABM Treaty and the SALT accords.

This military option can be pursued, as in the past, concurrently with political efforts to achieve arms control agreements. It would be consistent with the Soviet view of warfighting, which mandates superiority in both offense and defense. As regards strategic defense, in particular, the Soviets are likely to parallel the SDI while:

- Upgrading the Moscow ABM system up to the 100 launchers permitted by the treaty.<sup>41</sup>
- Accelerating ABM R&D.
- Providing supplemental point-target coverage with SA-X-12 and SA-10.
- Continuing development of ground-based and space-based directed energy weapons.
- Improving ASAT capabilities.
- Upgrading tracking, target acquisition, surveillance, and battle management systems.

The Soviets may have some incentives for working on their own strategic defense efforts while allowing the United States to take the lead in space-based systems R&D. The development and testing of space technologies will be exceedingly expensive; not all avenues currently being investigated are likely to yield results. Thus, the Soviets may prefer to wait and see what technologies the United States has determined to be the most promising, subsequently modeling their own system on the proven elements of the U.S. effort.<sup>42</sup>

The second military option that the Soviets have is *deliberate breakout*, i.e., "stretching" the ABM Treaty to the breaking point by carrying out as many covert predeployment moves as they can get away with, but delaying overt violations as long as possible. Pursuit of this option may or may not entail the political act of abrogation. However, the Soviets are more likely to violate the treaty and deny the violations than declare the treaty null and void. Past cases of breakouts support the conjecture that the violator is more likely to force the opponent to abrogate than to exercise this option himself.

For the United States, this scenario is the most worrisome possibility, since U.S. planners may not be able to distinguish the breakout option from the first military option until too late. Should the Soviets opt for a breakout, they are most likely to:

- Continue ABM R&D to the point of designing a usable replacement for the Galosh-1B.
- Deploy components of the system while concealing their true nature, designation, or mission (e.g., large phased array radars, SAMs with ABM capability, etc.).
- Prepare for rapid deployment of a large-scale, nation-wide ABM system for which sites could be built up in a matter of months.

Thus far, the Soviet effort in Geneva to halt U.S. SDI work as a precondition of further negotiations indicates that the Soviet Union has chosen to exercise its second political option, i.e., repeat the ABM gambit. No doubt, at least one of the military options will accom-

pany Moscow's political endeavors; the U.S. dilemma is determining which one.

THE Soviet Union is consistent in its view that strategic defense is an integral component of Soviet warfighting and war survival capabilities. In the Soviet perspective, mutual destruction is not an acceptable policy for rational leaders. As its authoritative spokesmen have asserted repeatedly for decades, the Soviet Union cannot and will not base its security and survival on the goodwill or rationality of the enemy.

Soviet military doctrine lacks the concept of strategic sufficiency. As a result, the military programs driven by this doctrine are, by definition, open-ended. The only limitation acknowledged by this doctrine is the temporary obstacle of technical feasibility. Thus, the buildup of Soviet strategic defense is not linked directly to any specific level or trend in U.S. military programs. Soviet strategic defense—as well as offense—generates its own momentum as something that must be because of the "immutable laws of war" and the requirements of victory in war.<sup>43</sup>

Soviet military doctrine holds that the Soviet objective in any war, including a central strategic confrontation with the United States, must be victory, i.e., destruction of the opponent's power base while preserving the Soviet Union as a viable system with resources and power to affect restoration and maintain domination after the war. To achieve victory, the Soviets look to a combination of military systems working in synergy: strategic offense, strategic defense, and civil defense. None of the systems in this triad is expected to be 100 percent effective; and none is assessed in isolation but only as it relates to the other two. "Victory," in the Soviet view, "is attained through the joint efforts of all the Armed Forces' services and branches."<sup>44</sup> In essence, this doctrine means that the Soviets will continue to build and rely on strategic nuclear forces (intercon-



inental ballistic missiles, submarine-launched ballistic missiles, and long-range aviation), to destroy as large a portion of enemy strategic weapons as possible before they are launched against the Soviet Union; strategic defense (BMD, "antispaces defense," and antiaircraft defense), to destroy in flight as many as possible of the enemy's surviving weapons; and civil defense (sheltering, dispersal, and postattack reconstruction planning), to minimize the destructive impact of those enemy weapons that do get through to targets in the Soviet Union.

Given these systemic aspects of Soviet military doctrine, there is little reason to expect a

significant change in the Soviet Union's commitment to both strategic offense and defense, nor should one anticipate diminution in Soviet efforts to forestall any U.S. initiatives that might enhance U.S. security or challenge Soviet strengths in the current correlation of forces.

Arlington, Virginia

**Authors' note:** Portions of the original research for this article were conducted under the auspices of the Center for Naval Warfare Studies, Naval War College, Newport, Rhode Island. We wish to thank William A. O'Neil and Brian McCue of SRA Corporation for their insightful comments.

#### Notes

1. *Washington Post*, 19 and 20 December 1984.
2. See for two recent notable examples, Aleksei Arbatov, *Voennostrategicheskii paritet i politika SShA* (Moscow: Izdatel'stvo Politicheskoi Literatury, 1984), pp. 229-41, and Yevgeny P. Velikhov, "Space Weapons: Effect on Strategic Stability," *Bulletin of Atomic Scientists*, May 1984, pp. 12S-15S.
3. See *voina* (war) in N. V. Ogarkov, editor, *Voennyi entsiklopedicheskii slovar'* (Moscow: Voennoe Izdatel'stvo, 1983), pp. 151-52 and Ogarkov, *Vsegda v gotovnosti k zashchite otechestva* (Moscow: Voennoe Izdatel'stvo, 1982), pp. 50, 55, and 56.
4. There is no Russian equivalent for the word *deterrence*. The term used by the Soviets (*sderzhivanie*) has no connotation of mutuality and is best translated as imposing restraint on the adversary but not on oneself.
5. Ogarkov, *Vsegda v gotovnosti*, p. 36; also see pp. 41-43.
6. Ogarkov, *Izvestia*, 23 September 1983, and D. F. Ustinov, *Pravda*, 12 July 1982.
7. *Izvestia*, 15 April 1983, and *Pravda*, 10 May 1983.
8. *Pravda*, 30 March 1983, *Literaturnaya gazeta*, No. 14, 6 April 1983, and *Krasnaya zvezda*, 26 September 1984.
9. *Literaturnaya gazeta*, No. 14, 6 April 1983.
10. *Krasnaya zvezda*, 5 August 1983.
11. TASS, 9 April 1983, in Foreign Broadcast Information Service, *Daily Report: Soviet Union* (hereafter referred to as FBIS), 12 April 1983, p. AA-7.
12. *Pravda*, 28 March 1983.
13. Yu. V. Andropov, *Pravda*, 27 March 1983.
14. *Krasnaya zvezda*, 27 August 1984.
15. Radio Moscow, 31 March 1983 in FBIS, 1 April 1983, p. AA-8.
16. *Krasnaya zvezda*, 15 April 1983.
17. Major General of Aviation C. Khelipov, *Krasnaya zvezda*, 14 April 1983.
18. TASS, 24 March 1983 in FBIS, 24 March 1983, p. AA-2.
19. *Izvestia*, 15 April 1983. Italics added.
20. General of the Army A. Epishev, *Krasnaya zvezda*, 27 April 1983. Italics added.
21. TASS, 28 February 1984 in FBIS, 28 February 1984, p. AA-1.
22. *Krasnaya zvezda*, 5 August 1983.
23. See *strategicheskaya oborona* (strategic defense), *protivovozdukhnaia oborona* (antiair defense), *protivoraketnaia oborona* (antimissile defense), and *protivokosmicheskaya oborona* (antispaces de-

fense) in Ogarkov, *Voennyi entsiklopedicheskii slovar'*, pp. 710, 597, 598, and 599.

24. Colonel V. M. Bondarenko, *Sovremennaya nauka i razvitiye voennogo dela* (Moscow: Voennoe Izdatel'stvo, 1976), p. 132.

25. See, for example, Prime Minister Kosygin's 1967 statement in Glassboro, New Jersey, cited by Michael J. Deane, *Strategic Defense in Soviet Strategy*, Monograph in International Affairs (Washington, D.C.: Advanced International Studies Institute, 1981), p. 33.

26. For more detailed analyses of Soviet positions prior to and during the ABM negotiations, see Deane, op. cit., and Mark E. Miller, *Soviet Strategic Power and Doctrine: The Quest for Superiority*, Monograph in International Affairs (Washington, D.C.: Advanced International Studies Institute, 1982).

27. The Nixon administration originally proposed to defend four ICBM sites. In 1972, the United States signed the ABM Treaty that permitted each side the right to deploy two ABM complexes: one to defend the national capital and the other to defend an ICBM launch site. In 1974, the treaty was amended to allow for only one ABM site per country. In 1976, Washington deactivated its one operational ABM site in Grand Forks, North Dakota. The Galosh-1B around Moscow is thus the world's only operational ABM system.

28. *Pravda*, 24 August 1972. From the Soviet perspective, the "danger of war" can be eliminated only through the elimination of imperialism—the source of all wars. Stated differently, as long as the United States exists, so does the "danger of war" and the ensuing need for a Soviet military buildup.

29. Cited in Deane, p. 74.

30. Statement by the Honorable Richard D. DeLauer, Under Secretary of Defense for Research and Engineering, to the 98th Congress, 2d Session, *FY 1985 DoD Program for Research, Development, and Acquisition* (Washington, D.C.: Department of Defense, 1984), p. II-32.

31. Colonel General N. Chervov, interview with Budapest Domestic Television, 21 April 1983 in FBIS, 22 April 1984, p. AA-3. Chervov, a General Staff officer, emerged as one of the key Soviet military spokesmen on the Strategic Defense Initiative.

32. Radio Moscow, 13 April 1983 in FBIS, 13 April 1983, pp. AA-2-3.

33. *New Times*, No. 24, June 1983.

34. Chervov, interview with *Bratislava Pravda*, 29 April 1983 in FBIS, 3 May 1983, p. AA-1.

35. Chervov, interview with Budapest Domestic Television, 21

April 1983 in FBIS, 22 April 1983, p. AA-3.

36. Chervov, interview with *Bratislava Pravda*, 29 April 1983 in FBIS, 3 May 1983, p. AA-1.

37. *Krasnaya zvezda*, 23 May 1983.

38. *Krasnaya zvezda*, 26 September 1984.

39. *Krasnaya zvezda*, 22 May 1984.

40. In recent years, Soviet spending on strategic defense has equaled their spending on strategic offense. According to the U.S. Chief of Naval Operations James D. Watkins, "the Soviets have outspent us more than twenty to one in the area of strategic defense, not to mention the tremendous amount they allocate to civil defense." Admiral Watkins' remarks at the Intrepid Museum Luncheon, New York, 13 April 1984.

41. DOD analysts report that the Soviet Union is currently upgrading the Moscow ABM system. When completed in the late 1980s, "the new system will be a two-layer defense composed of silo-based, long-range modified Galosh interceptors designed to

engage targets outside the atmosphere; silo-based, high-acceleration interceptors designed to engage targets within the atmosphere; associated engagement and guidance radars; and a new large radar at Pushkino designed to control ABM engagements. The silo-based launchers may be reloadable." Department of Defense, *Soviet Military Power* (Washington, D.C.: U.S. Government Printing Office, 1984), p. 33.

42. Evidence to support this conjecture can be found in former Soviet Chief of the General Staff Ogarkov's implicit criticism of Soviet leadership for not authorizing sufficient funds to pursue development of weapons based on "new physical principles" as being done in the United States. Ogarkov, *Krasnaya zvezda*, 9 May 1984.

43. Ustinov, *Sluzhim rodine, delu kommunistzma* (Moscow: Voennoe Izdatel'stvo, 1982), pp. 51-53, and Ogarkov, *V'segda gotovnosti*, pp. 58-59.

44. Ogarkov, *V'segda v gotovnosti*, pp. 49-50.

---

## coming . . .

in our May-  
June issue

- AirLand Battle: An Appropriate Doctrine?
  - Educating Military Officers
  - Is a Soviet Bolt from the Blue Impossible?
-



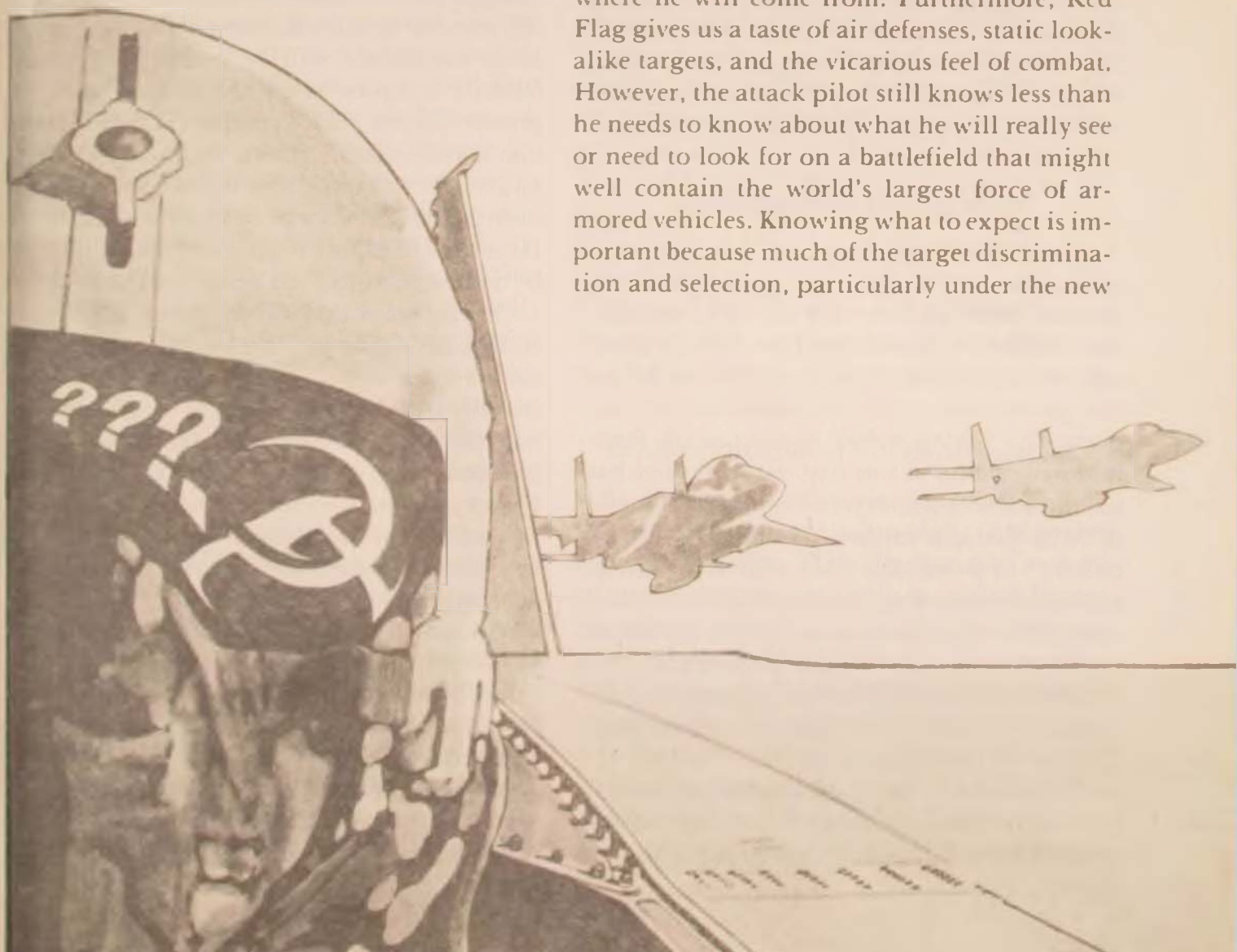
# THE SOVIET OFFENSIVE— AN ATTACK PILOT'S VIEW

LIEUTENANT COLONEL HARRY J. KIELING, JR

**T**HE first few hours, maybe days, of a war in central Europe will be a wildly disorienting experience. Intelligence reports, command and control, forward edge of the battle areas (FEBAs), friendly locations, targets—few of these battle essentials will take the orderly form we see in carefully controlled exercises. The U.S. Air Force attack pilot will be

called on to sort through this confusion and effectively support outnumbered NATO ground forces. The attack pilot must know what to expect. He must know what this future battlefield will look like from the air.

Our tactical air forces have made quantum leaps forward in enhancing training realism in the past few years. The "aggressors" show us how to combat the Soviet fighter pilot in the air. The counterair specialist knows what his enemy will look like, how he will move, and where he will come from. Furthermore, Red Flag gives us a taste of air defenses, static look-alike targets, and the vicarious feel of combat. However, the attack pilot still knows less than he needs to know about what he will really see or need to look for on a battlefield that might well contain the world's largest force of armored vehicles. Knowing what to expect is important because much of the target discrimination and selection, particularly under the new



concept of battlefield interdiction, may be done by the flight leader without the luxury of a forward air controller.

What will this battlefield look like from the air? Let's approach this critical question from a slightly different perspective. Unclassified Soviet literature has been used as the information source to find out how the Soviets see themselves in the attack. The primary reference is *The Offensive*, by Colonel A. A. Sidorenko, a book almost fifteen years old but still highly readable and pertinent. This authoritative insight into the Soviet tactician's mindset provides a different and useful viewpoint for joint and combined force planners.

Reading this literature is useful because the tactics that it describes will not change drastically in the near future. The Soviet soldier is commonly a product of initiative-deadening repetition. How he is trained is how he will fight. What we read in books like Sidorenko's today is what will be seen on the fields of central Europe tomorrow if the "balloon goes up."

### An Armored Armageddon

The Soviet invasion may or may not come with advance warning. How much warning time the West will have is a matter of speculation and beyond the scope of this article. However, a simple formula applies: less warning = less preparation = more confusion (on our part). The Soviets indeed appreciate the time-honored maxim of war that the "offensive has incontestable advantages . . . the main one of them is that the initiative belongs to the attacker."<sup>1</sup> To simplify this military-political philosophy into one sentence: While the United States has an aversion to first strike, the Soviet Union has a war-winning philosophy that emphasizes surprise. Thus, if the political situation precipitates a war, the Soviets are most likely to initiate it.

The Soviet offensive will involve large numbers of men and machines on a huge battlefield.<sup>2</sup> This circumstance will produce the so-

called target-rich environment. One estimate places the number of Soviet and Warsaw Pact tanks facing NATO units in Europe at well over 25,000.<sup>3</sup> Other features of this offensive will be lightning speed, incredible shock effect, and maneuverability. Under nonnuclear conditions, this fully motorized force could advance up to fifty kilometers per day.<sup>4</sup> For the attack pilot flying two, three, or more missions per day, the target area might be very much different on each mission, even though he may be supporting the same unit or flying in the same sector.

What will be the overall impression the attack pilot will have on first seeing the land battle? Probably one of complete sensual overload: he will see war extending from horizon to horizon. Devastatingly concentrated artillery barrages may involve 100 individual guns firing into one square kilometer of battleground.<sup>5</sup> More explosions will be going off deep in friendly territory as enemy artillery engages priority targets, such as artillery batteries, command and control centers, nuclear stockpiles, and reserve troop and tank formations.<sup>6</sup> The air over the battlefield will be filled with aircraft. Hundreds of planes from many countries will be moving toward their designated targets.

One aspect of this air war that will be especially unfamiliar to American airmen will be the waves of Soviet fighter bombers attacking friendly troops and seeking out targets deep in our rear area. One lucrative target these fighter bombers will be attacking is friendly airfields.<sup>7</sup> Under current Soviet doctrine, it is still *unlikely* that these high-performance aircraft will be used much along the immediate line of contact between the ground forces, although Soviet military thought may change in the future. It is likely, however, that attack helicopters from both armies will be heavily engaged along this front line. To add a new twist, these same attack helicopters may be engaging one another or enemy fighters in aerial combat.

For the attack pilot nearing his rendezvous or target, the mission will be to maximize his



killing power—that is, hit where it will hurt the most. To do so, he must be able to make sense out of the chaotic situation that will confront him. This ability is particularly necessary if he has lost radio contact with friendly ground forces because of communications jamming or other enemy activities.

### Targets Close to Friendly Forces

The Soviets call the "front line" or FEBA the "line of combat contact of the troops."<sup>8</sup> This phrase appears to be workable for our use, referring to that point where the ground troops are engaged. The line of contact itself will likely come into existence, given the nature of today's technology, when the forces approach within three kilometers of each other and optically-tracked and wire-guided antitank missiles are exchanged. For the attack aircraft to operate in this arena requires close coordination with the engaged friendly forces. This "close support" has a number of obvious advantages. Exposure to enemy air defense artillery (ADA) will be reduced because run-ins can be over friendly troops. Additionally, enemy air defense artillery weapons systems (ZSU 23-4, SA-8, SA-9, SA-13), accompanying the first echelon of attacking troops, may be partially decimated if NATO ground forces select them as primary targets for their own tanks, attack helicopters, field artillery, and antitank weapons. Destroying this enemy air umbrella will synergistically enhance the tank-killing ability of the air force.

Another, often unquantifiable, advantage of working close to friendlies is psychological. It is an undeniable morale booster for the troops on the ground, fighting for their lives, to have their own planes streaking in low overhead and wreaking destruction on the enemy. For the ground commanders, application of air power along the line of contact may well be the decisive factor in a successful defense.

The disadvantages of operating along this forward line are equally evident. Target dis-

crimination amidst the smoke, dust, and debris of battle will be extremely difficult. The close coordination required with attack helicopters, air defense, and artillery will create special problems, many of which have yet to be solved even in carefully controlled exercises.

Because of the confusion, the possibility is greater that individual targets may be engaged by more than one weapon system (either simultaneously or sequentially). When you are already outnumbered and using weapons as expensive as the tube-launched, optically-tracked, wire-guided antitank missiles and Mavericks, you can't afford to kill a target more than once.

What about number and density of targets? Let's take, for example, a Soviet motorized rifle regiment deployed into a line abreast attack formation. What does regiment mean to an attack pilot looking through a combining glass and gunsight? It might mean 2200 troops, 90-plus armored personnel carriers, 40 tanks, and 8 mobile air defense systems.<sup>9</sup> All of this is concentrated across a sector two to four kilometers wide and five to fifteen kilometers deep. The width of the front would compare to the length of a 10,000-foot runway. Within this sample slice of battlefield, tanks will advance line abreast, with 100 meters between vehicles. Tanks and ZSU 23-4s can and will be firing on the move, and the infantry will be advancing and fighting from within armored carriers.<sup>10</sup>

### Chokepoints and Other Obstacles

As the enemy offensive advances, it will likely encounter chokepoints along its intended invasion corridor. These chokepoints may be created by canalizing terrain or artificially emplaced obstacles like minefields. As the enemy moves through these points, his target mass will become even more concentrated.<sup>11</sup> The attack pilot should be aware of these chokepoints.

In the past, preflight planning concentrated on ingress and egress routes, the design of which rested largely on factors of survivability, fuel, and timing. All of these factors are criti-

cally important, but the attack pilot facing a massive wave of armored vehicles and aggressively trained combat troops may have to think and plan in more detail. To be fully effective, each sortie must inflict an amount of battle damage perhaps never achieved before by air forces. One way the attack pilot can enhance his chances of accomplishing this objective is by knowing the canalizing terrain and chokepoints. Canalizing terrain is nothing more than certain geographical features, such as mountain passes and dry roads through swamps, which force mechanized and armored vehicles into a funnel. Going through such a funnel will slow down and concentrate the advancing vehicles, making them easier prey for air attackers.

Water barriers are a second feature that should catch the eye of the alert preflight planner. While the Soviets have an incredible river-crossing capability, even they recognize the troops' increased vulnerability in crossing a water barrier.<sup>12</sup> Also, tank or troop formations lined up on the bank waiting to cross a stream would make a lucrative target. But what about tanks crossing underwater? What are the tactics or weapons to be used against a submerged tank fording a river? Not an unlikely question, since the current generation of Soviet tanks all have a snorkeling capability.<sup>13</sup>

A third area that an attack pilot should know about is the preplanned "fire trap." A fire trap is a location preselected by friendlies as an opportune defensive position. Selection is based on being able to draw the enemy into the trap and then extracting a heavy toll from him. The attack pilot should be aware of these areas so that his weapons can augment the fire of the ground forces.

A fourth concept that the attack pilot should be familiar with is the company or battalion strongpoint. A strongpoint will be a strategically placed, heavily fortified position. The support and retention of such positions is crucial to the defense. Strongpoints may be towns or hills that are bordered by natural obstacles

and sit astride avenues of approach that the enemy is likely to use. In some important ways, a strongpoint resembles the fire trap. It will be physically located where defensibility and favorable fields of fire will enable the defenders' ability to destroy enemy forces. Attack pilots need to be aware of the character and appearance of strongpoints so that they may also use their lethal weapons against an enemy tied up trying to penetrate or bypass the fortification. Aerial defense of these strongpoints may take on an even more complicated tone and become more crucial if these positions become isolated when a swift enemy advance simply passes by and encircles them.

Mine fields placed at any chokepoint, water obstacle, or fire trap will geometrically enhance the target-killing capability of both the ground forces and the attack aircraft. Timing is critical for optimum results. If the attack aircraft are on station or on a quick-response ground alert, the ground forces can estimate the time the enemy forces will first reach the mine field and the attack aircraft can then plan to arrive on target at that time.

The Soviets, however, are well aware of our predilection for mine field emplacement to create or enhance killing zones. They are prepared to breach the mine fields by placing their lead elements on the forward edge of their own artillery preparation. They envision the first shock troops right behind the bursts of trailing shells.<sup>14</sup> Target discrimination for the attack pilot will be extremely difficult under these conditions.

## The Breakthrough

If the Soviets are successful in smashing through and developing their offensive at the high rates of speed they expect, a unique opportunity may present itself to NATO attack pilots.<sup>15</sup> The Soviets anticipate that as the attack advances rapidly, "the presence of open flanks . . . will be an ordinary phenomenon."<sup>16</sup> Air attacks on these exposed flanks could be as



devastating as professional hunters slaughtering buffalo. Flight paths and run-ins would come over friendly troops, and the exposure risk would be less than that of flying directly into the front-line troops in a meeting engagement or deliberate attack. Striking the exposed flanks would also yield some of the softer and more vulnerable combat service support targets.

### Deeper Targets

Soviet doctrine emphasizes speed and shock power. Maximum speed for tanks and armored vehicles can be obtained by moving in column formation along high-speed avenues of approach.<sup>17</sup> Doctrinally, this formation will deploy into battle formations (basically a line abreast versus column) only to the extent necessary to overcome defensive positions.<sup>18</sup> What this means to the attack pilot is if he can enter the target area through or around the belt of enemy air defenses assigned to the first-echelon regiments and engage these tank columns, the

results should be spectacular—particularly if he times the attack to trap the column in canalizing terrain. If, after a few such devastating raids, the enemy deploys out of column to negate the effectiveness of the air attack, then a secondary benefit is achieved: his rate of advance is slowed.

CLOSE air support of ground troops will be of major importance in the high-intensity battlefield of the next war and must be based on more than the idea of friendly cooperation. The target-rich environment and its attendant confusion requires close coordination in planning defensive positions and analyzing terrain features. Sophistication on the part of the attack pilot in finding and hitting targets is also needed. By understanding his opponent, the attack pilot is more capable of finding the chink in the enemy's armor and delivering a death blow. Such sophistication may well be the decisive factor in a war that begins with us outnumbered.

*Hq AIRSOUTH, Naples, Italy*

#### Notes

1. A. A. Sidorenko, *The Offensive (A Soviet View)* (Washington: Government Printing Office, 1970), p. 1.

2. *Ibid.*, p. vii.

3. "The East-West Conventional Balance in Europe," *Air Force Magazine*, December 1983, p. 128.

4. Department of the Army, *Soviet Army Operations* (Arlington, Virginia: U.S. Army Intelligence Threat Analysis Center, 1978), pp. 5-89.

5. *Ibid.*, pp. 3-96.

6. Sidorenko, p. 125.

7. *Ibid.*, p. 28.

8. *Ibid.*, p. 60.

9. *Soviet Commander's Tactical Planning Worksheet* (Fort Leavenworth, Kansas: U.S. Army Command and General Staff College,

1978), p. 5.

10. *Handbook: Organization and Equipment of the Soviet Army* (Fort Leavenworth, Kansas: Combined Arms Combat Developments Activity, 1978), pp. 5-16.

11. Sidorenko, p. 141.

12. *Ibid.*, p. 183.

13. *Handbook: Organization and Equipment*, pp. 5-31.

14. *Ibid.*, p. 144.

15. Sidorenko, p. 87.

16. *Ibid.*, p. 93.

17. Field Manual 71-100, *Brigade and Division Operations (Armour Mechanized)* (Fort Leavenworth, Kansas: Combined Arms Center, 1977), pp. 4-10.

18. *Ibid.*





# **R** air force review

## COMING OF AGE: XIX TAC'S ROLES DURING THE 1944 DASH ACROSS FRANCE

DR. ALAN F. WILT

**T**HE exploits of Lieutenant General George S. Patton, Jr.'s, Third Army during its rapid push across France are well known.<sup>1</sup> Almost equally famous are those of Brigadier General O. P. Weyland, Jr.'s, XIX Tactical Air Command, whose pilots supported Patton's army throughout its easterly advance.<sup>2</sup> However, in the latter instance, historians have generally focused on XIX TAC's armored support role at the expense of its other tasks, providing only an incomplete picture of Weyland's forces. What actually were XIX TAC's missions and tasks during August and September 1944? What air doctrines did the command employ? How was it organized? What was the extent of its efforts? What problems did it face? Were they overcome? And finally, how do the roles in which XIX TAC was engaged fit into the evolution of tactical air operations?

These questions should not be construed to suggest that land forces were or are any less significant than air forces. Nor do they imply that XIX TAC was any more important than other tactical commands similarly involved on other sectors in the west, such as Major General Elwood "Pete" Quesada's IX TAC to Weyland's north or Brigadier General Gordon P. Saville's XII TAC to his south. But XIX TAC



does provide a meaningful example of the flexibility and diversity for which air forces were being employed late in World War II. Tactical air power had come of age.

**B**EFORE examining XIX TAC's various tasks, readers may find that an outline of the operations undertaken by Patton's forces is helpful toward establishing a frame of reference for the aerial aspects of the campaign. The offensive had already begun when Third Army became operational on 1 August 1944.<sup>1</sup> By then, Third Army divisions were already streaming south through the Avranches Gap, with the goal of cutting off the Brittany Peninsula and then turning west to capture its valuable ports, which could provide a logistical base for the eventual offensive toward Paris and beyond. But on 3 August, General Omar Bradley, 12th Army Group Commander, decided to exploit to the fullest the disarray evident among

the Wehrmacht formations to his east (except near Mortain, where the U.S. First Army was alerted to prepare for a German counteroffensive). He therefore ordered Patton to have his Third Army clear Brittany with only "a minimum of forces" and to concentrate his main effort east and south toward LeMans with the ultimate objective of reaching the Loire and Seine rivers.

The order did not have to be repeated. Leaving VIII Corps to deal with the situation in Brittany, Patton directed XV and XX Corps (soon to be joined by XII Corps) to push southeast as rapidly as possible. Their success was almost immediate. Le Mans fell on the 9th, Angers on the Loire on the 11th, Orléans on the night of the 16th. That same day Patton's easterly thrust was made public for the first time. Even though two XV Corps divisions became involved briefly in the unsuccessful attempt to trap large numbers of German troops east of Falaise, the bulk of Patton's forces had ad-



vanced up to 160 miles in eleven days.

With only a screening force to cover his southerly flank along the Loire, America's most aggressive field commander continued his drive to the east. On 20 August, his Third Army first crossed the upper Seine south of Paris. Five days later, portions of the U.S. First Army and the 2d French Armored Division along with the Resistance liberated Paris. By now, Patton's forces had taken Troyes, south-east of Paris, while German units throughout southern and central France were withdrawing rapidly toward the Reich. Although the French countryside between the Seine and the German border has running through it a series of formidable river barriers, Patton's army seemingly took little notice. XII Corps provided the southern axis of the advance, crossing the Marne River on the 28th and the Meuse on the 31st. That same day, XX Corps followed suit farther north, capturing Verdun in the process.

But then Patton's progress began to slow. His supply lines were drawn to the breaking point. His divisions had no gasoline. Eventually, his forces received some supplies, which enabled them to move forward to the Moselle River and even secure several bridgeheads across it. But while Nancy fell on 15 September, Metz was being stubbornly held. In fact, all along the Moselle—from approximately Thionville through Metz to east of Nancy and Épinal—German troops were no longer retreating. They had turned around to fight, and considerable reinforcements and equipment had arrived to assist them in their defensive effort. Historian Martin Blumenson has pointed out that by mid-September "no one knew it yet, but the pursuit was over."<sup>4</sup> On the 22d, with logistical difficulties having reached crisis proportions and with the Arnhem gamble to jump the Rhine in difficult straits, Eisenhower ordered Third Army to halt offensive operations and to assume a defensive posture. In the meantime, 550 miles to the west, VIII Corps (upgraded to Ninth Army on 5 September) had finally overcome German resistance at Brest after a month-

long siege. Patton's Brittany campaign, as well as his nearly 400-mile dash across France, had come to an end.

THROUGHOUT August and September, XIX TAC supported all of Third Army's operations and more. Its roles included a bewildering number of missions: close air support, battlefield air interdiction, deep interdiction, dive bombing, counterair, reconnaissance, and even leaflet dropping.<sup>5</sup> To be sure, these missions did not represent a radical departure from the past. They had evolved over time and reflected the tactical experiences of British, German, and U.S. air forces. Nevertheless, the missions undertaken by Weyland's groups and others were still important in that they covered almost the entire spectrum of air tasks for which tactical aircraft could then be employed.

XIX TAC's close air support mission took its most concerted, extended, and spectacular form in supporting Patton's armored and motorized infantry columns as they sped across France.<sup>6</sup> The main tactic, armored column cover, had originally been used by U.S. air forces in Italy. However, it was further refined during the French campaign. General Weyland in an interview after the war described the technique as follows:

All during the daylight hours when the ground forces were fighting or advancing, General Patton advanced in parallel columns normally, and always spearheaded by armor. I had liaison officers up in the lead tanks in every one of these columns—an Air Force officer riding the leading tank with a [VHF] radio, so that he could talk with the aircraft. Then I had fighter bombers, which preceded the columns, knowing where they were supposed to go. They would locate enemy opposition, tanks, troops, guns, or obstacles, or tank barriers, or what have you. Let them know, and in most cases [they] knocked out the opposition before the American tanks got there.<sup>7</sup>

In spite of Weyland's exaggeration at the end of the quotation, both air and land power ad-

vocates agreed that armored column cover proved to be quite effective. At first, air commanders thought that they would have difficulty enticing their officers, mostly pilots, to accept ground liaison duty; but these officers actually came to enjoy it, and many volunteered (even competed) for the job.<sup>8</sup> Armored column cover was in reality a reciprocal arrangement. The tank crews and their air support officers pointed out enemy concentrations, and divisional artillery at times gave further assistance by marking targets with smoke. In return, the P-47 and P-51 pilots provided cover for the tanks in one-hour shifts with four aircraft per flight, and four more on ground alert could be called in if necessary.

Weyland and Patton realized that having aircraft attack tactical targets contradicted the generally accepted air force notion that "it was a waste of time to use an airplane to knock out a target that artillery could strike."<sup>9</sup> They defended the procedure as a "time-saver." They acknowledged that although artillery pieces could accomplish the task, by the time the guns had been brought forward, put in place, and ranged in, approximately two hours would be lost. Aircraft had no such constraints. As little as three minutes after being contacted, they could strike the designated target, thereby freeing the armored forces to continue their advance.

While Weyland's air groups concentrated on close air support, they were involved in numerous other missions also. The one used most was battlefield air interdiction in the form of armed reconnaissance. This technique was designed to isolate the battle area by eliminating targets beyond artillery range but still relatively close to the front. It was used by all of the combat squadrons in a variety of roles: to assist the tank columns, to aid Allied ground formations in their attempt to close the Falaise Gap, and to support river crossings south and east of Paris.<sup>10</sup> Its most exceptional use was to protect Patton's exposed southern flank along the Loire River.<sup>11</sup> To be sure, XIX TAC did not perform this role alone.<sup>12</sup> The Army kept the

region under surveillance with occasional small artillery observation planes (usually L-4s) and ground patrols, and the activities of the French Resistance aided security as well. The Allied invasion of southern France on 15 August was also of assistance, in that it put additional pressure on the Germans to withdraw from the area as quickly as possible. In fact, the German units in southwestern France under LXIV Corps were retreating so rapidly that Third Army had little fear that its lines of communication would be severed.<sup>13</sup> And the Americans knew through Ultra, Britain's decryptations of high-level German ciphers, that the Wehrmacht troops (except for those at the major ports) were intent on withdrawing toward eastern France, not on launching an attack against Patton's rear.<sup>14</sup> Still, Army commanders recognized that the situation might change, and hence the need for flank protection.

Despite the help from other quarters, XIX TAC bore the brunt of the operation, using a squadron of night fighters to augment its daytime sorties.<sup>15</sup> The coverage included one flight of fighter-bombers performing armed reconnaissance in the zone north and along the Loire, while fighters undertook tactical reconnaissance south of the river.<sup>16</sup> Since the aircraft on tactical reconnaissance missions had little armament, any enemy activity sighted was dealt with by dispatching heavily armed aircraft to the area. The U.S. pilots became so proficient at this type of combat that on occasion they even forced German marching columns to surrender and shepherded them toward American ground troops.<sup>17</sup>

Although the air commanders did not distinguish between battlefield air interdiction and deep interdiction, they flew the latter nonetheless. Deep interdiction did not, of course, rule out bombing and strafing targets of opportunity, but missions were usually laid on by higher headquarters to strike prearranged targets, such as enemy troop concentrations, roads, rail lines, marshaling yards, bridges, and the like. The focus of their missions gradually





*German armor posed a threat to Allied ground forces that were moving across France during the summer of 1944. However, the Allies found that by using P-47 Thunderbolts along with other fighter-bombers and medium bombers to blast roads, destroy bridges, and strafe fuel trucks in supply columns, they could prevent the panzers from massing for an attack. . . . Luftwaffe aircraft (left) were bloodied in defending the Reich from heavy bomber attacks but were still very much a factor in the fight for France.*

changed as Patton's forces extended east. Because of the ground forces' rapid advance, bridges were not to be destroyed, and rather than trying to stop enemy soldiers and supplies from coming into the area, the goal now was to block their movement out of the region.

Another of XIX TAC's missions, dive bombing, is normally thought of as a tactic, but Weyland's groups considered it a separate mission.<sup>18</sup> It resembled deep interdiction, for both types of missions made use of various aerial bombing techniques and normally attacked similar, prearranged targets. But while deep interdiction was designed to cut off enemy movements either in or out of the combat zone, dive-bombing missions were most often used for static warfare.<sup>19</sup> They were employed, for example, during the unsuccessful September attempt to seize Metz, and their most extensive use was during the siege at Brest.

The results of Brest were not particularly impressive. Even though the Americans knew a good deal about local conditions there through Ultra, Resistance, and reconnaissance sources, it was soon obvious that the defenders—as part of Hitler's "hold on to the ports" strategy—had ample provisions and were determined to hold out.<sup>20</sup> It also became evident that XIX TAC fighters and fighter-bombers assigned to the operation were insufficient to perform effectively all of the tasks they were expected to carry out, particularly in terms of dive bombing.<sup>21</sup> Weyland's P-47s and P-51s simply did not have the bombing power to bring about the desired results. Thus the American commander called on other air formations to assist.<sup>22</sup> Eighth Air Force responded between 11 August and 5 September with four missions in which 983 B-17s dropped 2520 tons of bombs. British Bomber Command made two raids with approximately 220 Lancasters taking part. U.S. IX Bomber Command's B-26s and new A-26s undertook six missions. General Quesada's IX TAC loaned some of its squadrons to XIX TAC—squadrons that flew 839 sorties between 5 and 11 September, when Brest's capture was accorded a

high priority. By the time the last of Germany's beleaguered troops capitulated on the 19th, the Allies had flown more than 3500 Brest-related sorties. The city was in shambles. Its port facilities, for which the operation originally had been undertaken, were so badly damaged (by German demolitions along with Allied bombing and artillery shelling) that the Americans never used it as a major supply entrepôt. Obviously, air power had had an impact on the outcome of the battle but not in the way that had been hoped for.

XIX TAC was also involved in counterair operations, although, because of the Luftwaffe's relative weakness, to a lesser extent than it might have been.<sup>23</sup> Only in critical situations or when they had a numerical advantage did Jagdkorps II's Bf-109s and FW-190s venture out and pose a threat. During the early August Mortain counteroffensive, German fighters and some bombers did support the attack, but they were overwhelmed by the Allies' superior numbers, better aircraft, and experienced pilots. While Quesada's IX TAC led the counterair response, the RAF and XIX TAC's 354th Fighter-Bomber Group of P-51s also lent a hand. At Falaise, the German Air Force again was active, and XIX TAC's fighters performed a variety of defensive and offensive counterair tasks—intercepts, sweeps, combat air patrols, and escorts, including bomber escorts—along with other support missions. Near Paris, U.S. pilots also encountered opposition; but at times several of Weyland's groups reported seeing no enemy aircraft for days at a time.<sup>24</sup> Although the Allies remained aware that the situation might change, Allied aircraft now reigned supreme.

XIX TAC further undertook reconnaissance duties. Most of the sorties were confined to visual reconnaissance, but they included day and night photo missions as well, especially from 10th Photo Group, whose P-51s were stationed in the area. Overall, during the two months, aircraft under Weyland's command flew 2011 reconnaissance sorties, or slightly



more than 9 percent of the 22,233 total sorties flown.<sup>25</sup>

One final mission remains to be mentioned: XIX TAC pilots performed several special air operations in the form of leaflet-dropping sorties.<sup>26</sup> Thus, during August and September, XIX TAC was involved in seven different missions—close air support, battlefield and deep interdiction, dive bombing, counterair, aerial reconnaissance, and special operations. Except for tactical airlift, which was more properly placed under Ninth Air Force, Weyland's groups had engaged in virtually every tactical air mission it was possible to be involved in.<sup>27</sup>

WITH regard to air doctrine, two principles stood out. One was the necessity to foster cooperation and acknowledge coequal status between the air and land components. Both General Patton and General Weyland thoroughly understood this aspect of joint warfare, which had been set down in Field Manual 100-20 in July 1943, and they did everything they could to support it.<sup>28</sup> On 17 August, during the midst of his easterly advance, Patton wrote to General George C. Marshall: "The cooperation between the Third Army and XIX Tactical Air Command . . . has been the finest example of the ground and air working together that I have ever seen."<sup>29</sup> On 7 September, he made the same point to newsmen covering his offensive: "Now I would appreciate it if you all could integrate in your stories the Third Army and the XIX Tactical Air Command because XIX TAC had done a great job for us."<sup>30</sup>

Weyland felt the same way. In an interview after the war, he indicated his esteem for Patton along with their teamwork. "General George S. Patton was the finest field commander I have ever known. . . . Largely because of his prevailing leadership, relations between Third Army and 19th TAC were characterized by complete confidence in the other's abilities in the other [command]."<sup>31</sup>

The other principle that Weyland (with Patton's concurrence) put into practice had become a fundamental feature of tactical air doctrine: centralized control of air power and decentralized execution.<sup>32</sup> The two generals agreed that Patton was to run the ground war, and Weyland would handle the air war. The XIX TAC commander described the process in general as follows:

The decisions were mine as to how I would allocate the air effort. And we had a joint operations center with staff officers [from XIX TAC] and from his [Patton's] forces . . . they would feed in all their inputs. What they wanted and what not. We would try to support him, but we had other chores to do like maintaining air superiority, interdiction to the rear to clobber reserves, ammunition, supplies, and things like that so they wouldn't be used against him, and so forth. He readily agreed to that [principle] and was faithful to it.<sup>33</sup>

While higher headquarters might determine that other high-priority tasks, such as bomber escort and support of critical operations elsewhere, required Weyland to divert some of his aircraft for a limited time, he still made the overall assignments for his area, and his fighter group commanders and their staffs (including army liaison officers) attempted to carry out his directives within the constraints of available fuel, aircraft, and pilots. Meanwhile, constant liaison was maintained up and down the air and army command channels to ensure a realistic allocation of prearranged (within a twenty-four-hour lead time) and immediate requests for air power. Every evening after requests had been received and the pluses and minuses of the day's air effort evaluated, the process (except for night sorties) would begin again for the next day.

IN terms of organization, Weyland's command was responsible to Lieutenant General Hoyt S. Vandenberg's Ninth Air Force, which was, in turn, ultimately under General Eisenhower's European command. XIX TAC,



for its part, was at first divided into two wings with seven groups under them.<sup>34</sup> The wings—the 100th and 303d—were mainly for noncombat flying and coordination purposes, while the groups formed the basis of the combat effort. On 7 August, the number of groups was augmented to nine and remained at that figure (with one exception) for the rest of August and September. The exception was the 363d P-51 Fighter-Bomber Group, which was removed on 4 September to be converted into a reconnaissance group. But the one other P-51 group, the 354th—called the Pioneer Mustang Group because of its “early” formation in late 1943—continued under XIX TAC. The remaining seven—the 36th, 358th, 362d, 371st, 373d, 405th, and 406th—were P-47 Thunderbolt groups

*Lieutenant General Carl A. Spaatz, Lieutenant General George S. Patton, Jr., Lieutenant General Jimmy Doolittle, Lieutenant General Hoyt S. Vandenberg, and Brigadier General O. P. Weyland, Jr., met to coordinate the air war with the ground offensive.*

and became operational between 3 February and 9 May 1944. The groups were further divided into three squadrons each, with approximately sixteen operational aircraft per squadron. Their pilots flew two, three, and at times four missions per day (on good weather days), normally in flights of four, eight, or twelve aircraft.

Although originally designed for other roles, the P-47s and P-51s eventually became exceedingly reliable aircraft.<sup>35</sup> By mid-1944, the ad-



vantages of one seemed to offset the disadvantages of the other. The single-engined P-51D featured outstanding maneuverability and range. Its characteristics—a maximum speed of 437 mph at 25,000 feet, armament of six .50-caliber machine guns and rockets, and a radius of 325 miles (600 miles with two 75-gallon wing tanks)—made it especially suitable for counterair and escort operations. But its inline, liquid-cooled engine and its relatively light weight (10,000 pounds gross) made the aircraft vulnerable to enemy ground fire.

For close air support and dive-bombing missions, the Thunderbolt, or "Jug," proved to be the superior aircraft. Its radial air-cooled engine was less vulnerable to ground fire than the P-51. In addition, the P-47D could reach a top speed of 425 mph at 20,000 feet, was well armed with eight .50-caliber machine guns and two 500-pound general-purpose bombs, possessed a good diving capability, and weighed 17,500 pounds when fully loaded. Its ruggedness was further enhanced by its ease of maintenance and operation. Only its 200-mile radius of action (350 miles with external tanks) could be considered a drawback, but this liability applied only to long-range escort duty. The Thunderbolt, in effect, became Weyland's workhorse during the summer advance.

XIX TAC's personnel strength remained stable and numbered 17,007 officers and enlisted persons on 21 August and 16,727 on 15 September.<sup>36</sup> Each of the combat group's ground and air echelons together were approximately 200 officers and 800 enlisted, while each squadron had approximately 60 officers and 250 enlisted.<sup>37</sup> Replacement pilots were relatively plentiful. Thirty-sixth Fighter Group, for example, received twenty-five new pilots in August while losing nine and gained twenty-nine in September against eight losses. Overall, the command lost 156 pilots from combat and accidents but had 443 replacements to make up for the casualties and transfers.<sup>38</sup> As might be expected, morale was high during the offensive. General Patton spoke for both ground and

air forces when he remarked that "people like to play on a winning team."<sup>39</sup> The 36th Fighter Group history echoed Patton's view: "Morale in the group," it stated, "is excellent and quite possibly can be attributed to our being closer to the enemy, to the outstanding bombing and strafing missions turned in by our pilots, and to the friendliness of the French."<sup>40</sup>



*The success of an offensive is dependent on the lines of supply. Under an umbrella of air cover, American trucks were serviced at temporary stops and kept the ammunition, food, fuel, and medicine flowing to the advancing armies. . . . When the weather cleared after the German counteroffensive in December 1944, the Allies moved to recapture lost ground under the cover of tactical air power. The first tank back into Bastogne (below) was renamed Thunderbolt by its commander, then Lieutenant Colonel Creighton Abrams.*





*P-47 Thunderbolts (left), with their eight machine guns and rugged construction, were well suited for strafing and bombing missions. . . . The lighter and faster P-51 Mustangs (below) were more vulnerable to ground fire but better at aerial combat.*





General Weyland typified the tactical air commander at this point in the war.<sup>41</sup> Square-faced, with an aura of command about him, he had been born in California, raised in Texas, and graduated from Texas A&M in 1923 with a degree in engineering. While working for Western Electric, he became interested in flying and decided to join the Army Air Forces. He received flight training in 1924, became an advanced flying instructor at Kelly Field, Texas, and, among other assignments, commanded an observation (reconnaissance) squadron in Hawaii in the 1930s. In 1938, he attended the Air Corps Tactical School, finishing first in his class. At the time of America's entrance into World War II, he was leading the 16th Pursuit Group in the Canal Zone but was soon transferred to General Arnold's air staff in Washington. He returned to operational command on 4 February 1944 when he became head of XIX Air Support Command (later changed to XIX

TAC, which was in keeping with Army Air Forces leaders' long-range goal of purging the term *air support* from its lexicon). Weyland held that position until the end of the war. After the war, he continued to hold a number of important posts, including commander of Far East Air Forces during the Korean War and of Tactical Air Command between 1954 and 1958. Throughout his thirty-five years of military service (he retired in 1959), he had been most interested in exercising command. When asked what the high points of his career had been, he answered, command. "any command. I just like to run troops, airplanes preferably, in combat. It was more interesting. That is what you get in for in the first place. . . ."<sup>42</sup> Obviously, General Weyland regarded running XIX TAC as one of those "high points."

WHAT then was the extent of XIX TAC's air effort?<sup>43</sup> During the two-month campaign, the total number of sorties flown by the command was 22,233 of 23,306 dispatched, for an abort rate of 4.6 percent. Broken down, the number of sorties for August was 13,167, of which 12,342 were combat sorties (the remainder, reconnaissance). The 12,342 figure was the highest number flown by XIX TAC pilots throughout the war except for March 1945, when 12,427 combat sorties were flown. In September, XIX TAC's total sorties decreased to 8966 (7880 combat sorties). The reasons for the decrease were the loss of one fighter group (the 363d), the temporary dispatch of aircraft to other commands, worse weather (especially at midmonth), and the great distances that fighters had to fly to support Patton's corps in eastern France. Nevertheless, bad-weather days notwithstanding, Weyland's command still averaged 428 sorties per day in August and 299 in September, for an overall average of 364.5 sorties.

The daily average number of aircraft on hand and operational during the period were as follows:



	On Hand	Operational
August	539	439
September	516	427

Aircraft lost in combat were 114 in August but only 60 in September, thereby supporting the usually accepted maxim that close air support, in which pilots were heavily engaged in August, is riskier than dive-bombing and interdiction sorties, which received primary emphasis in September. Although exact figures were not kept as to why the losses occurred, most of them were attributed to anti-aircraft or other ground fire. The total of 174 aircraft lost out of 22,233 sorties for the two months represented a loss rate of only .78 percent.

Claims resulting from bombing, strafing, and aerial combat are always difficult to assess. In August, for example, Weyland's pilots claimed 311 aircraft, 4058 motor vehicles, 466 armored vehicles, 2056 railroad cars, and 246 locomotives destroyed or damaged. Given Germany's limited combat and logistical capabilities in the area at the time, the figures seem inordinately high, but they do suggest that

substantial damage was inflicted on the enemy. On safer ground is the fact that XIX TAC's fighter-bombers dropped 1354 tons of bombs (general-purpose bombs) in August and 201 tons (including some incendiaries) in September for a two-month total of 3369 tons.

**D**ESPITE these impressive statistics, Weyland's forces faced real or potential difficulties in at least ten different yet often related areas: weather, German Luftwaffe activity, intelligence information, requirements of higher headquarters, adequacy of personnel and equipment, types of aircraft, communications, siege warfare, distance of airfields from the front lines, and bomb safety lines.<sup>44</sup> The

*In August 1944, Allied disorganization allowed the German Seventh and Fifth Panzer armies to extricate themselves from a potential trap at the Falaise-Argentan Pocket. Although a goodly part of the German armor got away, approximately 10,000 Germans were killed and 50,000 captured. The "soft-skinned" vehicles were decimated by XIX TAC's fighter-bombers.*





first six concerns actually caused few hardships. Excellent flying weather prevailed until mid-September. Luftwaffe air activity, except for the Mortain and Falaise Gap fighting, had little impact on the Allied advance. Timely intelligence from aerial reconnaissance, French Resistance, and especially Ultra provided a good deal of information about German military measures. XIX TAC carried out with equanimity directives from higher headquarters, including missions ordered outside its normally assigned flying areas. In contrast to the ground forces, personnel, equipment, and gasoline for Weyland's groups remained adequate throughout this period. And as discussed previously, the P-47s and P-51s proved to be the right aircraft in the right proportion to get the job done.

But problems in the other four areas—communications, siege warfare, airfield prox-

imity, and bomb safety lines—proved difficult to resolve. In the case of communications, the command and control system was intricate and included the use of radar and radio contact at all levels to monitor the battle area and a method of bypassing the chain of command if necessary to get critical information to the front or to higher headquarters.<sup>45</sup> Mix-ups were bound to occur. In addition, constant communications were also critical among the various army and air formations and particularly between Patton's and Weyland's headquarters. Continual contact was not always possible, however, even though XIX TAC moved its advanced headquarters (but not the main headquarters) five times during August to remain near Patton and his staff.<sup>46</sup> Only on 10 September, when XIX TAC moved its combat headquarters to a woods west of Châlons-sur-Marne—and fifteen miles from Third Army headquarters—were "the communications difficulties, which had plagued the ground-air team during August and early September" remedied.<sup>47</sup>

*The P-47s and P-51s caused such devastation along the roads of France that bulldozers had to be used to shove the hulks aside to make way for the advancing Allied columns.*



Siege warfare presented a different type of problem. Historians have criticized the sieges at both Metz and Brest as strategic mistakes—the Metz operation because of possible American advances in less well-defended sectors, the Brest campaign because of the “need for ports syndrome” and because U.S. commanders wanted their forces to appear invincible.<sup>48</sup> As related to XIX TAC, both undertakings made it apparent that fighters and fighter-bombers alone, no matter how well suited for armed reconnaissance, patrol, and other siege warfare tasks, had insufficient firepower to bring about all of the sought-after results.

Perhaps even more serious was XIX TAC's difficulty in keeping up with Patton's armored and motorized troops, which soon advanced beyond the range of Weyland's Normandy-based fighters. The longer range necessitated refueling and rearming stops at forward bases nearer the target areas and, when possible, frequent shifts from airfield to airfield—many of which had to be constructed from scratch. During August and September, eight groups moved twice, while another, the 354th, moved three times—a total of nineteen moves.<sup>49</sup>

Conditions at the various sites ranged from primitive to relatively luxurious. Personnel at the 36th Fighter Group's base (A-35) near Le Mans

lived in tents, frame buildings, cement block houses, “packing box” shanties and in modern stucco houses of “Pink City.” “Pink City” was a large group of houses, built under German direction, in the suburbs of Le Mans and but a 15-minute walk from the field. Group Headquarters set up a snack bar which served coffee and doughnuts and once steak sandwiches, and everyone agreed that A-35 was an improvement over the field at Brucheville [in Normandy].<sup>50</sup>

In September, the 36th was relocated to a new base (A-76) at Condé-sur-Marne. Compared to Le Mans, it was described as a wilderness in which “everyone went under canvas” because of the rain and mud. At another base (A-64) near St. Dizier, the 405th moved into a recently evacuated airfield where the “Germans had in-

tended to destroy the runway, but the Resistance had cut the wires before the runway was to be destroyed by bombs [demolition charges].”<sup>51</sup> The new tenants also captured some Luftwaffe supplies and enjoyed the friendly surroundings. Other landing strips were laid out in such diverse settings as an apple orchard with a 3600-foot runway and, more commonly, on farm fields with a 5000-foot grass or tarpaper and square-mesh runway.<sup>52</sup>

The movements were seldom easy to carry out. They usually consisted of several echelons and were made over long distances (in one case, 300 miles) by motor convoy, with C-47s' rendering assistance. With all of this activity, confusion, especially in regard to aircraft refueling, could not always be avoided. In fact, it is perhaps surprising that XIX TAC accomplished as much as it did.

A final problem—bomb safety lines—also caused difficulties. Violations of “bomb lines,” as they were often called, involved more than friendly aircraft attacks on friendly troops; they also included friendly ground units engaging Allied planes.

There is no doubt that Weyland and his staff considered the problem a major one. In part, their concern reflected the rash of incidents that had already taken place prior to the late-July breakout. On the 24th and 25th, Eighth Air Force B-17s carpet-bombed ground troops, causing nearly 900 U.S. casualties and considerable resentment, as the official historian put it, “that the air force ‘had done it again.’”<sup>53</sup> On the other hand, a report after the war recorded twenty-five violations between 22 June and 25 July in which American antiaircraft gunners fired at Allied aircraft.<sup>54</sup> In one of these engagements, “the pilot repeatedly attacked our own forces with the unfortunate result that he was finally shot down and killed.”

Another reason for Weyland's anxiety was that air missions undertaken against fluid lines always create bomb safety line difficulties. In fact, incidents during the Falaise fighting (especially on 15 August) led the Allies to restrict



and eventually call off air activity in that area.<sup>55</sup> Even in relatively uncongested areas, poor visibility and faulty recognition resulted in occasional violations, as occurred on 22 August at Le Mans when American antiaircraft gunners shot down a friendly aircraft, killing the pilot and two passengers.<sup>56</sup>

U.S. commanders met the general problem by insisting on additional precautions and increased awareness.<sup>57</sup> Maintenance teams were to make sure that white stars were painted on top of motor vehicles and drivers furnished with bright red and yellow panels. The air leaders cautioned the pilots not to fire unless they could definitely identify their targets. Higher headquarters was to be notified promptly of possible violations. Apparently these limited measures brought results, for the number of incidents reported declined from August to September. While bomb line problems persisted, the improvement decreased considerably their debilitating effect on morale.

Thus, of the ten potential problem areas, six did not unduly harm XIX TAC's air effort, but the other four caused continual concern. In most instances, the confusion in communications, siege warfare, aircraft basing, and bomb lines was alleviated, but its alleviation was less the result of specific solutions than it was of a particular phase of the campaign having come to an end. The problems at Brest, for example, ended when Germany's fortress defenders finally surrendered. The bomb line difficulties at Falaise were never actually overcome. Problems in communications and aircraft distances from the front remained until the halt of Patton's offensive ironically helped recoup the air situation. In all fairness, these troubles were not peculiar to XIX TAC but seemed endemic to tactical air warfare in general. What they show is that success is seldom easily achieved.

**G**ENERAL William "Billy" Mitchell wrote of the air objectives before the 1918 St. Mihiel offensive:

We had three tasks to accomplish: one, to provide accurate information for the infantry and adjustment of fire for the artillery of the ground troops; second, to hold off the enemy air forces from interfering with either our air or ground troops; and third, to bomb the back areas so as to stop the supplies from the enemy and hold up any movement along the roads.<sup>58</sup>

These three missions—reconnaissance, counterair, and interdiction—formed the basis of early tactical air thinking. As aircraft came to possess greater speed, durability, mobility, and firepower, other missions, including close air support and dive bombing (for other than interdiction), became integral parts of an expanded list. During World War II, the list was consolidated and the items given priorities. First priority was "to gain air superiority;" second, "to isolate the battlefield;" and third, "to render direct support to ground forces."<sup>59</sup>

But during Patton's dash across France, the priorities were altered. A report written in 1945 made the switch clear: "First priority was cover of the armored units," rather than air superiority and interdiction.<sup>60</sup> While the percentage of XIX TAC close air support sorties may not be known, it certainly exceeded 15 percent, the figure usually given for the proportion of close air support to total tactical air effort.<sup>61</sup>

Does this emphasis on close air support mean that air superiority and interdiction were abandoned? Not at all. It merely means that at this point close air support received top priority, interdiction was not considered as vital because of the fast-moving ground forces, and air superiority had already been attained before the offensive began.<sup>62</sup> Yet the situation was subject to change, as happened at Falaise and Brest and along the Moselle; and other missions then became paramount. The problem was that the air leaders should not have established unalterable priorities for tactical air missions. They should have realized that what was supposedly incontrovertible in theory might have to be altered in practice.

XIX TAC had shown that the main benefits of tactical air were its diversity and flexibility.

During August and September 1944, Weyland's groups undertook a variety of missions and achieved reasonable success except in siege operations where heavy, sustained bombing was required. They further displayed great flexibility in that they changed missions rapidly as new critical combat situations arose. General Weyland's comment that "World War II proved tactical air to be a flexible and decisive instrument of war" is overstated in terms of its decisiveness but not its flexibility.<sup>63</sup>

WHILE early air proponents had extolled the unique and thought-to-be decisive role of strategic bombing, tactical air continued to fulfill significant roles during the Second World War. To be sure, tactical air was often employed in conjunction with land and sea forces and other air components, but it could not be left out of the air equation. XIX TAC played an important part in that equation.

Iowa State University

#### Notes

1. See, among others, Martin Blumenson, *Breakout and Pursuit (United States Army in World War II: The European Theater of Operations, Vol. 5)* (Washington: GPO, 1961); Hugh M. Cole, *The Lorraine Campaign (United States Army in World War II: The European Theater of Operations, Vol. 1)* (Washington: GPO, 1950); Russell F. Weigley, *Eisenhower's Lieutenants: The Campaign of France and Germany, 1944-1945* (Bloomington: Indiana University Press, 1981); and Ladislav Farago, *Patton: Ordeal and Triumph* (New York: Oblensky, 1963).

2. *The Army Air Forces in World War II, Vol. 3: Europe—Argument to V-E Day (January 1944 to May 1945)* edited by Wesley F. Craven and James L. Cate (Chicago: University of Chicago Press, 1951); Hq Army Air Forces (AAF), "Air-Ground Teamwork on the Western Front: The Role of the XIX Tactical Air Command during August 1944; An Interim Report," n.d., United States Air Force Historical Research Center (USAFHRC), pp. 104-05.

3. Blumenson, op. cit.; Cole, op. cit.; and Hq XIX Tactical Air Command, "A Report on the Combat Operations of the XIX Tactical Air Command," USAFHRC: 537.04E, 1945.

4. Blumenson, p. 696.

5. XIX Tactical Air Command, "History of XIX Tactical Air Command, 1 Jul 44-28 Feb 45, Part III: Operations Narrative," USAFHRC: 537.01 (1 July 1944-28 February 1945, Part II). Current USAF tactical air missions and tasks are depicted in TACM 2-1, 15 April 1978.

6. Hq AAF, op. cit.

7. General O. P. Weyland, "Flight Interview, June 1960," USAFHRC: K146.34-104.

8. General O. P. Weyland, "Interview, Nov 1974," pp. 145-46, USAFHRC: K239.0512-813.

9. *Ibid.*, p. 77.

10. Hq AAF, "Air-Ground Teamwork," pp. 19-21; and Craven and Cate, pp. 256-74.

11. *Ibid.*, 265-66.

12. Blumenson, pp. 567-68.

13. Armeegruppe G, "Kriegstagebuch," 2.9.44, U.S. National Archives Microcopy T311, Roll 140, Frames 7185258-7185260.

14. XL 6753, 171412Z 8 44, Public Record Office DEFE 3 121; XL 7854, 251423Z 8 44, PRO DEFE 3 125; and XL 8390, 290722Z 8 44, PRO DEFE 3 127.

15. Martin Blumenson, "The Many Faces of George S. Patton, Jr.," Harmon Memorial Lecture No. 14 (Colorado Springs: USAF Academy, 1972), p. 22.

16. XIX TAC, "Report," p. 51.

17. This point has become confused over the years. On occasion, as near Carrouges on 11 August, German soldiers waved white flags and were then led by U.S. aircraft to American lines to surrender.

But the largest single catch of 19,600 (mostly noncombatants) did not surrender to American flyers, but to U.S. ground troops on 10 September. Nevertheless, the harrying tactics of American fighter-bombers and the French Resistance had a good deal to do with German Major General Elster's decision to capitulate (Blumenson, *Breakout and Pursuit*, pp. 654-55; and Craven and Cate, pp. 255, 265-66).

18. 354th Fighter Group, "Operational Reports, Aug-Sep 1944," USAFHRC: GP-354-SU-OP-S(FI), August-September 1944; 405th Fighter Group, "Group History, Aug 1944," USAFHRC: GP-405-HI(FTR-BOMB), August 1944; and 405th Fighter Group, "Group History, Sep 1944," USAFHRC: GP-405-HI(FTR), September 1944.

19. Cole, pp. 151-57; and Blumenson, *Breakout and Pursuit*, pp. 653-55.

20. Ralph Bennett, *Ultra in the West: The Normandy Campaign of 1944-45* (London: Hutchinson, 1979), pp. 154-55. Among the many Ultra intercepts dealing with Brest, see XL 6925, 181401Z 8 44, PRO DEFE 3 121; XL 8106, 270415Z 8 44, PRO DEFE 3 126; and XL 8603, 301848Z 8 44, PRO DEFE 3 128.

21. XIX TAC, "Report," pp. 55-56. The Army Air Forces never had a true dive bomber like the Navy or the Germans (who had the Stuka).

22. Craven and Cate, pp. 263-65; Eighth Air Force, "Bomb List, Aug 1943-Oct 1944," USAFHRC: 520.208-7, August 1943-October 1944; Royal Air Force, "RAF Operational Statistics, 28 July-30 Sept 1944," USAFHRC: 533.308.2, July-September 1944; "Tactical Support—Brest—26 Aug 1944," USAFHRC: 520.3233-71; "Tactical Support—Brest—5 Sep 1944," USAFHRC: 520.3233-69; and XIX TAC, "Operations File, 1-15 Sep 44," USAFHRC: 537.306A, 1-15 September 1944.

23. Williamson Murray, *Strategy for Defeat, The Luftwaffe 1933-1945* (Maxwell AFB, Alabama: Air University Press, 1983), p. 288; and Craven and Cate, pp. 247-56.

24. Hq AAF, "Air-Ground Teamwork," p. 10; and XIX TAC, "History of XIX Tactical Air Command, Part II."

25. XIX Tactical Air Command, "Statistical Summary of XIX Tactical Air Command," n.d., USAFHRC: 537.01, Appendix N.

26. 354th Fighter Group, "Operational Reports, Aug-Sep 1944."

27. Ninth Air Force, "Weekly Summary of Ninth Air Force Operations," USAFHRC: 533.508 (August 1944-March 1945).

28. Weyland, "Interview, Nov 1974," p. 76; and William A. Jacobs, "Tactical Air Doctrine and AAF Air Support in the European Theater, 1944-1945," *Aerospace Historian*, March 1980, p. 39.

29. Martin Blumenson, editor, *The Patton Papers, Vol. II: 1940-1945* (Boston: Houghton Mifflin, 1971), p. 517.

30. *Ibid.*, p. 539.

31. General O. P. Weyland, "Interview," n.d., 23-24, USAFHRC: K239.0512-798.



32. Jacobs, p. 35.
33. Weyland, "Interview, Nov 1974," p. 76.
34. Thirty-Sixth Fighter Group, "Operational Summaries, 1 Aug-30 Sep 1944," USAFHRC GP-36-SU-OP-S, 1 August 1930-September 1944; XIX TAC, "History of Tactical Air Command, Part II"; XIX TAC, "History of XIX Tactical Air Command, 1 Jul 44-28 Feb 45," USAFHRC 537.01, Appendix VI; and Craven and Cate, p. 124.
35. XIX TAC, "Report," p. 5; XIX TAC, "History of XIX Tactical Air Command, 1 Jul 44-28 Feb 45," Appendix VI; and Lloyd S. Jones, *U.S. Fighters* (Fall Brook, California: Aero, 1975), pp. 113-17, 127-30.
36. Ninth Air Force, "Weekly Summary."
37. Among others, see 358th Fighter Group, "Unit History, Sep 1944," USAFHRC GP-358HI(FI), September 1944; 354th Fighter Group, "Operational Reports, Aug-Sep 1944," and 36th Fighter Group, "Unit History, Aug-Sep 1944," USAFHRC GP-36-HI.
38. XIX TAC, "Statistical Summary."
39. Blumenson, *The Patton Papers*, p. 511.
40. 36th Fighter Group, "Unit History."
41. Weyland, "Interview, Nov 1974" and "Flight Interview, June 1960"; and General Otto P. Weyland, Jr., "Summary of Air Force Experiences" (motion picture), June 1965, USAF-49690(U).
42. Weyland, "Interview, Nov 1974," p. 263.
43. Figures for XIX TAC are taken from XIX TAC, "Statistical Summary"; XIX TAC, "History of XIX Tactical Air Command, Part II"; XIX TAC, "History of XIX Tactical Air Command," Appendix VI; Hq AAF, "Air-Ground Teamwork," pp. 27-43; XIX Tactical Air Command, "Morning Summary for Month of August 1944," USAFHRC 537.306A, August 1944; XIX TAC, "Operations File, 1-15 Sep 44"; and XIX TAC, "Operations File, 16-30 Sep 44," USAFHRC 537.306A, 16-30 September 1944.
44. A number of these factors are identified in XIX TAC, "Report," pp. 52-53.
45. Jacobs, p. 43.
46. Hq AAF, "Air-Ground Teamwork," p. 1.
47. XIX TAC, "History of XIX Tactical Air Command, Part II."
48. Murray, p. 289; and Weigley, pp. 285-86.
49. See XIX TAC, "History of XIX Tactical Air Command, Part II," and the pertinent units' histories of the 36th, 354th, 362d, 363d, 371st, 373d, 405th, and 406th fighter groups at USAFHRC.
50. 36th Fighter Group, "Unit History, Aug-Sep 1944."
51. 405th Fighter Group, "Group History, Sep 1944."
52. 358th Fighter Group, "Unit History, Aug 1944," USAFHRC GP-358-HI(FI), August 1944, and 405th Fighter Group, "Group History, Aug 1944."
53. Blumenson, *Breakout and Pursuit*, pp. 234-36.
54. AEF S, S22637, "Attacks on Friendly Aircraft by Ground and Naval Forces," USAFHRC, SHAEF Film 187, Frame 14450.
55. Craven and Cate, pp. 253-55.
56. AEF S, "Attacks on Friendly Aircraft," Frame 14411.
57. Hq AAF, "Air-Ground Teamwork," p. 8; XIX TAC, "Morning Summary"; and Craven and Cate, p. 255.
58. William Mitchell, *Memoirs of World War I: From Start to Finish of Our Greatest War* (New York: Random House, 1960), p. 240.
59. War Department, *Field Manual 100-20: Command and Employment of Air Power* (21 July 1943), USAFHRC 170.121100-20.
60. XIX TAC, "Report," p. 52.
61. Robert Frank Futrell, *Ideas, Concepts, Doctrine: A History of Basic Thinking in the United States Air Force 1907-1964* (Maxwell AFB, Alabama: Air University, 1971), p. 91.
62. Murray, p. 279.
63. Weyland, "Interview, June 1960," p. 20.

Any kind of war short of jihad was, is, and will be unpopular with the [American] people. Because such wars are fought with legions, and Americans, even when they are proud of them, do not like their legions. They do not like to serve in them, nor even to allow them to be what they must.

For legions have no ideological or spiritual home in the liberal society. The liberal society has no use or need for legions—as its prophets have long proclaimed.

Except that in this world there are tigers.

T. R. Fehrenbach, *This Kind of War*, p. 455



## IRA C. EAKER ESSAY COMPETITION

Air University is pleased to announce the fifth annual Ira C. Eaker Essay Competition. The objectives of this competition are to encourage the development and open discussion of innovative air power ideas and concepts in a dynamic and interactive forum, much as General Eaker and his colleagues approached the challenges in developing air power in the '30s and '40s. *Air University Review* is proud to be a part of this very significant competition honoring the achievements of General Ira C. Eaker and to memorialize the indomitable martial spirit of General Eaker and his colleagues.

Topic areas for the essay competition are military strategy and tactics, doctrine, professionalism, ethics and values, esprit de corps, or any combination thereof.

### ENTRY RULES

—Essays must be *original* and *specifically* written for the competition. Only one entry per person may be submitted.

—Entries must be a minimum of 2000 words and a maximum of 4000 words.

—Essays must be typewritten, double-spaced, and on standard-size paper.

—The competition is open to active-duty members of the regular Air Force, Air Force Reserve, and Air National Guard; Air Force Academy and AFROTC cadets; and Civil Air Patrol members. Competition judges, *Air University Review* staff members, and cash-award winners of the last annual competition are ineligible for cash awards.

—A separate coversheet should include the essay title, author's name, rank, duty/home addresses and duty/home phone numbers. The author's name must not appear on the essay itself. The title should be repeated at the head of the first page of the essay.

—Send entries to: Editor, *Air University Review*, Building 1211, Maxwell AFB AL 36112-5511. All essays must be received or postmarked not later than 1 June 1985.

—Essays are submitted with the understanding that first-publication rights belong to the *Air University Review*.

### ENTRIES NOT IN COMPLIANCE WITH RULES WILL BE DISQUALIFIED.

First-, second-, and third-prize medallions will be awarded, as well as \$2000, \$1000, and \$500 United States Savings Bonds, respectively. Distinguished Honorable Mention and Honorable Mention certificates will also be awarded. Winning essays will be published in the *Review*.

The Ira C. Eaker Essay Competition is funded by a permanent grant from the Arthur G. B. Metcalf Foundation through the United States Strategic Institute, Washington, D.C.



# R commentary

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

## ON AIR FORCE READING, WRITING, AND POLICY REVIEW

COMMENTS BY

SECOND LIEUTENANT MICHAEL J. REED

I WAS both pleased and dismayed to find in the November-December 1984 issue of *Air University Review* two articles with which I wholeheartedly agreed—pleased because I shared the authors' views, and dismayed because they were both written by people from outside the "mainstream" of U.S. Air Force life.

AFROTC Cadet Kevin Shannahan's "Why Am I Here? Military History and the Professional Officer" (pp. 88-89) and William S. Lind's "Reading, Writing, and Policy Review" (pp. 66-70) made some excellent points on the U.S. Air Force's expectations of our professionalism. We have reached the point of paralleling the French Army described by Samuel P. Huntington: "In France before the Franco-Prussian War professional and intellectually inclined officers were viewed with suspicion."<sup>1</sup>

On an installation dominated by scientists and engineers, of which I am one, I have seen the total lack of interest in our heritage. Officers are "staying away in droves" from the Project Warrior bookshelves in our library. People point out Project Warrior's low-key approach as the cause, but I think that it is merely a

symptom. The basis for the apathy is, as Cadet Shannahan points out, a diluted first contact with Air Force history.

I remember well the study material we had at Officer Training School. It was treated with disdain, probably more than it deserved, because of its matter-of-fact approach. It was made up, I'm sure, with the same basic tales as the material used in ROTC and the U.S. Air Force Academy, material that glorifies our strategic heritage and the same familiar names: Mitchell, Arnold, Spaatz, and Eaker.

These men dedicated their lives to the concept of an independent Air Force and made significant contributions. But what about Generals Elwood "Pete" Quesada, Claire L. Chennault, and Benjamin W. Chidlaw? These men have been left out of our "textbooks" because they didn't fit the mold of Strategic Doctrine, the Air Force's sacred cow.

Instead, we have stories about the *Question Mark* flight (which was not, contrary to popular belief, the first to demonstrate aerial refueling)<sup>2</sup> and the missions of the Eighth Air Force. This glorification gets tedious to young offi-

cers making their first contact with our history. Why not also tell the stories of how Quesada's IX TAC developed close air support or how General O. P. Weyland's XIX TAC protected General George Patton's flank on his famous "end runs"? What about Chennault's arguments with contemporaries over pursuit versus bomber? Why not include material on General Chidlaw's work as Arnold's chief of technology development? With a little initiative, we might promote an interest in Air Force history. Right now, most new officers think our only history is that made by the bomber forces of World War II.

This carries over into the writing we see in the *Review*. Lind mentioned a letter he received from a former staff member of the *Review*:

The Air Force is such a difficult place to surface new ideas with a great deal of opposition to the discussion of any issue that is controversial or which may run counter to current policy and doctrine. (p. 69)

"Current policy and doctrine" is strategic deterrence. We therefore find articles in the *Review* about ballistic missile defense, strategic arms limitation, and nuclear weapons policy.

#### Notes

1. Samuel P. Huntington, *The Soldier and the State: The Theory and Politics of Civil-Military Relations*, 7th printing, 1981 (1957) (Cambridge, Massachusetts: Belknap Press), p. 52.

2. Five years prior to the *Question Mark* flight, Lieutenant John P. Richter and Captain Lowell H. Smith flew more than thirty-

Are all of our writers stuck on this same track? No, but they seem to dominate. If we end up in a nuclear war, what tactics will we employ? What can we learn from the past about the use of strategic nuclear weapons? If we have a nuclear war, the choice lies not with the professional officer but with the President.

A study of the use of conventional forces would be more appropriate. If the effort was made to include a more diverse history in our commissioning sources, the interest generated might spill over into the writing submitted to the *Review*. A more diverse menu might well stimulate more reading. I was not really surprised to read in Lind's article that less than 2 percent of the copies printed are actually read thoroughly. While I was reading his article, someone asked me, "You don't really read that, do you?"

Yes, I do. And I encourage others in my office to do so. I also encourage them to write for the *Review*, as I have done. If censorship is alive in the policy review procedure, it can be changed only by increased interest and activity in areas outside current policy and doctrine limits.

Lynchburg, Tennessee

seven hours, refueling in flight.

Lieutenant Reed is assigned to the Arnold Engineering Development Center, Arnold AFS, Tennessee.

#### COMMENTS BY MAJOR GENERAL JAMES P. MCCARTHY

AFTER reading the November-December 1984 issue of *Air University Review*, I find that I have strong disagreement with one of the con-

tributors. In the article titled "Reading, Writing, and Policy Review," William S. Lind criticizes the Air Force officer corps for being in-



Intellectually moribund and accuses the Air Force, in general, of censorship. Let me tell you that neither assertion is accurate.

Regarding his first criticism, the number of officers with advanced degrees and professional military education (PME) belie the implications. Practically all U.S. Air Force line officers have a baccalaureate degree or higher. Of these, approximately 40 percent have master's degrees or higher. Of the approximately 105,000 Air Force officers, more than 23,000 have completed Squadron Officer School (SOS); more than 30,000 have completed both an intermediate service school, such as Air Command and Staff College and SOS; and more than 10,000 have completed a senior service school, such as Air War College, in addition to the other two levels of PME. These courses of study require reading, analysis, and writing. One who is intellectually moribund or sluggish would not be able to compete in such areas.

Looking at military issues, he used the example of differing fighter design schools. I commend him for being so aware of this issue, but to imply that the Air Force is not writing, talking, and thinking about it and similar issues is simply not correct. Consider the article in the May-June 1983 issue of *Air University Review* titled "Air Force Fighters: Simple or Complex?" in which the author, Major (now Lieutenant Colonel) Herbert W. Johnson, analyzes the rationale for sophisticated fighters versus simple fighters. (pp. 24-35) If you will only check the Air Command and Staff College curriculum, you will see that fighter design is a vital part of the school's curriculum. Here at Strategic Air Command Headquarters, to foster thought on similar strategic issues, we have the Long Range Issues Team made up of action officers from across the staff, which provides a forum for freewheeling thought and discussions. Moreover, in my day-to-day work,

I do not see an officer corps that is stifled.

As for censorship, the U.S. Air Force does have a security and review process that is prudent and not a form of censorship in a pejorative sense. We who have been entrusted with the security of this great nation have a serious responsibility to ensure that classified information is properly controlled for security reasons at all times. As for policy, we should use what is printed in an officially sanctioned Air Force publication. To print articles that are the result of faulty research and are full of nothing but hearsay would do little to contribute to knowledge and could be misinterpreted by those not familiar with the subject area.

As for his criticism of Air Force officers being in the "how-to-do-it" mode, let me assure you that they are doing it—studying, training, flying, repairing, and sitting alert in defense of our country, among a myriad of other tasks. They are not *just* thinking or talking about doing; they are acting, causing action, and in the midst of action. Even with this activity, they are still working on those academic degrees and professional military school diplomas.

As you are aware, the Air Force has the concept of the "whole person," a person with a full range of attributes; for example, job knowledge, communication capability (both oral and written), leadership, initiative, adaptability to stress, sensitivity to the needs of fellow human beings, integrity, flexibility, and creativity. Underpinning these attributes is a basic requirement for professional knowledge and dedication to duty. If given my choice of those to lead in battle or to be my son's or daughter's leader in battle, I would take today's "average" Air Force officer every time.

*Offutt AFB, Nebraska*

General McCarthy is Deputy Chief of Staff Plans at Hq SAC.

COMMENTS BY  
LIEUTENANT COLONEL JOE C. HENDERSON

WILLIAM S. LIND'S article, "Reading, Writing, and Policy Review," in the November-December 1984 issue of *AU Review* particularly hit the nail on the head. In my opinion, there are hundreds of "in the closet" authors in the U.S. Air Force who are quite ready to publish if the "administrivia" details necessary to publish were lessened. The desire to publish also extends to presentation of various professional papers at symposia conducted everywhere.

The bureauratic process of clearing some-

thing just is not worth the hassle. By the time clearance is obtained, it is too late to present your idea anywhere.

I suspect that the reason why we see repeat authors in the *Review* is that they have mastered the intricacies of waffling. How about something on tips for the author?

Kelly AFB, Texas

Colonel Henderson is Chief, Country Managers Branch, Directorate of Materiel Management, Hq San Antonio Air Logistics Center (AFLC).

COMMENTS BY  
CAPTAIN ROGER C. BURK

I WOULD like to expand on Lieutenant Colonel Timothy E. Kline's commentary in the November-December 1984 issue of *Air University Review*.<sup>\*</sup> Kline remarked that there is more freedom of debate in the *Marine Corps Gazette* than in the *Review*. I have read both the *Review* and the U.S. Naval Institute *Proceedings* regularly for several years, and I would like to add that the latter also compares very favorably with the Air Force publication.

Some of the differences are more or less superficial: the *Proceedings* is larger, has more pictures (some in color), and carries advertising. The *Air University Review* simply looks like a dull academic journal. However, I also find a big difference when I compare the contents of the two magazines. To begin with, the *Proceedings* has more variety. The January

1985 *Proceedings* has major articles on such diverse topics as the Iran-Iraq War, officer training, the Soviet Black Sea Fleet, and the employment of Tomahawk tactical nuclear missiles. There are special departments for historical reminiscences and for leadership topics and a Professional Notes section. In contrast, four of the six major articles in the November-December 1984 *Review* are on strategic forces, a topic that takes up too much of the *Review*. I also find that the quality of writing is generally better in the *Proceedings*. I have read many articles in the *Review* that were poorly written, dull, abstract to the point of meaninglessness, or simply repetitive on common arguments for stronger national defense, tediously preaching to the converted. I thought that the best-written article in the last *Review* was the short one by William S. Lind complaining that the U.S. Air Force lacks intellectual life. It is certainly true that there is a much more vigorous debate of important issues in the *Proceedings*, which

<sup>\*</sup>Lieutenant Colonel Timothy E. Kline, "On Seeking a Forum for the Mitchells," *Air University Review*, November-December 1984, p. 90.



frequently prints articles urging changes in U.S. Navy policy. Important topics are discussed for months or years afterward: this month's issue printed eighteen letters to the editor. The last *Air University Review* had one.

Both Kline and Lind complained of mental ossification in the Air Force. I believe that a major contributor to this is our lack of an independent professional journal. The *Air University Review* is a government publication, and I am sure that that inhibits editorial freedom. The *Proceedings* is published by the U.S. Naval Institute, a nongovernment professional organization whose voting membership is restricted to U.S. naval officers (active, Reserve, or retired). Our service has the Air Force Asso-

ciation (AFA), but its membership is not so restricted. The AFA plays the role of a booster organization more than that of a professional one. The AFA's *Air Force Magazine* has articles describing Air Force activities and supporting Air Force positions, but it is not a forum for professional debate. The U.S. Air Force needs an independent professional organization whose major purpose is to encourage, develop, and publish fresh ideas on professional topics.

Wright-Patterson AFB, Ohio

Captain Burk is presently a student at the School of Engineering, Air Force Institute of Technology, Wright-Patterson AFB.

#### COMMENTS BY MAJOR WILLIAM J. GORMAN, JR.

PROFESSOR Lind's article, "Reading, Writing, and Policy Review," in your November-December 1984 issue, has succeeded at least in provoking this occasional *Review* reader to take up a stubby pencil. Several thoughts move me to write.

First, I believe that Lind has perhaps chosen the wrong issue (fighter design) to illustrate his point. The "current-approach" school will probably continue to prevail for the foreseeable future, not because of a lack of fundamental thought but because it provides commanders and fighter aircrews with the widest possible range of options when they are risking their lives (and their nation's future) in potential or actual combat situations. Tilting very far toward the "missileer" or "lightweight-fighter" school for designing a top-line air-superiority machine would, in my opinion, dangerously narrow those options. For instance, during times of heightened international tensions, it may be necessary (even with greatly improved

identification, friend, foe, or neutral systems) to go into visual range to see not only *who* those airplanes belong to (F-4s and F-14s now belong to foes, while MiGs now belong to friends) but also *what*, pray tell, they are doing—and then possibly to engage at short range; a "missileer" would be at some disadvantage here. On the other hand, I, for one, would greatly dislike flying a "lightweight fighter" toward a Foxhound or any other new-generation Soviet fighter, for we have no guarantee that *they* will not shoot beyond visual range (BVR); to count on a passive radar-homing missile to keep the bad guys from shooting BVR overlooks the possibility (not beyond the technical capabilities of both the United States and the Soviet Union) of developing a ground- or AWACS-based system for cueing a fighter's radar-guided missiles without needing the fighter's radar to emanate until just prior to launch, leaving insufficient time for an effective riposte by the lightweight fight-







to describe someone who could solve the unique technical problems facing our military ancestors, you go on to show how the essential need for technically trained and oriented individuals has increased over time, and then you propose that the current emphasis on a technical education may be a strategic error. I would argue that the same set of data and examples would conclude that the side that had the best technically trained minds has been the key to success, innovation, and victory. The side that best understands and applies the technology has won far more times than those turtles who restudy how to refight the next war with the technologies of the last war. While we no longer need to educate our officers into the intricacies of logarithms (we have computers to solve the artillery problem), we must have computer-literate officers to solve the force application and command and control problems of our day.

Likewise, you do your readers a disservice by introducing the statistic regarding the number of individuals holding nontechnical degrees at Air War College. I have tallied the education of the generals and lieutenant generals as shown in their official biographies for both active and retired lists. These data overwhelmingly support the premise that the way to succeed to the leadership of the U.S. Air Force is through a technical orientation. The data indicate that for the sample of fifteen retired full generals, only five show other than a sound technical background among their academic achievements. For retired lieutenant generals, out of a sample of twenty-nine, again only five indicated other than a B.S. degree. As for active duty, of the twelve generals, three had no B.S., and of thirty-seven lieutenant generals, there were nine without a science major. I think that you should revisit the data and find out how many bachelor of science degrees were in the original accession group and how many were lost to the Air Force. As an aside, the percentage opportunities for promotion appear to be very good for the technically trained in the class of

1983 at the Air War College.

As would be expected, many of these leaders came from the service academies. I think that you should have pointed out that these academies were established to provide military engineers, and in early times in our history they were the best schools for a technical education and were sometimes attended by students who wanted a technical education, not necessarily a military education. Your readers should know that graduates such as Lee, MacArthur, Patton, Marshall, and Eisenhower were all trained to be engineers.

Advocates of such novel ideas as submarines, tanks, and airplanes had to see through the limitations of the first unreliable, unsafe, and extremely limited early models and envision the technical limits that these ideas could reach. They had to resolve many technical problems and convince the skeptics by test and analysis that these ideas were sound and practical. The future innovative concepts of a space-based ballistic missile defense, electronic warfare, and the full application of C<sup>3</sup>CM will require officers with exceptional backgrounds in physics and electronics to design and operate such complex systems effectively. It does no credit to our military predecessors to remember that there was no operational requirement for airplanes or ballistic missiles. The future will be driven by our ability to recognize and utilize technology. We no longer have the luxury of waiting for others to advance the state of the art and adapt it to our needs.

In my opinion, the trend to more technical people is sound. During my time in the Air Force our activities require more and more understanding of the technical limitations of the tools of our trade. Unfortunately the days of flying planes with the white scarves in the wind are gone, never to return. Today's pilot or operator is a systems manager who is tasked to use the right system and get the most from it. I submit that as the system complexity grows and the individual is forced to rely more and more on electronic means to maintain aware

ness and status, the need for technically trained people will become even greater.

I am convinced that you could not have meant what you wrote. Perhaps you should clarify what you mean by a technical education. The U.S. Air Force prides itself on being the military leader of the world in the recogni-

tion and adaptation of technology. Our success has been based on this proven ability to use and push the technology.

*Griffiss AFB, New York*

Colonel Hillebrand is Chief, Surveillance Division of the Rome Air Development Center.

## EDITOR'S REPLY

I hasten to assure Colonel Hillebrand that I meant what I wrote. And just what was that? My remarks began with four full paragraphs devoted to demonstrating the opening thought: that technology has been one of the greatest forces for change in human affairs, and that this has been especially true in war. Even so, I then wondered, are we being well served today by an officer accession policy so committed to the importance of technology that it seems destined to exclude from our ranks everyone *except* those with a scientific or engineering degree?

Colonel Hillebrand's comments give the impression that he thinks *every* Air Force officer should be a scientist or engineer if he or she is to be capable of leadership in the modern service. This, I submit, is no truer now than it ever was, since technical skill is not required to see the potential in new weaponry. It was a war correspondent who came up with the idea of the tank. A college dropout (Billy Mitchell) and a notoriously poor student who only barely made it into the British army (Sir Hugh Trenchard) are listed among the prophets of air power.

Space limitations do not permit us to print the two solid pages of data that "overwhelmingly support" Colonel Hillebrand's "premise that the way to succeed to the leadership of the Air Force is through a technical orientation." (This how-to-get-ahead aspect of his rebuttal, by the way, was no part of the content or intent

of my editorial.) His data consist of the names of ninety-three generals and lieutenant generals, active and retired, of whom sixty-nine earned B.S. degrees. Many of these sixty-nine also hold M.S. degrees. These data are offered apparently under the assumption that all B.S. and M.S. degrees have something to do with science, technology, or engineering (as was once intended but is no longer true). The number of both in such fields as business, management, public administration, sociology, political science, economics, international affairs, and military science (often a pseudonym for military history) is legion, especially among military officers. Consider these few examples which are taken from the data supplied by Colonel Hillebrand: One general's B.S. degree from Auburn University is in history, another's B.S. from the University of Omaha is in military science, and still another's B.S. degree from the University of Nebraska is in geography and political science.

These examples are not exceptional. As a result, what his data indicate to me is that there is a healthy diversity in the educational backgrounds of today's general officer corps, one that is endangered by the current emphasis on technical education in officer accessions. It is disturbing to think that many of today's general officers listed by Colonel Hillebrand might not qualify for commissioning under an Air Force accession program driven by a requirement for technical degrees.



Finally, Colonel Hillebrand teases me by listing several of my personal heroes who he claims "were all trained to be engineers." I would remind him that:

- The only academic subject in which Ike excelled at West Point was English, in which he ranked in the top ten in his class.

- Looking back on his years at VMI, George Marshall "always regretted his lack of training in how to express himself in writing and speaking, the ineffective instruction in foreign languages, and the total lack of courses in history and the social sciences which would have better prepared him for understanding national and international problems."

- When asked for his suggestions by Major

General Maxwell Taylor, the newly appointed Superintendent at West Point, General Patton, replied in September 1945:

I am convinced that nothing I learned in electricity or hydraulics or in higher mathematics or in [mechanical] drawing in any way contributed to my military career. Therefore I would markedly reduce or wholly jettison the above subjects.

- The views of Robert E. Lee and Douglas MacArthur with regard to the utility of being well prepared in the intangibles of leadership, morale, cohesion, and the operational art are too well known to be repeated here.

Thus, my original question stands: "Air Force Officer Corps, Quo Vadis?"

D.R.B.

## ON PALMER AND THE PENTAGON: THE RELEVANCE OF AN OLD SOLDIER'S IDEAS

DR. EDWARD J. PHILBIN

IN preparing the review of the biography of Brigadier General John M. Palmer by Dr. I. B. Holley, Jr.,\* Dr. Russell F. Weigley confessed to "groping in search of a theme" (p. 93) for his piece due to "difficulty of finding current relevance in General Palmer's main ideas." (pp. 93-94) I was bemused by Professor Weigley's difficulties because they contrasted so sharply with my own admiration of the contemporary relevance, to say nothing of the prescience, of Palmer's views when I first read the book in December 1982.<sup>1</sup>

My experience in the Pentagon during the remaining eighteen months of my tenure as Deputy Assistant Secretary of Defense for Reserve Affairs did nothing to denigrate my admiration for the visionary nature of what Dr. Weigley refers to as Palmer's "profound and

important . . . basic convictions and principal ideas." However, in contrast to Weigley's view that Palmer's ideas "seem attuned and proper for his own time, but not for ours," I revisited the Holley book many times subsequent to my initial reading to assure myself, with both amusement and chagrin, that the words and phrases then and presumably still buzzing about the conference rooms of the Pentagon, concerning all facets of the Total Force Policy and the "Force Mix Issue" were not novel but had indeed been uttered by Palmer, his supporters, and his detractors, with roughly comparable amounts of heat and light, decades before the present cast of adversaries had joined battle. In fact, the citizen-soldier controversy in which General Palmer played such an important role had its genesis in the American Revolution and seems destined to continue as long as our country exists.

Before considering a possible explanation

\*Dr. Russell F. Weigley, "Problems of the Thinking Man in Uniform," *Air University Review*, July-August 1984, pp. 93-96.

for such a stark polarity of opinion, one might find it useful to summarize the basic concepts espoused by Palmer, a self-professed "hide-bound professional soldier," not only during his military career but throughout his adult life.

Palmer claimed that the "most important fruit" of his Regular Army experiences was "a set of convictions about the proper role of the military in a republic and the relationship of the civilian components to the regular forces." Palmer's conceptualization of that role and relationship was eventually promulgated by General George C. Marshall in War Department Circular No. 347 (25 August 1944) as the type of military institution that was to be the basis for postwar peace establishment planning. That basic military institution was described as a

... professional peace establishment (no larger than necessary to meet normal peacetime requirements) to be reinforced in time of emergency by organized units drawn from a citizen army reserve, effectively organized for this purpose in time of peace; with full opportunity for competent citizen-soldiers to acquire practical experience through temporary active service and to rise by successive steps to any rank for which they can definitely qualify; and with specific facilities for such practical experience, qualification, and advancement definitely organized as essential and predominating characteristics of the peace establishment.

Although General Dwight D. Eisenhower quietly rescinded Circular 347 soon after he replaced General Marshall as Army Chief of Staff, an examination of the current military structure of all the services under the Total Force Policy reveals a striking resemblance to that earlier "peace establishment."

Palmer's intellectual construct was composed of experiential bricks. For example, although the custom among Regular officers of the time was to take a patronizing view of summer soldiers, the courageous performance of these amateurs in battle led Palmer to the belief that an interested and alert citizen-soldier might very

well know more about the profession of arms than an uninterested, time-serving professional. Notwithstanding the very real deficiencies of the militia of the time, General Palmer was convinced that citizen-soldiers were a splendid body possessed of great military potentialities, as well as a political potency unmatched by the Regulars. Thus, citizen-soldiers could be utilized not only to fashion an adequate national defense but to generate the public support needed to persuade Congress to appropriate the required dollars.

Palmer shared a basic premise with Marshal Foch: successful officers must be men of broad cultivation, and a citizen-soldier of wide experience and far-ranging outlook might be more effective in war than a highly trained but narrow Regular whose interests had been largely focused on military politics, the prospects for promotion, and the next assignment. Consequently, Palmer was absolutely opposed to a concentration of military leadership exclusively in the hands of a professional military elite.

Although Palmer and Marshall both vigorously sought to institute a program of universal military training (UMT) as the motive power of the peace establishment they envisioned, it was merely a means of implementation. The essence of Palmer's plan was not only to provide individual training for citizen-soldiers but also to train them to operate in organized units as an integral part of the nation's defense system, thereby making possible a reduction in the size of the Regular Army. He was a champion of every measure that would provide citizen-soldiers with secure membership in stable military organizations whose traditions, practices, and leaders were familiar; he had seen the alternatives fail in battle. His citizen-army was to be composed of organized units commanded and led by Reservist officers who knew and understood the character and outlook of citizen-soldiers.

Palmer's battle cry in the doctrinal wars was for complete harmony of American military policy with the social and political institutions



of a democratic people. Therefore, he believed that the Old Army doctrine, synonymous with the name of General Emory Upton and calling for an expansible standing army, had no congenial place in this country not only because of philosophical incompatibilities with societal values but also because political realities made such an army impossible. Palmer was certain that a peacetime nucleus large enough to anchor an effective army expansion for a great war saddled the taxpayer with an unacceptably large peacetime force of Regulars. Yet a peacetime nucleus small enough to be realistically acceptable to the Congress would be too small a war army, unless one assumed a rate of wartime expansion that was absurd. His solution was to maintain a small Regular Army and to mobilize a preexisting citizen Reserve organized in units, which could be provided further post-mobilization training. Such a plan, he believed, would not only be in harmony with the national spirit and traditional American military policy but would also be economically and politically feasible.

It was this vision to which Palmer clung throughout his life, albeit with variations of detail in its proposed implementation. His advocacy was in opposition to the Old Army Regulars who, ignoring Palmer's research on George Washington's views, parroted Emory Upton's *Military Policy of the United States* on the virtues of an expansible Regular Army and the evils of reliance on civilian components with the object of relegating the militia to the role of local constabularies, if not to the devil.

Palmer never faltered in his view that the central problem of a democratic military policy is the determination of the proper relationship between the full-time and the part-time soldiers, a still lively subissue of the Total Force Policy known under the rubric "Force Mix." He preached that the Regular Army did a great disservice to itself in its refusal to recognize and make effective use of the widespread and abiding interest in national security extant in many segments of civilian society.

It was an article of Palmer's faith that his type of military would provide maximum defense at minimum cost and would also ensure the nation's freedom with a military institution suited to the "genius of a democratic people." Recognizing that the cost of comparable units declined drastically as one went from reliance on Regular to reliance on National Guard and Reserve units, he said:

In forming the peace establishment . . . no organization should be maintained in a higher price category if it can be safely maintained in a lower priced category and mobilized therefrom in time to meet the requirements of an emergency.

Always aware of the political dimensions of military institutions, he was convinced that it was economics, not foreign policy, which would determine the real character of a peacetime military establishment. His distrust of the motives behind the Uptonian expansible army concept made him ever wary of any military structure that could relegate citizen-soldiers to the role of cannon fodder in an army designed and controlled by Regulars.

Despite the successful and ever-improving performance of the Total Force Policy for over a decade, the citizen-soldier debate continues. Although the Reagan administration has been unswerving in its adherence to that policy, as evidenced by the current DOD guidance, there are unbelievers, both military and civilian, who would geld or garrote the Total Force Policy and the All-Volunteer Force.<sup>2</sup> Proposals are heard for both a massive expansion of the standing forces and a return to massive conscription in lieu of reliance on a strong National Guard and Reserve. Suggestions to limit non-Regulars to company-grade ranks and to use Guardsmen and Reservists solely as fillers for active-duty units rather than to organize them in units of their own are seriously, if quietly, discussed. Fears exist that, if called, Guardsmen and Reservists will not appear; that if they appear, it will not be in time; and, if in time, they will be found wanting in élan or competence. Another popular bête noire gua-



ranted to cause military insomnia, despite all of the evidence to the contrary, is the alleged unwillingness of any U.S. President to mobilize the Guard and Reserve, regardless of the national need, for fear of the domestic political consequences.

Admittedly, detractors of the Total Force Policy, and the All-Volunteer Force are few in numbers, at least in the public arena; but they are active, whether from pure or parochial motives it is impossible to determine. Such disagreements come as no surprise to readers of General John M. Palmer, *Citizen Soldiers, and the Army of a Democracy*. Indeed, the genesis of the current arguments was in debates between Washington (promilitia) and Hamilton (antimilitia). What is astounding is that the arguments were not stilled by the evidence in

Palmer's time, nor have they been in ours. Weigley's discovery of the relevance of Palmer's insights into military politics and conservatism and the role of a serving officer who dissents from official policies of superiors is extremely well espoused in "Problems of the Thinking Man in Uniform." His inability to find similar relevance in Palmer's citizen-army concept is probably due to too heavy a focus on the Palmer/Marshall crusade for universal military training, certainly made irrelevant today by cost considerations and the massive planning complexities entailed, to say nothing of the lack of need. However, UMT was merely a means of implementing Palmer's larger vision, the citizen-army peace establishment, which, I submit, is as relevant as today's newspaper and tomorrow's Pentagon conference.

Washington, D.C.

#### Notes

1. I. B. Holley, Jr., *General John M. Palmer, Citizen Soldiers, and the Army of a Democracy* (Westport, Connecticut and London: Greenwood Press, 1982, \$35.00), 726 pages.

2. See, for example, Philip Gold, "What the Reserves Can—and

Can't—Do," *The Public Interest*, Spring 1984, pp. 47-61.

Dr. Philbin is Commissioner of the Federal Maritime Commission.

Out of every hundred new ideas ninety-nine or more will probably be inferior to the traditional responses which they propose to replace. No one man, however brilliant or well-informed, can come in one lifetime to such fullness of understanding as to safely judge and dismiss the customs or institutions of his society, for these are the wisdom of generations after centuries of experiment in the laboratory of history.

Will and Ariel Durant  
*Lessons of History*, p. 35



books,  
images, and  
ideas

## INVENTING HISTORY: SOVIET MILITARY GENIUS REVEALED

LIEUTENANT COLONEL BARRY D. WATTS  
DR. WILLIAMSON MURRAY

**D**R. BRYAN I. FUGATE'S *Operation Barbarossa: Strategy and Tactics on the Eastern Front, 1941*† boldly attempts to dispute the

view, long "taken as an article of faith" by bourgeois historians in the West, that the 1941 German attack on the Soviet Union caught the

---

†Bryan I. Fugate, *Operation Barbarossa: Strategy and Tactics on the Eastern Front, 1941* (Novato, California: Presidio Press, 1984, \$22.50), 415 pages.



Georgii K. Zhukov (left) became a marshal during the course of the Great Patriotic War. Marshal A. M. Vasilevsky (right) worked on defensive operations plans prior to the German invasion in June 1941.

Soviets by surprise, without any realistic plan or operative concept for coping with the situation that confronted them. (p. xix) The truth, Fugate maintains, is otherwise. While the Soviet political leadership would have preferred to delay major war with Germany until 1942 (or even 1943), by the end of December 1940 "it is evident that Stalin was beginning to have serious second thoughts" about what Hitler was preparing to do in 1941. (pp. 38-39) Fugate further contends that as the upshot of study-conference and war-gaming sessions held in Moscow during late December 1940 and early January 1941, General (later Marshal) Georgii K. Zhukov was able to refute the previously held conviction that the Red Army could stop the Wehrmacht on the Soviet frontier, thereby implying that a German attack "would have to be continually drained of energy by successive echelons of defense located deep within Russia." (p. 42) Recognizing the correctness of this view, Stalin quickly secured Zhukov's appointment as Chief of the Soviet General Staff.<sup>1</sup> Armed by late March 1941 with increasingly detailed and accurate intelligence on German preparations for the invasion of the Soviet Union, Zhukov and the Soviet High Command proceeded, according to Fugate to set in motion a "concrete and workable" plan for the defense in depth of the Soviet Union in three echelons (tactical, operational, and strategic).<sup>2</sup> (p. 51, pp. 34-35) The result was a balanced, combined arms response to Barbarossa that "went beyond the simple, straightforward plans" of the Nazis and, with the help of many "egregious blunders" by Hitler and the German High Command, saved the Soviet state from extinction. (pp. 34, 35) Thus, Fugate concludes, "viewed from any standpoint, the USSR was as well-prepared for war in June 1941 as it possibly could have been, considering the late start the General Staff under Zhukov's direction had in implementing a strategic defense plan." (p. 58)

Fugate's revisionist reconstruction of Barbarossa's history is, to say the least, provocative. After all, if Fugate is correct, then we in the

West have profoundly misjudged the strategic competence of a Soviet leadership whose successors pose the greatest and most enduring threat to Western security. At a minimum, Fugate's revelations, if true, would represent the penetration of a Soviet strategic deception that has been in effect since 1941. But if Fugate is wrong, then his book could well distort the perceptions of an entire generation of Western historians and military officers. Consequently, right or wrong, Fugate's lengthy and seemingly well-researched examination of the Germans' 1941 invasion of the Soviet Union merits close scrutiny, especially by those professionally concerned with a potential future war involving U.S. and Soviet forces.

Is Fugate's thesis about heretofore unsuspected Soviet military genius supportable? Insofar as this question is to be decided on the basis of available evidence—as opposed to one man's "burning conviction" that the conventional wisdom about Barbarossa is mistaken—the answer appears to be an unequivocal no.<sup>3</sup> To go right to the heart of the matter, not only does Fugate's version of Barbarossa's history fly in the face of such highly regarded Western accounts as Barton Whaley's *Codeword Barbarossa* and John Erickson's *The Road to Stalingrad*, but it is flatly at odds with Soviet accounts. Indeed, so widespread is Soviet testimony against Fugate's thesis that we suspect historians, military theorists, and professional officers in the Soviet Union may be even more surprised by his "revelations" than we were.

The problems of surprise and the beginning period of war have, especially since World War II, been a recurring preoccupation of Soviet military theorists. The definitive Soviet treatment of these problems currently known to Western observers is a volume titled *Nachal'nyy period voyny* (The Initial Period of War). Originally signed to press in June 1974, 50,000 copies of this book were printed by Voenizdat, the publishing house of the Soviet Ministry of Defense.<sup>4</sup> The senior author associated with the volume is General of the Army Semen Pavlo-





vich Ivanov. General Ivanov's military credentials include graduation from the Frunze Military Academy in 1939, participation in the 1939-40 war against Finland, involvement in Soviet planning for the Stalingrad offensive as well as for the Kursk operation, and five years (1968-73) as Commandant of the Academy of the General Staff.<sup>5</sup> Besides Ivanov, six other contributors are identified (N. I. Gutchenko, L. I. Ol'shtynskiy, N. G. Pavlenko, A. F. Sopil'nik, N. A. Fokin, and F. I. Shestering), making *Nachal'nyy period voyny* truly the product of

an "authors' collective." Because no comparable Soviet work on the beginning period of war is known to have appeared since 1974, *Nachal'nyy period voyny* apparently remains the authoritative Soviet treatment of this important subject.<sup>6</sup>

What does *Nachal'nyy period voyny* have to say about Soviet planning prior to Barbarossa? As it turns out, the book, has quite a bit to say. To quote from it at length:

The concept of initial operations . . . envisaged that the [Soviet] Armed Forces would make a

powerful retaliatory strike against the enemy with the aim of repelling the aggression and shifting combat to its territory. . . . The General Staff elaborated an operations plan, according to which our main forces were to be deployed in a zone from the coast of the Baltic Sea to the Poles'ye, that is, on the northwestern and western axes. When, in September 1940, this plan was reported to the Politburo of VKP(b) Central Committee, J. V. Stalin raised the thought that the probable enemy would endeavor to concentrate its basic efforts in the southwest. The General Staff reworked the initially compiled operations plan and outlined a new one which envisaged the concentration of our main efforts on the southwestern axis. Since carrying out of the missions designated by the plan was to be executed in the form of a retaliatory strike after the strategic deployment of the main forces of the Red Army, in the first stage of the initial strategic operations *the covering armies deployed in the border zone should, by active defensive operations with the support of aviation and the tactical reserves, repel the enemy thrust and thereby provide for the concentration and deployment of all the forces designed for making the retaliatory strike. . . .*

The plan for defending the state frontier was worked out by the General Staff in the spring of 1941. On its basis, each of the border military districts was to elaborate its own specific combat plan. Such plans were drawn up, and from the 5th through the 20th of June [1941] were submitted to the General Staff for approval.

Thus, according to the general strategy of the Soviet High Command, the immediate strategic aim . . . consisted in repelling the first strike of the enemy by using the troops of the first strategic echelon (*the covering armies and the reserves of the border districts*), in securing the concentration and deployment of the main forces of the Red Army, and in creating favorable conditions for making a retaliatory strike against the enemy.'

What does this account suggest? First, it explicitly states that in late 1940 the Soviet concept was to stop any Nazi attack at or near the western borders of the Soviet Union, thus creating the conditions in which the "second strategic echelon (the Dnepr was to be its deployment line)" could develop a retaliatory counterblow.<sup>8</sup> Second, *Nachal'nyy period voyny* provides no clear evidence that this initial concept was ever revised in early 1941 along the

lines that Fugate suggests. Instead, what the book states is that for a number of "objective and subjective reasons," the most crucial being Stalin's misjudgment of the precise time of the German attack, by 22 June 1941 "the Soviet High Command had been unable to create the initial strategic grouping of the Red Army along the western frontiers *in that form which the actually developing situation required.*"<sup>9</sup> In short, if Ivanov and his coauthors are to be believed, the Soviet "system as a whole" was, as Barton Whaley argued in 1973, taken by surprise on the morning of 22 June 1941.<sup>10</sup>

Could the authors of *Nachal'nyy period voyny* be misinformed? Fugate does, after all, assert that because Zhukov and Stalin realized that "no force on earth" could have saved the Red Army units on the frontier "from being cut off and surrounded soon after the war began," they "decided that the deception would have to be good enough to deceive not only the Germans but also their own front-line forces." (pp. 45, 46) The difficulty with this explanation is that individuals such as Zhukov, who had to have been privy to what was really being planned, basically agree in their published memoirs with the account in *Nachal'nyy period voyny* rather than Fugate's in *Operation Barbarossa*.

One of the more detailed firsthand accounts of Soviet General Staff planning prior to Barbarossa can be found in Marshal A. M. Vasilevsky's 1973 *Delo vsej zhizni* (A Lifelong Cause). In May 1940, Vasilevsky "was appointed first deputy chief of the General Staff Operations Department" and, under the general guidance of Marshal Shaposhnikov, he, along with N. F. Vatutin and G. K. Malandin, drew up the "considerations and the plan for strategic deployment of Red Army forces [that] were reported to Stalin in the presence of some Central Committee Politburo members in September 1940."<sup>11</sup> As in the Ivanov book, Vasilevsky reports that this meeting resulted in instructions to the General Staff to revise the plan in accordance with Stalin's opinion that the Germans'

main effort would come not in the center toward Moscow but in the southwest toward Kiev and the Ukraine.<sup>12</sup>

To revise the original plan, a huge amount of work had to be completed by 15 December 1940. Although illness forced Vasilevsky to miss the study-conference and operational-strategic war games out of which Fugate makes so much, he does observe that the reason for the 15 December 1940 deadline was because on "1 January 1941 the command and staffs of the districts had to be able to begin work on their own plans."<sup>13</sup> (pp. 37-43) He also notes that the amendments made to the plan before the December 1940 study-conference continued, *after* February 1941, to assume that the initial German thrust could "be contained by our rifle units and strongholds in the border military districts acting jointly with the borderguards," thus giving time for mechanized corps to counterattack, join with the infantry to smash "the enemy wedges," and set the stage for a "decisive counteroffensive."<sup>14</sup> Finally, Vasilevsky, in agreement with *Nachal'nyy period voyny*, explicitly states that as a result of Stalin's "gross error" after mid-May 1940 in refusing to make the political decision to go over to a full war footing, Soviet "troops were forced to accept battle with the aggressor *under considerably worse conditions than they could have been otherwise.*"<sup>15</sup>

Offhand, it would seem a bit much to insist that a change in Soviet planning as dramatic as that alleged by Fugate could, or would, have been concealed from Vasilevsky—either in 1941 or, years later, when Vasilevsky dug through the Soviet archives to give his memoirs a "solid factual basis."<sup>16</sup> Nevertheless, let us suppose, for the sake of giving Fugate's hypothesis every benefit of the doubt, that the First Deputy Chief of the General Staff's operations department was never let in on the secret. Even so, some high-ranking members of the Soviet military hierarchy had to have known; and Fugate, in the context of describing what the Soviets really knew about German planning in ad-

vance of the actual attack, names both Zhukov and Defense Commissar S. K. Timoshenko:

The 1940 plan for operations was revised under the supervision of Zhukov and Timoshenko in the spring of 1941, and they, no doubt, were well aware of what the Germans' intentions were, insofar as they had been set down in the Barbarossa directive of [18] December 1940. Zhukov says that the general staff intelligence chief, F. I. Golikov, "accurately summarized the evolution of the 'Barbarossa' plan by late March 1941." According to Guderian, "the plan for operation 'Barbarossa' was almost certainly known to the Russian command." Taking the directive itself at face value, the Soviet Supreme Command logically concluded that the Germans were more interested in reaching Leningrad and seizing the Ukraine before taking Moscow, and Stalin himself was convinced that this would be the most rational course to follow. (p. 51)

The disturbing thing in this passage is the statement attributed to Zhukov without a supporting citation.<sup>17</sup> Fugate seems to intend the reader to infer that Zhukov's *Vospominaniya i razmyshleniya* (Recollections and Reflections) firmly supports his interpretation of events. The truth is, however, that Zhukov's memoirs categorically dispute Fugate's interpretation on virtually every essential point. Regarding the Soviets' operational-strategic concept in 1940 and 1941, Zhukov states:

In the operational plan of 1940, *which after refinement (utochenennyye) was in effect in 1941*, the following was envisaged in the event of the threat of war:

- bring all armed forces to full combat readiness; quickly bring the nation to wartime mobilization;
- to fill out forces to wartime strength in accordance with the mobilization plan;
- to concentrate and deploy all mobilized forces in the regions of the western border in accordance with the plan of the border military districts and the military High Command.<sup>18</sup>

As for what the Soviets actually knew about the substance of Hitler's Barbarossa directive prior to 22 June 1941, Zhukov supports Fugate to the extent of citing Golikov's 20 March intelligence report containing a variant that reflected



the essence of the German plan.<sup>19</sup> But he immediately goes on to document that this and other vitally important intelligence was discounted by Golikov and others, including Stalin himself, as being false, if not deliberate misinformation.<sup>20</sup> And beyond the failure of the Soviet political leadership to interpret correctly what later proved to be accurate intelligence on German plans for invading the Soviet Union in 1941, Zhukov further insists that this vital information was not given to the military:

Did the leadership of the Defense Commissariat and the General Staff know about information of this type that J. V. Stalin received? After the war Marshal S. K. Timoshenko assured me that he personally knew nothing. As chief of the General Staff, I also can attest that I was not informed about this.

From the first postwar years to the present time there have appeared here and there published accounts that say that on the eve of the war the plan "Barbarossa" was known to us, as were the direction of the main thrusts, the width of the front of deployed German forces, the number of Germans and how they were equipped. . . .

I can say with full responsibility that this is pure fiction.<sup>21</sup>

This passage directly contradicts against Fugate's account of what the Soviets knew in advance of Barbarossa.

To summarize the views expressed in *Vospominaniya i razmyshleniya*, the 1940 operational and mobilization plans were *refined* prior to 22 June 1941 in that the Soviets changed their estimate of the direction from which the main German blow would come. Still, Zhukov's memoirs give no indication that the concept of repelling the Germans on the frontier was abandoned. The intelligence data that Fugate claims informed Timoshenko and Zhukov's replanning for a theater-depth defense were not taken seriously by the Soviet political leadership. (Zhukov notes in *Vospominaniya i razmyshleniya*: "Comparing and analyzing all the conversations conducted by J. V. Stalin in my presence and in a circle of the people closest to him, I have come to a firm

conviction: all his thoughts and actions were permeated by a single wish—to avoid war or to postpone its outbreak and that *he was certain he would succeed* in this endeavor."<sup>22</sup> Nor, according to Zhukov, was this intelligence information made available to the military leadership. Lastly, the operational and mobilization plans that had been developed by the military and approved by the political leadership *were not implemented* "until the night of 22 June 1941, and even then not in full measure."<sup>23</sup> Like Vasilevsky, Zhukov's published recollections identify Stalin's miscalculation of the time of the Nazi attack as the basic mistake from which so many others flowed.<sup>24</sup>

There is, then, something of a problem with Fugate's use of sources. To embrace Fugate's so-called revelation about Soviet military genius also logically necessitates embracing the proposition that the most authoritative sources regarding the substance of Soviet military planning in the late winter and spring of 1941 are rife with boldface lies. If Fugate is right, then Ivanov, Vasilevsky, Zhukov, and others are not only lying but also are all agreed on more or less the same lie. Even more fantastic, if Fugate is to be believed, since 1945 the Soviet authorities have evidently persisted in foisting this lie on each successive generation of Soviet officers as part of their professional military education!

Beyond Soviet accounts of the history in question, the evidence that Fugate offers for his revisionist interpretation of Barbarossa falls largely into two categories: first, tantalizing fragments of information about Soviet deployments up through 22 June 1941 and, second, a list of supposedly unanswered questions about combat operations during the ensuing campaign. In the first category, Fugate highlights the positioning of the Soviet Twenty-first Army near Gomel on what, by mid-July 1941, was the southern flank of Field Marshal Fedor von Bock's Army Group Center. "The Twenty-first Army," Fugate states,

did not just magically appear, nor was it slapped together in a rush and thrown into battle. It was there in position before the invasion, waiting to perform its mission—which it did with some effectiveness. (p. xxii)

Here the mystery seems to be exactly who alleges, or has alleged, that this unit magically appeared or was thrown pell mell into battle. Erickson's *The Road to Stalingrad*, which Fugate cites in his chapter on prewar Soviet planning and strategy, first mentions the Twenty-first Army as one of four Stavka reserve armies that Timoshenko ordered on 25 June 1941 to take up defensive positions on a line running from Sushchevo through Mogilev, Gomel, and Chernigov.<sup>25</sup> Later, in describing the fighting involving Army Group Center at the end of July 1941, Erickson identifies this formation as one of almost a dozen Soviet armies flung into "fiery mazes of attack and defence" stretching from Velikie Luki in the north to Gomel in the south.<sup>26</sup>

As for Soviet force deployments prior to 22 June 1941 in general, Vasilevsky mentions, among others: in May, the movement of up to twenty-eight divisions from the interior to the western-border military districts; in May and June, the transfer of various armies from the northern Caucasus, Volga, and Ural military districts to the Dvina-Dnepr line; and in early June, the call-up and movement to the western frontier of some 800,000 reservists.<sup>27</sup> Again, however, Vasilevsky and Zhukov are equally clear that the Soviets failed to complete the organizational and mobilizational measures that had been planned.<sup>28</sup> Indeed, right up to the last hours, so paralyzed was the Soviet system as a whole by Stalin's fantasy that overt Soviet preparations for war might prematurely provoke a German attack,<sup>29</sup> that the "Center" in Moscow did not even react when, at a number of places along the western frontier, the Germans started dismantling their own wire entanglements and making paths through their own minefields.<sup>30</sup>

Regarding heretofore unexplained mysteries

about why Barbarossa turned out as it did, Fugate states that the Red Army's survival in 1941 cannot be adequately explained, as "most knowledgeable generals and historians" in the West have assumed, by "the miraculous combination of an early, severe winter and some incredible blunders, mostly Hitler's, on the part of the Germans." (p. 33) Now Fugate is quite right in claiming that these particular explanations do not, *in themselves*, completely explain how the Soviet army managed to survive the initial German onslaught. But to insist that the historical literature in the West offers nothing more is surely misrepresentation, as even a cursory perusal of chapters 2 to 6 in Erickson's *The Road to Stalingrad* demonstrates.

Nor do doubts about Fugate's grasp of his material end here. In describing German planning for Barbarossa, Fugate devotes a number of pages to discussing a logistical war gaming of the proposed campaign conducted in December 1940 by General Friedrich von Paulus (later commander of the German Sixth Army encircled at Stalingrad). In this early chapter, Fugate is adamant in stressing that von Paulus's logistical gaming of the actual German plan (as of December 1940) not only was "amazingly accurate in foreshadowing the actual course of events after 22 June 1941" but showed the proposed plan to be so logistically inadequate as "to be bankrupt, devoid of any chance of success." (p. 84)

Subsequently, in describing the campaign after 22 June 1941, Fugate inexplicably does not return to logistics. The subject is not even raised when he later gives reasons for the pause of Army Group Center at the end of August. Instead, he ascribes most of the blame for the difficulties that the Germans encountered at this stage to the tactical stupidity and "jealous, egotistical, contradictory, and ill-informed leadership" of the German generals—especially of the "panzer general" Heinz Guderian. (pp. 147, 165, 170-72, 191-92, 203) Yet in light of such works as Klaus Reinhardt's 1972 *Die*



*Vende vor Moskau* (The Turning-Point Before Moscow) and Martin van Creveld's 1977 *Supplying War* (which we could not find among Fugate's sources), this tacit reduction of the campaign to a purely operational event seems to be armchair generalship at its worst. As van Creveld says, Barbarossa failed "on grounds other than logistic, including a doubtful strategy, a rickety structure of command and an unwarranted dispersion of scarce resources."<sup>31</sup> Still, the German invasion of the Soviet Union "was the largest military operation of all time; . . . the logistic problems involved of an order of magnitude that staggers the imagination"; and the means with which the Wehrmacht tried to tackle these problems were extremely modest.<sup>32</sup> In other words, Fugate's own explanation of why Barbarossa failed is at least as incomplete as that of the unspecified generals and historians he so readily condemns.

To push this last point a step further, an even graver omission throughout Fugate's campaign history is any palpable awareness of the inescapable frictions that, as Carl von Clausewitz wrote a century and a half ago, distinguished real war from war on paper. In particular, Fugate seems to believe that if events are, after months of archival research, fairly transparent to the historian working decades later, then they must have been equally clear to the participants at the time. We simply can find no other explanation for a sentence as blind to the inexorable frictions of war as:

Guderian's constant downplaying of the danger of a Russian breakout in the Shchara-Zelvianka sector in order to facilitate the rapid eastward movement of his panzer group must, in retrospect, be viewed as an attempt by him to delude the commander of the Fourth Army, von Kluge, and to provide von Bock with a false excuse to ignore the obvious risk of weakening the encirclement front at Slonim. (p. 113)

As Clausewitz admonishes us: "If no one had the right to give his views on military operations except when he is frozen, or faint from

heat and thirst, or depressed from privation and fatigue, objective and accurate views would be even rarer than they are. But they would at least be subjectively valid, for the speaker's experience would precisely determine his judgment."<sup>33</sup>

Where does all this discussion leave Fugate's thesis about heretofore unrevealed military brilliance on the part of the Soviets in 1941? On the evidence at least, his position seems logically indefensible, especially if one places any stock at all in Ockham's razor—the principle that "What can be done with fewer [assumptions] is done in vain with more."<sup>34</sup> To salvage Fugate, you must be willing to assume: first, that the Soviet sources most likely to have known what really befell the Soviet Union's Armed Forces in the summer of 1941 have, ever since, gone out of their way to tell the same lies about Barbarossa;<sup>35</sup> second, that, by some form of analysis never revealed to the reader (indeed, never mentioned), Fugate alone has been able to penetrate these lies where historians like John Erickson have failed; and third, that Fugate's neglect of logistics and his blissful ignorance of friction in no way undermine his case. We would suggest, however, following William of Ockham, that there is a vastly more plausible and economic explanation: that the thesis of Fugate's *Operation Barbarossa* is simply not so. Stalin and the Soviet High Command *were* surprised and largely unprepared on 22 June 1941. The chapter titles with which Erickson characterized Soviet defensive operations during the initial three and a half months of Barbarossa are exactly right: "Disaster on the Frontiers" and "Towards the Edge of Destruction." As Erickson wrote by way of summing up the Soviets' situation in early October 1941, "the tally of almost three million prisoners of war in German hands and of the Red Army's strength falling to its lowest point in the whole war was lamentable proof of a persistent and ignorant profligacy with these once enormous armies and an almost soulless indifference to their fate."<sup>36</sup> To depict Soviet



planning and combat operations to November 1941 as otherwise is, on the evidence, to invent history.

There is a terrible irony in what we have just concluded—the kind at which only a criminal of Stalin's magnitude would have been genuinely amused. It is that if Dr. Fugate's deeper motive was to use his undeniably extensive historical research to say something important about how ruthless and tough an adversary Lenin's successors were in 1941 (and hence may still be today), he need not have invented a thing.<sup>37</sup> One of the rudest shocks that the Wehrmacht experienced in July and August 1941 was the discovery that, in contrast to the behavior typical of Western armies, Soviet units con-

tinued to fight ferociously even when hopelessly cut off and surrounded.<sup>38</sup> Or consider that even during the darkest days of Barbarossa, the remorseless intensification of political control appears to have been more important to Stalin than even the demands of the battlefield; the lives of millions counted for nothing compared to the life of the party.<sup>39</sup> For those of us whose profession involves the concrete possibility of fighting Stalin's successors in a post-Hiroshima world, there is surely more than enough worthy of contemplation in these two aspects of Operation Barbarossa alone.

Washington, D.C.

and

Ohio State University, Columbus

#### Notes

1. Soviet specialists Harriet Fast Scott and William F. Scott have noted that under the influence of the cult of personality of Stalin, the "difficult initial period of the Great Patriotic War was examined in light of a forced thesis of intentional enticing of the enemy deep into Soviet territory for the purpose of exhausting and defeating him by means of combining 'active defense' with counter attack." *The Soviet Art of War: Doctrine, Strategy, and Tactics*, edited by Harriet Fast Scott and William F. Scott (Boulder, Colorado: Westview, 1984), pp. 96-97. In other words, at the core of Fugate's interpretation of Barbarossa is a thesis that is known to have been imposed on Soviet military thinking in the years immediately after World War II as part of the Stalinist "party line." See Raymond L. Garthoff, *Soviet Military Doctrine* (Glencoe, Illinois: Free Press, 1953), p. 161.

2. Although Fugate posits a Soviet defense plan, the Red Army's 1936 *Field Regulations (Vremennyy polevoi ustav)* unequivocally accorded primacy to the offensive, stating that "only a decisive offensive in the main direction [italics in the original], concluding with persistent pursuit, leads to a complete annihilation of the forces and means of the enemy." Garthoff, p. 67. Garthoff, writing in 1953, noted that not until 1942 was defense explicitly admitted to be "a normal form of combat" in Soviet troop regulations, and that retreat was not added to the Red Army's *Field Regulations* until 1944. *Ibid.*, pp. 67, 159. Thus, the Soviets' prewar commitment to the primacy of the offense was only grudgingly caveated during World War II, and since then Soviet writers have reiterated that "this postulate [concerning the subordinate role of defense in relation to attack] remains in effect to this day." S. M. Shtemenko, *Soviet General Staff at War: 1941-1945*, translated by Robert Daghlish (Moscow: Progress Publisher, 1970), p. 27.

3. The dust jacket of Fugate's *Operation Barbarossa* states that the book resulted from the author's studies and the "burning conviction that the history of the war on the Eastern front needed to be corrected."

4. William F. Scott and Harriet Fast Scott, "Soviet Bibliographies and Their Use as Research Aids," Report DNA 6175T submitted under Defense Nuclear Agency contract DNA 001-79-C-0319, 31 December 1981, p. 25.

5. Biographical data by Harriet Fast Scott in *Selected Readings*

from *Military Thought 1963-1973: Studies in Communist Affairs*, edited by Joseph D. Douglas, Jr., and Amoretta M. Hoerber (Washington, D.C.: GPO), Vol. 5, Part II, p. 31.

6. Ivanov's *Nachal'nyy period voyny* is the pivotal Soviet military-theoretical work drawn upon in Peter H. Vigor's well-received *Soviet Blitzkrieg Theory* (New York: St. Martin's Press, 1983). As of January 1985, *Nachal'nyy period voyny* was scheduled to appear as the twentieth volume in the U.S. Air Force's "Soviet Military Thought" series.

7. S. P. Ivanov, *Nachal'nyy period voyny* (Moscow: Voenizdat, 1972), pp. 204-05. Emphasis added. The cited English translation is that kindly provided by members of the Directorate of Soviet Affairs (AFIS INCF) at Bolling AFB (pp. 279-82 of the AFIS INCF typescript). The Russian original identifies N. A. Fokin as the author of the portion of chapter 8 from which this passage was taken. The concept for initial and subsequent operations attributed to Soviet planners in 1940-41 by the Ivanov book is quite similar in overall pattern to the scenario frequently played in Warsaw Pact exercises to this day. For information on two recent exercises, see Frank Steinert, "Exercise BROTHERHOOD IN ARMS—1980," *Review of the Soviet Ground Forces*, Defense Intelligence Agency, DDB-1100-307-81, June 1981, p. 9; and James Brusstar and Frank Steinert, "Exercise SHIELD—82," *Review of the Soviet Ground Forces*, DDB-1100-412-83, May 1983, pp. 1, 2.

8. Ivanov, p. 282 (AFIS INCF draft translation); p. 206 in the Russian original.

9. Ivanov, pp. 296, 294. (AFIS INCF draft translation.) Regarding the situation that the German attack initially imposed upon the Soviets, Marshal V. D. Sokolovskiy has stated that the summer of 1941 was one of only two instances in the Great Patriotic War when the Soviets were forced—in this case by "the surprise attack of the enemy and . . . the unsuccessful outcome of the initial phase of the war"—to resort to strategic defense. As a result, Soviet troops on the frontiers suffered "unjustifiably heavy losses," and "the offensive intentions of the Soviet Command, which it attempted to put into operation [during the initial days of Barbarossa], were negated by the entire course of events." V. D. Sokolovskiy, *Military Strategy*, translated by Harriet Fast Scott (New York: Crane, Russak and Company, 1968), pp. 152, 428-29. By way of background, in the spring of 1941 then-Lieutenant General Sokolovskiy was reas-

signed to the Soviet General Staff. G. K. Zhukov, *The Memoirs of Marshal Zhukov* (London: Jonathan Cape, 1971), p. 209. Also, in 1969 the third (1968) edition of Sokolovskiy's *Military Strategy (Voennaya strategiya)* was one of only five works nominated for the coveted "Frunze Prize," which is awarded annually for the best Soviet work on military theory or history. As Harriet Scott has noted, this nomination in itself "indicated official approval for the views presented and the esteem in which the book is held" by the Soviet authorities. Sokolovskiy, p. xvii. Emphasis added.

10. Barton Whaley, *Codeword BARBAROSSA* (Cambridge, Massachusetts: MIT Press, 1973), p. 7. The basic question of Whaley's book is: "How did Hitler inflict surprise—on Stalin as well as on almost all the world's national leaders and intelligence analysts?" Ibid., p. 8. His answer is essentially that what Hitler did was not merely to make Stalin uncertain and therefore indecisive. Rather, Hitler's "ultimatum" stratagem "served to eliminate ambiguity, making Stalin quite certain, very decisive, and wrong. Stalin was misled into expecting an ultimatum before any attack, thereby giving him the option of conceding or preempting. Stalin's false expectation was the direct effect of Hitler's campaign to manipulate his victim's information, preconceptions, conclusions, and decisions. By the judicious transmission of disinformation, he masked not only the time and direction of his attack, but also his very intention to attack." Ibid., p. 242.

11. Alexander M. Vasilevsky, *A Lifelong Cause*, translated and abridged by Jim Riordan (Moscow: Progress Publishers, 1981), pp. 73, 74. Marshal Vasilevsky's memoirs, *Dyelo vshey zhizni*, were originally published in Russian by Politizdat, the political affairs publishing house, in 1973.

12. Vasilevsky, *A Lifelong Cause*, p. 75.

13. Ibid., pp. 75, 79.

14. Vasilevsky, p. 80. As Vasilevsky notes, even in the spring of 1941 several individuals "among the leadership of the Peoples' Defense Commissariat (especially G. I. Kulik, L. Z. Mekhlis and Ye. A. Shchadenko)" were captured by the illusion of "easy victory," meaning the "incorrect view" that any German attack "would be quickly repulsed and that the war . . . would be carried to the enemy's territory." Vasilevsky, p. 77 in the Progress Publisher's translation of *Delo vshey zhizni* and p. 95 in the Politizdat edition. (The literal translation of Vasilevsky's words used here was provided by Lieutenant Colonel John Hines.)

15. Vasilevsky, pp. 84, 85. Emphasis added.

16. Vasilevsky, p. 6.

17. While Fugate does not give a citation for the words in quotation marks attributed to Zhukov on page 51 of *Operation Barbarossa*, his notes and bibliography indicate that he relied on the 1971 Novosti translation of Zhukov's memoirs rather than the Russian original. The undocumented quotation in question can be found on page 228 of *The Memoirs of Marshal Zhukov* (London: Jonathan Cape, 1971).

18. G. K. Zhukov, *Vospominaniya i razmyshleniya* (Moscow: Izdatel'stvo Agentstva pechaty Novosti, 1974), Volume 1, p. 286. Emphasis added. The 1974 volume cited is an expansion of the original 1969 version. All translations from the second edition of Zhukov's memoirs were done by Lieutenant Colonel John Hines. It is likely that a great deal of *Vospominaniya i razmyshleniya* was written by a faculty member of one of the Soviet military academies.

19. Zhukov, p. 295. Golikov's 20 March 1941 report is one of several documents from the Soviet military archives quoted in *Vospominaniya i razmyshleniya* to show exactly what information the Soviets possessed on Barbarossa prior to the German attack. Ibid.

20. Zhukov, pp. 295-96. Although "Variant No. 3" in Golikov's 20 March 1941 report "in effect reflected the essence" of Barbarossa as it was actually executed, Golikov dismissed all the variants as "disinformation coming out of British, or even, perhaps German intelligence [Zhukov's italics]." Ibid.

21. Zhukov, pp. 296-97. The three cited paragraphs, which categorically contradict a key link in Fugate's reasoning, do not appear

in the Novosti translation of Zhukov's memoirs on which he relied (compare page 229 in *The Memoirs of Marshal Zhukov* with pages 296-97 in *Vospominaniya i razmyshleniya*). Harriet Fast Scott confirms that these paragraphs are not present in the original (1969) Russian version of *Vospominaniya i razmyshleniya* but only appear in the second (1974) edition. It may well be that Zhukov was moved to add these comments to the 1974 expansion of his memoirs precisely to close the door to revisionist theses about Barbarossa of the sort advanced by Fugate.

22. Zhukov, p. 287. Emphasis added.

23. Zhukov, p. 286. Zhukov stresses that the operational and mobilization plans could be implemented only by the special permission of the political leaders of the Soviet government and that this permission was not given until the early hours of 22 June 1941. Ibid.

24. Zhukov, p. 286.

25. John Erickson, *The Road to Stalingrad: Stalin's War with Germany* (New York: Harper and Row, 1975), Volume 1, p. 140. Zhukov states that the General Staff had directed three of the four armies named by Erickson to begin moving forward from interior military districts on 13 May 1941; the Twenty-first Army's destination is identified as Gomel. Zhukov, p. 282.

26. Erickson, p. 182.

27. Vasilevsky, p. 81.

28. Vasilevsky, p. 82; Zhukov, p. 286. Moreover, *Vospominaniya i razmyshleniya* plainly suggests that the rationale for the force movements begun in mid-May 1941 was the General Staff's calculation that the troops in the western frontier districts would not be able to repulse the initial German onslaught without additional armies. Zhukov, p. 280.

29. Erickson, pp. 77, 91-92, 108, 109-10, 117, and 125.

30. Vasilevsky, p. 82.

31. Martin van Creveld, *Supplying War: Logistics from Wallenstein to Patton* (Cambridge: Cambridge University Press, 1977), p. 180.

32. Ibid., p. 175. That Barbarossa "came so close to its goal . . . was due less to the excellence of the preparations than to the determination of troops and commanders to give their all, to bear the most appalling hardships, and to make do with whatever means were given to, or found by, them." Ibid.

33. Carl von Clausewitz, *On War*, edited and translated by Michael Howard and Peter Paret (Princeton, New Jersey: Princeton University Press, 1976), p. 115.

34. Ernest A. Moody, "William of Ockham," *The Encyclopedia of Philosophy*, edited by Paul Edwards (New York: Macmillan, 1967), Volume 8, p. 307.

35. Even in the case of Leon Trotsky, Soviet propensities to rewrite history as necessary to accord with the prevailing party line have not sustained a fabrication as elaborate and detailed as that demanded by Fugate's interpretation of Barbarossa. For example, the main historical distortion regarding Trotsky in the Progress Publisher's translation of A. A. Grechko's *The Armed Forces of the Soviet Union* (Moscow, 1977) does not lie in such things as the transparent denunciations of the Trotskyites' "subjectivism, spontaneity and anarchism" or their alleged opposition to the principle of one-man command. (pp. 36, 41) The biggest distortion lies, instead, in the failure to mention at all the near genius displayed by Trotsky from late 1917 to November 1920 in transforming the Red Guards from "a motley crew into a multimillion man, disciplined, military force" which, under Trotsky's able leadership, defeated the White Russians led by such capable military professionals as A. V. Kolchak, A. I. Denikin, and N. N. Yudenich. Harriet Fast Scott and William F. Scott, *The Armed Forces of the USSR*, second edition (Boulder, Colorado: Westview Press, 1981), pp. 7-8. Moreover, in the case of Barbarossa, Western sources basically confirm the Soviets' overall account rather than contradicting it as they do in the case of Soviet depictions of Trotsky's role in creating the Red Army.

36. Erickson, p. 222. As Garthoff concluded in 1953, "despite the theoretical awareness of the desirability of retreat under unfavora-



ble conditions, the Red Army in 1941 was totally unprepared for withdrawal and defense in depth. The Soviets succeeded in accomplishing the exceedingly difficult task of stopping the German advance primarily because the Germans had overestimated their own capabilities, not because the Soviets had correctly estimated theirs." Garthoff, pp. 160-61. The magnitude of the disaster suffered by the Soviets during the beginning period of the Great Patriotic War is evident in the following statistics. During the initial three months of Barbarossa, the Soviets lost roughly two million men (most of whom were taken prisoner by the Germans), 8000 planes (more than three-quarters of the Red Air Force's strength on 22 June 1941), and 17,500 tanks (from an initial inventory of about 24,000). Garthoff, pp. 428-31.

37. Fugate's seeming belief that German military commanders who fought on the eastern front during the Second World War have universally denigrated the competence of the Soviet High Command ever since 1945 is, at best, curious. For instance, Fugate's note 71 on pages 357-58 of *Operation Barbarossa* discusses at length a map from a U.S. Army pamphlet titled *Russian Combat Methods in World War II* (Department of the Army Pamphlet DA PAM 20-230, Washington, D.C., 1 November 1950), which was prepared by a committee of former German officers at the EUCOM Historical Division Interrogation Enclosure, Neustadt, Germany, in late

1947 and early 1948. Contrary to what Fugate seems to believe, however, this document concludes that the Soviet "high command was good and in its hands the troops, purely as a human mass, were a useful instrument." *Russian Combat Methods in World War II*, p. 115. Indeed, the pamphlet goes so far as to state that the "higher echelons of Russian command proved capable from the very beginning of the war and learned a great deal more during its course. They were flexible, full of initiative, and energetic." *Ibid.*, p. 8.

38. Van Creveld, p. 169; Garthoff, pp. 428-29. To cite one firsthand account of the ferocity with which Soviet units often resisted, even when cut off: "During the winter campaign of 1941, a Russian regiment was surrounded in the woods along the Volkhov and, because of German weakness, had to be starved out. After one week, reconnaissance patrols met with the same resistance as on the first day; after another week only a few prisoners were taken, the majority having fought their way through to their own troops in spite of close encirclement. According to the prisoners, the Russians subsisted during those weeks on a few pieces of frozen bread, leaves and pine needles which they chewed, and some cigarettes. It never occurred to anyone to throw in the sponge because of hunger, and the cold (-30° F.) had not affected them." *Russian Combat Methods in World War II*, p. 6.

39. Erickson, pp. 142, 175-76, 180, 213, and 222.

... the conservative who resists change is as valuable as the radical who proposes it—perhaps as much more valuable as roots are more vital than grafts. It is good that new ideas should be heard, for the sake of the few that can be used; but it is also good that new ideas should be compelled to go through the mill of objection, opposition, and contumely; this is the trial heat which innovations must survive before being allowed to enter the human race. It is good that the old should resist the young, and that the young should prod the old; out of this tension, as out of the strife of the sexes and the classes, comes a creative tensile strength, a stimulated development, a secret and basic unity and movement of the whole.

Will and Ariel Durant  
*Lessons of History*, p. 36



## POTPOURRI

*The Soviet Air Forces* edited by Paul J. Murphy. Jefferson, North Carolina: McFarland and Company, 1984. 375 pages, \$39.95.

As noted in the introduction to this volume, the Soviet Air Forces (*Voyenno-vozdushnyye sily* or VVS) have been overshadowed in a number of ways by other branches of the Soviet military. Thus, despite the fact that it claims the largest share of the defense budget, the VVS is politically weaker than the Red Army and is accorded less attention in the West than the navy; there is no VVS equivalent to the famous Admiral Gorshkov. In the same vein, the Soviet Air Forces receive relatively little press in this country, even in professional military journals. One suspects, therefore, that the average U.S. Air Force officer knows little of his Soviet counterpart's service beyond—as the need arises—some important but isolated facts about various weapon systems. This lack of knowledge is troublesome because an understanding of air power demands an appreciation of doctrine, historical development, organization, training, and national politics as well as orders of battle and aircraft performance data.

Accordingly, the publication of another book on the Soviet Air Forces is a welcome event, especially—as in this case—when the volume contains numerous chapters (sixteen of them) on a wide range of subjects relating to that service. Because they go beyond the usual scope of books on the Soviet Air Forces, the chapters on Chief Marshal of Aviation P. S. Kutakhov (VVS Commander in Chief), on the leadership within the VVS, and on party-military relationships, as well as those on aircraft design and the Soviet aviation industry, should be of interest to readers. Likewise, the lengthy piece by John Greenwood and Von Hardesty on the Soviet Air Forces in World War II helps to fill the void on this important topic; here readers might note not only the scale and intensity of the air war on the eastern front but also the manner in which the VVS evolved during the conflict, incorporating new types of aircraft and adapting to changing conditions and new missions.

Beyond the thematic pieces, the collection includes chapters on Frontal Aviation (the tactical air component), Military Transport Aviation (VTA), helicopters, Aeroflot, and the bomber force; these provide details on aircraft, force composition, and employment doctrine. Finally, contributions on changes in air-to-air combat training and on the major restructuring of command relationships round out the volume.

The main theme that runs through virtually all of these essays is that the Soviet Air Forces have evinced a considerable ability to improve their capabilities for a variety of combat and support missions—and this trend is likely to continue into the future as new types of aircraft with greatly enhanced capabilities are introduced into operational units. Further, Rana Pennington's excellent chapter on the Soviets' new approach to air combat training (designed to instill greater initiative in fighter pilots) illustrates clearly that qualitative improvements in tactics will complement the new equipment, as does Marshal Kutakhov's emphasis on advanced technical training for officers. It would therefore be a serious mistake—and, ultimately, a dangerous mistake—to regard the Soviet Air Forces as static or inflexible in any sense. That this point is not taken up in an overview or synthetic chapter is the principal shortcoming of *The Soviet Air Forces*.

Minor errors of fact appear infrequently in the volume but could mislead the unwary. For example, the thrust-to-weight ratio of 1.1:10 given for Fishbed-N (p. 143) hardly "makes the aircraft a plausible competitor to the F-16." Like all books on contemporary subjects, this one has in some cases been overtaken by events. In general, however, the volume is informative and makes a substantial contribution to the field.

Dr. Ralph S. Clem  
*Florida International University, Miami*

**Soviet Power: The Kremlin's Foreign Policy, Brezhnev to Chernenko** by Jonathan Steele. New York: Simon and Shuster, 1984, 289 pages, \$7.95.

One would expect a writer for the leftist *Guardian* and frequent visitor to the Soviet Union and "its allies: Poland, Afghanistan, and Cuba" to write an apologia for Soviet foreign policy. This is exactly what Jonathan Steele has done. In his introduction, he states that Soviet policy in the Third World is no different from the policy of any other "industrial nation"; that its military power has been developed only in response to U.S. initiatives; and that its foreign policy is to "defend revolution abroad" and based on "fear for Soviet security." (p. xi)

Brezhnev, we are told, "produced a considerable advance in living standards which affected all groups," and "it is important to remember that the Politburo decision to start importing grain . . . was not prompted by a domestic disaster, but by a con-

scious effort to improve Soviet diets." (p. 252) The dissidents are described as "troublemakers" who do not share the majority's support for "peace-loving" Soviet policies and its "disarmament initiatives." (p. 253) Furthermore, Soviet foreign policy is "internationally approved by a majority of the world community." (p. 254) And we learn on the next page that Chernenko has "received letters from thousands of Soviet patriots offering to work longer each week and put the money toward a national defense fund."

Carter and Reagan's abandonment of détente "came as a shock to Brezhnev and his colleagues," so much so that "once bitten, the Kremlin appears less eager to invest such hopes in détente again." Moscow now has a "sense of Washington's unreliability as a partner." (p. 260)

On the other hand, David Holloway of the *Washington Post* describes the book as "readable, straightforward, and factual."

Dr. Anthony T. Bouscaren  
Le Moyne College  
Syracuse, New York

**The Other Establishment** by Thomas B. Smith.  
Chicago: Regnery Gateway, 1984, 198 pages,  
\$18.95.

Thomas B. Smith's purpose in writing *The Other Establishment* is twofold: to familiarize the Western reader with the overlapping systems of identity documents used in Communist countries and to prove his thesis that the collection of data for and imposition of these documents gives the state near-perfect knowledge—and, hence, control—of individual citizens. In fact, control is the central theme of Smith's analysis.

Identity documents are a way of life in the Soviet Union. Every citizen is tracked from birth, through life, to death in the Soviet archives. Virtually all adults are required to possess an internal passport, a residence registration, and a work booklet. Further, all persons who served in the military or who hold reserve military status must carry a *voynennyi bilet* or military card. Smith details these and other official documents—along with Soviet regulations for their completion, use, and care—in excruciating detail. His contention that few Westerners are familiar with these documents is valid, and his presentation of the available open-source material goes far in correcting this lack of awareness.

The book, however, suffers from serious problems, not the least of which is its subtitle: "An In-depth Study of What Individual Life Is Really Like in Communist-controlled Countries." *The Other Establishment*, while making the claim on its jacket,

does not even come close to addressing everyday life behind the Iron Curtain. (Hedrick Smith's *The Russians*, published in 1976, remains one of the most readable books on this subject.) Instead, this book is a detailed description of archive-keeping and identity documents, primarily in the Soviet Union. A full one-third of the volume is devoted to pictures of Soviet and other Communist identity documents and long-quote citations from Soviet directives. Most of the remainder consists of line-by-line instructions on how to fill out the documents.

Second, Smith's translation and transliteration of Russian is inconsistent. His credibility is further injured by unfamiliarity with the Soviet military establishment, to wit: his treatment of the MVD *militsiya*, and border guards; and his references to several nonexistent military districts. (p. 129)

Finally, Smith's greatest shortcoming is his ascribing individual-control capabilities far in excess of those currently available to the Soviet government. The Soviets—and the Russians before them—have sought this capability for years. I could not help but be struck by the fact that Smith's "infringement of personal liberty" in requiring certain data (e.g., "social position") on the Soviet passport were the same "infringements" that I have seen when translating old tsarist passports. In other words, the *Russians* have not changed, nor have they been influenced by the ACLU. What Smith—and we—think about personal liberty is of no consequence to the Soviets. And, beyond that, Smith himself proves that—despite strict regulations and penalties for noncompliance—errors are still rife and the system fails. Thus, his control thesis is flawed. When better computers become available in the Soviet Union, a 1984 society may be fully realized. As yet, it remains a quest.

*The Other Establishment* is dry and of little interest to the average reader; it would be handy for a Soviet bureaucrat. If some of the biases were removed and the military-related sections corrected, it would provide a useful reference for the long-overdue examination of what life is really like in Communist countries.

Lieutenant Colonel Gregory Varhall, USAF  
Air War College  
Maxwell AFB, Alabama

**Terror and Communist Politics: The Role of the Secret Police in Communist States** edited by Jonathan R. Adelman. Boulder and London: Westview, 1983, 292 pages, \$25.00.

As editor Jonathan Adelman notes in the introduction of *Terror and Communist Politics*, Western



scholars have devoted little attention to the question of police terror in Communist systems, despite the importance of this question to our understanding of Communist politics. Clearly, a comparative approach to the issue has much to offer. By considering the role that police terror has played in establishing and perpetuating Communist systems in several countries, we might reach some general hypotheses about the relationship between police terror and communism. Unfortunately, however, this collection of essays falls far short of its stated purpose of providing a "theoretical framework for understanding secret-police activity."

After a five-page essay on communism and terror by Alexander Dallin, the contributors present case studies of police terror in six countries: Poland, the Soviet Union, Romania, Czechoslovakia, Hungary, and Cambodia. (For some reason, a chapter on education in the People's Republic of China has been tacked on at the end, although it has no relationship whatsoever to the main subject of the volume.) Two of these chapters, one by Walter M. Bacon, Jr., on the Romanian secret police and another by Condoleezza Rice on the Czechoslovakian secret police, are useful and informative, providing good summaries of the function and structure of the secret police in their respective countries. Ferenc Vali's chapter on the Hungarian secret police is also informative, but the fact that it is a reprint from a book written some twenty-three years ago detracts from its value.

The other three case studies—those on Poland, Cambodia, and the Soviet Union—suffer from serious weaknesses. The chapter on Poland, written by Michael Checinski, contains some interesting information but is poorly written, disorganized, and confusing. It is unclear what the author means, for example, by the statement that "the Communist terror apparatus, contrary to popular opinion, has never been an independent social power which tends to destroy its own Party, military elite, or other mainstays of the political system. It was never proven that 'irregularities' of the Soviet, Polish, or other Communist terror apparatuses were of a party 'overruled' and betrayed by the secret service." Has the author forgotten about the purges in Soviet Russia from 1936 to 1939 which decimated the ranks of the Party and the army? The case study of the Cambodian secret police, written by Kenneth Quinn, is not about the police at all but about Pol Pot and the Khmer Rouge, which was largely responsible for carrying out the terror in Cambodia. At some point in his study, the author mentions the secret police, called the Nokorbal, and notes that its role in the terror was small and that its existence was not widely known among the population.

Adelman's chapter on the Soviet secret police is disappointing, to say the least. Though it covers some fifty pages, only a scant seven pages deal with the period after 1953, which has been the most neglected by Western scholars. There are several misprints and factual errors. Adelman claims at one point, for example, that "in April 1954, the terror decrees of December 1954 were annulled. The frontier guards were now placed under the Red Army." Obviously, there is an error in the dates cited, and it is not clear what "terror decrees" the author has in mind. The frontier guards were not placed under the Red Army but remained under the MVD until 1957, when they were subordinated to the KGB. Adelman also makes no distinction between the secret or political police and the regular police, attributing to the former functions that belonged to the regular police.

The greatest problem with *Terror and Communist Politics* is its failure to provide an adequate analytical framework for understanding the role of the secret police in Communist systems. Adelman attempts to test the validity of certain models that Western scholars have applied to Communist systems in order to explain the role of police terror. Dismissing the totalitarian theory as "simplistic" and "unidimensional," he opts for what he calls a structural-functional theory, which implies that police terror in Communist systems is largely a rational process with rational goals. How then does this model explain Stalin's purges? According to Adelman, they were not as dysfunctional as we might assume but were "dictated by the tensions of the approaching World War II and Stalin's desire to consolidate his power before it started." Unfortunately, the attempt to discredit the totalitarian model and rationalize Communist police terror, which is apparently the book's purpose, is feeble and unconvincing.

Dr. Amy Knight  
Library of Congress  
Washington, D.C.

**The Soviet Control Structure: Capabilities for War-time Survival** by Harriet and William F. Scott. New York: Crane, Russak, 1983, 142 pages, \$7.95 paper.

Many Americans would probably say that the Soviet society is controlled closely by the Communist Party and that people there are somewhat constrained in what they are able to do on a daily basis. Most important, of course, is not what we think from our perspective but how the society is actually structured and functions. We cannot hope to achieve that understanding by mirror-imaging our own so-



ciety and its particular mores and institutions onto our image of the Soviet system.

Harriet and William Scott provide us with an incisive look at the Soviet system and the mechanisms that provide control of the general population as well as the Party, the government, and the Soviet Armed Forces. They base their analysis of the Soviet Union on their massive personal collection of published Soviet materials and their extensive personal experiences both living and traveling inside that country.

The intent of *The Soviet Control Structure* is not only to look at day-to-day control in the Soviet Union but also to examine how that system is designed and planned to function in the case of nuclear war. Control begins and ends with the Communist Party of the Soviet Union, which flows from the very highest levels of the Politburo down to the lowest town and village level. Positions in the Party and in the Soviet government are closely intermingled at each level, with many leaders holding power in both structures. While the Party is centrally controlled, the multilayering also provides for autonomy in the event of destruction of higher levels of authority during a war.

The tools of the Party's control over the society include the armed forces, the KGB, the Ministry of Internal Affairs (MVD), the militia, firemen, and civil defense forces stationed throughout the country. Each of these elements is in place and functioning on a continuous basis. The authority to declare martial law anywhere during a time of crisis would allow absolute control of the civilian population. While many of these groups exist under similar names in Western society, their purpose, power, and reason for existence are radically different within the Soviet Union.

The Scotts' explanation of the Soviet system and its control mechanisms is clearly written and understandable. The book's main shortcoming is its lack of a thorough critique of where the Soviet system breaks down and suffers problems. That sort of information is certainly suppressed by the Soviet leadership, but it can be ferreted out of the very sources that the coauthors relied on for research documentation. The absence of such a critique leaves out a vital ingredient for estimating how the Soviet Union might fair under conditions of extreme pressure and confusion such as nuclear war could create.

Major Don Rightmyer, USAF  
Mountain Home AFB, Idaho

**Soviet Policy in Eastern Europe** edited by Sarah Meiklejohn Terry. New Haven, Connecticut: Yale University Press, 1984, 375 pages, \$27.50.

This is one of the best books that have appeared on the subject of Soviet-East European relations. It is well edited, up-to-date, and, most important, superior to other edited volumes in the uniform high quality of its articles.

*Soviet Policy in Eastern Europe* contains twelve articles, which are divided between country-specific and regionally oriented studies. In the former category are articles by Angela E. Stent on Moscow and the German Democratic Republic, Andrzej Korbonski on Poland, Jiri Valenta on Czechoslovakia and Hungary, and William Zimmerman on Yugoslavia and Romania. The article by Stent is particularly noteworthy and makes clear that her reputation as the West's foremost authority on Soviet-German relations is fully warranted. Korbonski's article on the delicate subject of Soviet-Polish relations brings some much-needed rational analysis into a field that has been marked more by emotionalism than solid scholarship, especially over the past four years. The Valenta article provides a useful comparison of the 1956 Hungarian and 1968 Czechoslovak events, while Zimmerman's piece contains a useful introductory overview of Moscow's relations with Bucharest and Belgrade.

One of the key questions in Soviet-East European relations has been the hotly debated issue of Moscow's economic ties to the region and in particular the question of Soviet energy supplies to the area. The article by Paul Marer is a very useful introduction to the region's overall economic problems and is characterized by a relatively objective comparison of Marer's own position (i.e., Soviet subsidies for Eastern Europe have not been as high as often thought) with that of his main protagonist, Jan Vanous, who argues that Soviet subsidies have been substantial. Marer's attempt to treat Vanous's ideas in an evenhanded fashion—an altogether unusual occurrence in such articles—is to be commended. The piece by John P. Hardt on Soviet energy policy is very informative and devoid of specialist jargon; together with the Marer article, it argues convincingly that Eastern Europe is in for some heavy sledding in the economic area for the indefinite future.

Ross Johnson has long been considered one of the West's leading experts on the Warsaw Pact, and his chapter on that subject does nothing to detract from that reputation. It is a good introduction to the subject and illustrates the organization's strengths and weaknesses. Pierre Hassner's article on the impact of the East European factor on Moscow's West European policy is also of interest, as is Raymond L. Garthoff's article on U.S. policy toward the region. The latter represents one of the few scholarly articles available on the subject.

Finally, John Campbell and Sarah Terry provide useful overviews on the region and highlight the dilemmas faced by the Soviets. Terry puts it best when she notes:

In the thirty years since the death of Stalin, successive Soviet leaderships have tried with a singular lack of success to find a formula for stability in Eastern Europe: the proper mix of "viability and cohesion" that would both protect Moscow's perceived security, political and economic interests and, at the same time, ensure an adequate level of well-being and popular acceptance of local regimes. (p. 349)

There has traditionally been a tendency in the West to underestimate the problems faced by the Soviets throughout the world and overestimate our own. As this volume demonstrates, however, the Soviets continue to face serious problems in a key region and do not appear to have a ready-made solution for dealing with the area's many-faceted problems. And the problems are getting worse. The need for reforms of the region's outdated economic/political structures (assuming they were ever relevant) is becoming more pressing. Yet the Soviet leadership knows its Marx and Lenin well enough to realize that any reforms—even if directed at the economic sphere—have serious political implications. The recent Polish experience provided any doubters with a vivid demonstration of how quickly economic problems can spill over into the political arena in a highly politicized Communist system.

How then to solve the problem? The authors—wisely in my opinion—do not give an answer, although Terry provides some suggestions. The articles make clear, however, that Moscow will continue to find it very difficult to find a healthy mix between viability and cohesion. *Soviet Policy in Eastern Europe* is a must for anyone who wants to understand the current state of Soviet-East European relations and their profound implications for the West.

Dr. Dale R. Herspring  
Washington, D.C.

**A Lexicon of Marxist-Leninist Semantics** edited by Raymond S. Sleeper. Alexandria, Virginia: Western Goals, 1983, 392 pages, \$21.95.

Because Communists change the meaning of common words to deceive the "Free World," free people must study this language misuse if they are to preserve freedom and Western civilization. Semantical manipulation enables Communists to determine how people think.

These are the theses of *A Lexicon of Marxist-*

*Leninist Semantics*, a compendium of approximately 1500 terms culled primarily from Eric Vesely's "Lexicon of Communist Terminology and Usage" (USAF Foreign Technology Division, 1967). The terms are selected on the basis of "source, date, content, and function" and defined by means of illustrative quotations. Soviet leaders and newspapers are the most frequently cited sources, although non-Soviet Communist leaders and organizations are also quoted.

The *Lexicon* contains few technical definitions of military terms. Quotations cited to define concepts, such as the use of force, the role of Soviet Armed Forces, and disarmament (to name but a few), generally illustrate Communist views on war and peace. As a result, the book contains terms that would benefit from more precise explanations; "world balance of forces," for example, deserves more of a definition than just a quotation concerning the inevitable victory of socialism.

The editors give little attention to internal dissension, historical evolution, and source selection. In addition, because the citations are given without any historical, political, or philosophical context, they may mislead the reader in some cases. Nevertheless, the *Lexicon* can serve as a useful reference tool for readers willing to acquire the knowledge necessary to interpret its contents.

Hubert P. van Tuyll  
Texas A&M University, College Station

**Image and Reality: The Making of a German Officer, 1921-1933** by David N. Spires. Westport, Connecticut: Greenwood Press, 1984, 276 pages, \$29.95.

Previous authors of studies of the Reichswehr in the Weimar Republic have focused on its military-political relationships, attempting to understand the army's docile acceptance of Adolf Hitler's tyranny. Major David N. Spires, formerly an associate professor at the U.S. Air Force Academy, considers the focus of this concentration inappropriate, as he believes that the army's internal conditions were the most significant factor in determining its relationship with the government. Consequently examining the Reichswehr from within, Spires provides a comprehensive description of its officer personnel and training programs based primarily on captured German documents in the National Archives that focus on the Bavarian Seventh Division.

According to Spires, the Reichswehr had to perform the missions of combat readiness and cadre training under restrictions imposed by the Versailles Treaty that made success nearly impossible. Its



commanders—Generals Hans von Seeckt, Wilhelm Heye, and Freiherr von Hammerstein successively—desired to foster both technical military proficiency and the quality of character in their officers. Officer training achieved the former goal, but the objective of developing character proved more elusive. Under von Seeckt, character became synonymous with discipline and obedience. Throughout the Republic, training included little political or civics education. General Staff types consequently tended to be rigid and conformist in thought and seldom questioned higher authority. In these qualities lay the seed of the later capitulation to dictatorship.

Spires shows that under Heye's command, from 1926 to 1930, the Reichswehr performed its training missions best, with fewer evasions of Versailles and more cooperation with the Republic's officials. Heye, who is generally considered weak and vacillating, in fact pursued dynamic, forceful, and progressive personnel and training policies. Heye thus overshadows von Seeckt and particularly von Hammerstein, whose era receives relatively little attention in *Image and Reality*.

The study has a number of flaws. It lacks a general introduction that provides background and sets out the topics under discussion clearly—an acute necessity in a topically organized approach like the author's. Spires's apparent reliance on sources available in this country and his use of the Bavarian division as a case study for the entire Reichswehr raise questions about the validity of his evidence. Although personnel files in the German Federal Military Archive are not open, Spires did not explain whether he had inquired about relevant sources in other archives such as the Bavarian War Archive. The author's evidence of the harmony between the Berlin and Munich commands does not prove the representative nature of the Bavarian unit, which could be established only through a detailed comparison of all Reichswehr divisions. Finally, an unusually large number of spelling errors, misprints, and even an occasional unfinished sentence mar the book. Despite these limitations and problems, Spires's study certainly is an examination of a worthwhile and neglected topic, as the army's internal conditions were a critical determinant of its response to political crises.

Dr. John H. Morrow, Jr.  
University of Tennessee, Knoxville

**In War's Dark Shadow: The Russians before the Great War** by W. Bruce Lincoln. New York: Dial Press, 1983, 557 pages, \$25.00.

Bruce Lincoln is the author of several books on modern Russian history. He has written both nar-

rowly conceived research monographs for fellow academics and broadly conceived syntheses for popular consumption. One of his better known works of the latter kind was the very successful history, *The Romanovs*. *In War's Dark Shadow* is in this same mode.

A book must be judged by what it presumes to be or to do. Lincoln tells us modestly in the Foreword what he has in mind here: "This is the story of the Russians as they entered the twentieth century." The book is not addressed to the academic specialist. Lincoln does not set out to uncover new material, and he does not presume to wrestle with historiographical issues, especially not with the classic question about whether there would have been a revolution in Russia in or around 1917 without the coming of the war. He has written in the main a book for the general reader, for the educated public. I find no reason to regret this. We have a growing abundance of specialized literature for scholarly readers, and Lincoln has used just this literature on a very impressive scale in order to write a readable and yet reliable and accurate book for another kind of audience. We should rejoice: it is far better to have such works from qualified scholars than from perverse popularizers. And yet even the specialist may well learn something from the breadth of the treatment of the subject here.

One of Lincoln's main concerns is to characterize the disparate parts of Russian society. He does an admirable job with the Russian peasantry, the "dark people" of Russia, the class that was so notoriously mute and mysterious. Similarly, he treats us to a surprisingly full view of that often neglected class, the merchantry, concentrating on a few prominent merchant families, above all on the Morozovs. He does not do as well with the Russian nobility, which is ironic, in view of the superior literacy and, therefore, the relative accessibility of the gentry by comparison with the other classes.

In all of his description of the different classes of Russian society, Lincoln has done something eminently feasible and yet all too rare; that is, he has mined that great treasure of Russian fiction to add scope and depth to his characterizations. Chekhov and Turgenev are especially useful for both the nobility and the peasants, and Ostrovskii's plays add life to the portrait of the merchantry. This exploitation of Russian literature constitutes one of the major strengths of *In War's Dark Shadow*.

The Russians have long been notorious for their bungling of the Russo-Japanese War, and Lincoln's account of it makes one of the more interesting chapters of the book. Perhaps the most extraordinary tale told here, however, is also a rather unlikely one. It is



he story of the society and the mores—especially the bizarre sexual mores—of the Russian poets of the Silver Age. Andrei Belyi, Aleksandr Blok (who married, for a time in a celibate fashion, the daughter of Dmitrii Mendeleev, inventor of the periodic chart of the atoms), Viacheslav Ivanov, Dmitrii Merezhkovskii, Zinaida Gippius, Sergei Diaghilev, Valerii Briukov, and many others. They exemplified a fin-de-siècle malaise, which they sought to redeem in sexual expression both abstractly sublimated and conspicuously carnal. In the meantime, side by side with these gilded demigods was what Gorky called "the lower depths" (*Na dne*), the dregs of society; and at this social level, the aggravated sexual impulses of the era assumed very different forms. According to some estimates, more than 3 percent of the population of Saint Petersburg after 1905 consisted of prostitutes.

As a characterization of a society rather than a narrative history of it, Lincoln's book succeeds remarkably well. The flavor of Russian society of the period is here.

Dr. Hugh Ragsdale  
University of Alabama

**The Change in the European Balance of Power, 1938-1939: The Path to Ruin** by Williamson Murray. Princeton University Press, 1984, 494 pages, \$50.00 cloth.

Would England and France have been better off fighting Germany in 1938 instead of waiting until 1939? This is a question that has been argued sharply by historians and strategists ever since those fateful events. On one hand, there is a school of thought that argues England better utilized the time from Munich to Poland to improve her defenses markedly, especially Fighter Command; on the other hand, arguers stress that the Germans clearly gained the advantage in the period. The question has all the elements of a classic case for war-gamers, but there is not much doubt in author Williamson Murray's mind that the western Allies should have fought in 1938.

Deftly analyzing the strategic, military, and diplomatic background of the crisis, Murray claims that the Chamberlain government made the wrong choice on almost every question it faced. But why? Here the author concludes that at the center of the British governmental structure was an appalling lack of strategic perspective. He clearly points out that usually the British military assessments were based on a worst-case analysis, while British diplomatic assessments were the best-case type. The results were disastrous. Especially calamitous was the

persistent reluctance of the Chamberlain government to consider the use of force as a viable option. On the sticky question about whether British public opinion would have supported a strong response in 1938, Murray argues that the government followed slowly behind the public rather than leading it. For example, in rearmament the western Allies wasted much of their time until as late as the fall of Prague in March of 1939, while the Germans improved their capabilities steadily. He also faults these Allied powers for not driving Italy into the war immediately in 1939 instead of letting Mussolini select his own time. Again, it was a case of a lack of strategic perspective. He reserves his harshest judgment for the lackluster attempt by Allies in the west to organize a "grand coalition" with the Soviets. Chamberlain's unilateral commitment to Poland gave Stalin the opportunity to sell his services to the highest bidder.

There is much to be learned from *The Change in the European Balance of Power, 1938-1939*, a masterful exposition of how not to formulate a nation's grand strategy. The Chamberlain government never was able to judge or execute a consistent, effective response to Hitler. Fortunately, Hitler was to have similar difficulties throughout the war. As the author is fond of remarking, incompetency has always been an equal-opportunity employer.

This is simply the best book written on the topic. Murray's pithy asides and wry humor add to its charm. Murray's research, writing, and organization for the book are impressive, but the strength of the volume is in the analysis. Anyone interested or involved in how a nation formulates its strategic perspective would profit from reading this work. The military aspects of the crisis are analyzed carefully, but the major emphasis is on the broader formulation of a grand strategy.

Dr. Edward L. Homze  
University of Nebraska-Lincoln

**1939: In the Shadow of War** by Robert Kee. Boston: Little, Brown and Company, 1984, 369 pages, \$19.95.

History written without long spells in the archives and detailed studying of a myriad of sources can be difficult to write, with the potential of shallowness and nonacceptance by the historical community. Nevertheless, popular historian Robert Kee, using only newspapers as his sources, does a masterful job in his study of a single critical year, 1939: *In the Shadow of War*. The focus is on those political and military developments that would lead to the declarations of war in September 1939. The pivotal

nation was Great Britain, perhaps because she had the power and, indeed, the responsibility to play an important role vis-à-vis Adolf Hitler. In addition, Kee discusses and analyzes events in the United States and Nazi Germany, touching only lightly on developments in the Far East.

*1939* is more than a simple history looking toward the beginning of World War II in Europe. Relying on daily newspapers, Kee tries to show how difficult it was for people to know what was going on with only public sources of information available. The author points out that "newspapers do provide invaluable historical evidence not only of forgotten events but also of the way things looked before later events made them look different." (p. 1) This may have been what he was attempting to achieve, but Kee was aware of certain events after 31 December 1939, in spite of denials to the contrary. The most glaring example is the treatment of the Jews, which I believe Kee emphasizes more than he would have if he had been unaware of the holocaust.

Still, that criticism is only a minor quibble. *1939* is excellent history, exciting to read, free flowing, and capable of holding the reader's attention. It is not just political, military, and diplomatic history, for by following the newspapers that Kee presents, we see other events and developments that help convey a total picture of life and society. We learn about the Thomas Mooney case in California, a couple of murder cases from England, and life in Spain during the Civil War. The only difficulty with the book is not the author's problem but the reader's. From the first page on, one knows that 1 September 1939 is coming and that nothing can be done to prevent those horrible events from unleashing a terrible hailstorm over much of the world. That awareness provides a certain gloom as one reads the book.

Throughout *1939: In the Shadow of War*, there is one major message that comes across: do not appease dictators, especially dictators whose aims are clearly advertised. An important reason why World War II began was that the Franco-British policy of appeasement could not stop Hitler; only firm action offered the possibility of success. General Maurice Gamelin, Commander in Chief of the Allied Forces in France in 1939, said that "the future will be what we want it to be." (p. 344) Like 1914, the last year of the 1930s was not a good year for the world; let us hope that we can do better.

Dr. Alan M. Osur  
Colorado Springs, Colorado

**Montgomery in Europe, 1943-45: Success or Failure?**  
by Richard Lamb. New York: Franklin Watts,  
1984, 472 pages, \$18.95.

Richard Lamb wrote *Montgomery in Europe, 1943-45: Success or Failure?* "to attempt a definitive historical verdict on Bernard Montgomery's performance as commander in Sicily, Italy, and North-West Europe between July 1943 and May 1945." (p. 1) Due to Montgomery's unfortunate relations with other Allied military leaders, it may still be too early to evaluate Montgomery's performance objectively. Nevertheless, Lamb does bring out clearly one strand in the complex personality of Field Marshal Bernard "Monty" Montgomery—namely, his monumentally self-destructive tendency. In this short period of roughly two years, Monty managed to turn General Dwight D. "Ike" Eisenhower and most of his colleagues in the Allied Command against himself.

During the invasion of Italy, Montgomery's forces met little opposition when they landed on the Italian "toe." General Clark, on the other hand, was in desperate straits in the Salerno beachhead. In disobedience to General Alexander's orders, Monty made a leisurely advance to aid Clark in the north. According to Lamb, the bitterness of American generals toward Monty began at this point. (p. 47)

In Normandy, Monty provoked Ike by his hesitation to begin another attack on Caen. Monty angered British air marshals by promising them airfields around Caen, which he did not deliver. He thus raised their expectations and then let them down, a device guaranteed to provoke outrage in the victim. In Operation Goodwood, Monty was defeated. On 18 July 1944 he told his superior and strong supporter, General Brooke, that the battle had been a "complete success." (p. 120) Surprisingly, this failure to report accurately did not sour Brooke on his protégé.

After the American breakout in Normandy, the Allies nearly trapped a major portion of the German army of the west in the Falaise Gap. General Bradley's persistence and the American capability to close the gap are not the issue in Monty's relations with Allied officers. The point is that Monty refused to permit American officers to cross the inter-Allied army boundary. The Americans saw this refusal as they key factor in their failure to close the Falaise Gap. Even Lamb admits that Monty was at fault in this battle for not consulting with either General Eisenhower or General Bradley. (pp. 173-74) Monty had now turned American officers totally against him.

Ike arrived at Monty's headquarters with Bedel Smith on 23 August 1944 for a conference. To Smith's indignation, Monty insisted that Smith be excluded from the conference. Later, Monty ignored Eisenhower's order that Antwerp, a major port be



captured quickly. Monty's lack of response gave the Germans time to mine the Scheldt (which leads to Antwerp), and, consequently, no Allied ship could enter Antwerp until 27 November 1944.

Montgomery began a polemic against General Eisenhower's strategy. Monty wanted most of the Allied forces concentrated in the north under his command for a thrust through the North German Plain. Ike wanted to keep his options open for a spearhead either through northern or central Germany. Monty's strategic concept may have been sound, but his manner of presenting his strategic plan was self-defeating. His strategic demands continued to be made on Eisenhower in a constant and arrogant harangue over several months.

On 10 September 1944, Ike came to see Monty at Brussels. Lieutenant General Humfrey Gale, head of the administration at Supreme Headquarters Allied Expeditionary Forces (SHAEF), accompanied Eisenhower. Monty objected to Gale's presence and then lectured to Eisenhower contemptuously. Finally, Ike said to Montgomery: "Steady, Monty, you cannot talk to me like this. I am your boss." (p. 216)

Monty defeated himself in the airborne landing at Arnhem (Operation Market), when he refused to listen to the warnings of his own staff about the dangers of such an operation. The plan required XXX Corp to advance sixty-five miles in forty-eight hours on a single road through "boggy" country. Through failure of this operation, Monty lost his remaining support from both British and American leaders at SHAEF for his northern thrust into Germany.

After the Ardennes near-disaster, Monty wrote a very insulting and insubordinate letter to Ike. (pp. 323-24) General Eisenhower consequently began the process to remove Monty from command but relented when Monty expressed regret that his letter had upset Ike. In the final days of the war in Europe, Eisenhower assigned Montgomery to a subordinate role of protecting Bradley's northern flank and sealing the Danish Peninsula. Amazingly, Monty was surprised by his degradation and decided that Ike was deceitful.

Monty's self-destructive behavior produced chaos in the Allied Command, which Lamb ably documents. Lamb fails to answer the key question, however, of why Churchill and General Brooke continued to support Monty.

Dr. Kenneth J. Campbell  
Gallaudet College  
Washington, D.C.

Robinson. Volume I. Tucson, Arizona: 390th Memorial Museum, 1983.

Many have tried to tell the story of the bomber crews in the air war against Germany in World War II. Most influential were two novelists whose books were made into movies, Beirne Lay (*Twelve O'Clock High*) and William Haines (*Command Decision*). There have also been a number of autobiographical accounts, the best of which probably are the older works by Keith Schuyler and Bert Stiles, along with more recent books by Elmer Bendiner and Philip Ardery. Other sources of information on the bombing offensive are the shelves of unit histories, some written immediately after the war, others written more recently.

*The 390th Bomb Group Anthology* takes another approach. This edited volume is a collection of pieces written by members of the 390th Bomb Group. Some of the selections are as short as a paragraph, while one that runs nineteen pages covers all aspects of that unit's service during the war. The main strength of this collection is that the authors paint a vivid, colorful, and clear picture of their wartime service and thus capture the flavor of life in the 390th, as well as of the other American bomber groups in the war. A second strength is that by using multiple authors, the overall collection is well rounded in terms of chronology and scope. Not only are a variety of bombing missions described, but so are other missions such as supply of partisans, dropping of leaflets, and the repatriation of French prisoners of war. The ground story of both ground and air crews is also covered. Finally, some members of the unit who were shot down relate either their captivity or their escape. A third strength of this book is the fine set of photographs included, some printed for the first time and all clearly reproduced.

Flaws in the collection are minor. First, I would have appreciated information indicating when these various articles were written in order to distinguish between those written during the war and those written more recently. Second, the dates of the various incidents described would have been a welcome addition. Third, the collection, as good as it is, requires editing. Not only could some of the stories have been deleted, but others could have been trimmed. Finally, an index would have been useful.

These comments are made with the sincere hope that 390th will publish a second volume and that other units will follow their lead in this novel and fruitful approach. Overall, because this collection relates the air war in a wide scope, full of emotion, through the eyes of the participants, this collection is a success and makes a clear contribution to the

**The 390th Bomb Group Anthology** edited by Wilbert H. Richarz, Richard H. Perry, and William J.



history of the air war over Europe. While it may prove of greatest interest to the individuals and families of those who served with the 390th, anyone who wants to know "what it really was like" should read *The 390th Bomb Group Anthology*. The members of the 390th should be thanked, not this time for their proud wartime service, but rather for bringing that wartime service to life for those of us who were not there.

Dr. Kenneth P. Werrell  
Radford University, Virginia

**Drop Zone Sicily: Allied Airborne Strike, July 1943**

by William B. Breuer, Novato, California: Presidio Press, 1983, 212 pages, \$15.95.

The Allied invasion and conquest of Axis-held Sicily in 1943 is a story often told but now largely consigned to history. It is among the more controversial military operations of World War II. As we bask in the afterglow of the fortieth anniversary of the historic Normandy invasion, it is fitting to reflect on the Sicilian campaign as well.

Code-named Operation Husky, the Sicilian campaign was a necessary, albeit costly, precursor to Operation Overlord the following year. Operation Husky was, by any measure, a risky undertaking. Indeed, it was the first large-scale combined airborne-amphibious operation conducted by the Allies in World War II. Here were sown the seeds of cooperation (and conflict) that were to bear fruit in the ultimate defeat of the Axis powers on the continent of Europe. Here, too, were born the strategy and tactics for future large-scale airborne assault operations.

*Drop Zone Sicily* is among the latest in recent accounts of Operation Husky. It may well be the best. As the title suggests, William Breuer's primary focus is on the airborne phase of the operation. Breuer has written a dramatic, fast-paced, factual account of the airborne assault and follow-up operations in Sicily. As General Gavin observes eloquently in the Foreword, "Drop Zone Sicily is a significant and thoughtful book. It is significant because it [Operation Husky] was America's very first effort at committing troops to combat by air on a regimental scale and because the airborne assault cracked open Hitler's *Festung Europa* (Fortress Europe) for the first time. This book is thoughtful because the author has gone to great lengths in digging out the facts behind that airborne operation." This is high praise, indeed; and it comes from a distinguished soldier and paratrooper who commanded the U.S. 505th Airborne Regimental Combat Team that led the airborne assault on Sicily and

who later commanded the 82d Airborne Division, becoming (at age thirty-seven) the youngest American two-star general since the Civil War.

The praise is altogether justified. Breuer has captured the essence of war, warts and all, as he recounts in vivid detail the controversy, danger, uncertainty, fear, panic, and courage that attended this historic operation. Moreover, as General Gavin points out, Breuer has written a ringing testimonial to "the courage of young Americans in their baptism of fire against an experienced and skilled foe."

*Drop Zone Sicily* is a superbly written, thoroughly researched contribution to the literature on airborne warfare. It deserves a wide audience.

Colonel Thomas B. Vaughn, USA  
Air War College  
Maxwell AFB, Alabama

**The Big Drop: The Guns of Merville, June 1944** by

John Golley. London: Jane's, 1982, 174 pages, \$19.95.

On the night of 5 June 1944, only a few hours before the massive Allied invasion of Normandy took place on the long-awaited D-day, a force of approximately 750 British paratroopers commanded by Lieutenant Colonel Terence Otway was dropped behind enemy lines near the village of Merville, located about a mile from the French seacoast east of the city of Caen. The mission of this group was to put a strategically situated gun battery out of action. This battery, it was feared, might otherwise rake with devastating fire the critically important beaches, code-named Sword, Gold, and Juno, where British and Canadian units were to come ashore the following morning.

Unaware that much of the area in which they were to land had been flooded under orders of Field Marshal Erwin Rommel, many of the skyraiders were drowned before they had a chance to rendezvous with their comrades. Years later, their bones were still being exhumed by the plows of Norman farmers. In the end, it was left to about one hundred men to storm the battery just before dawn, charging through a minefield swept by machine-gun fire. Despite the odds, they were successful: after a savage half-hour fight, the guns, which turned out to be relatively antiquated French 75s, were put out of commission. Regrouping what remained of his badly mauled contingent, Otway then occupied the Château St. Come and the high ground around it, overlooking the strategically critical west bank of the Orne River and the Caen Canal. There, ringed by numerically superior German infantry, artillery, and tank units, he and his beleaguered force held off repeated attacks

over a grueling six-day period, thereby making a substantial contribution to the success of the Allied invasion.

Such is the story told in this highly absorbing book by former RAF pilot John Golley, who flew Hurricanes and Typhoons in support of Allied operations in Normandy during those fateful days. Now the co-owner of a British advertising agency, Golley has painstakingly assembled the reminiscences of sixty-seven survivors of the actions he describes, including those of Otway himself, in addition to examining available secondary sources written by such persons as General Sir Napier Crookenden, G. C. Norton, Cornelius Ryan, and Hillary St. George Saunders. Commencing with Otway's prewar career as a cadet at Sandhurst and an officer with the Royal Ulster Rifles in China and India, Golley recounts various incidents showing his chief protagonist's stubbornness and independence of mind and then traces Otway's various assignments in World War II until he was given the task of leading the assault on the Merville battery in early April 1944. After several chapters relating to Otway's meticulous planning for the operation and the exceptionally arduous training undergone by the red-bereted paratroops chosen to take part in it, Golley properly devotes the bulk of the volume to the details of the fighting that took place from 5 June through 12 June, concluding with a brief retrospective look at what has happened to the surviving "Paras" and the small but vividly remembered section of Normandy where these men performed with such determination and valor.

Golley does not command either the literary skills of a Cornelius Ryan or the professional abilities of the late Gordon Prange, and the reader may occasionally get lost in the flashbacks through which the experiences of individual participants in the Merville action are traced. No matter; this is a valuable work that fills with distinction an important niche on the ever-growing World War II bookshelf. Resolutely avoiding any tendency to glamorize the dirty business of warfare, Golley supplies vivid and unforgettable details of brave but terrified men vomiting over each other's backs as they prepare to plunge into the darkness from the cramped interiors of C-47 Dakotas which had managed to weave their way through heavy anti-aircraft fire; of a stoic Norman farm family enduring torture and death at the hands of German forces after rescuing, hiding, and feeding paratroops who had stumbled upon their property when making their way out of the artificial swamps that Rommel's flooding had created; and of a shattered and exhausted Otway looking on himself as a failure, despite being decorated with the Distin-

guished Service Order, after being relieved of his command in mid-June 1944 simply because he was physically unfit to carry on. *The Big Drop* is a very good book which carries about it an unmistakable air of authenticity. Its author has been in the crucible himself and knows whereof he writes.

Dr. W. David Lewis  
Auburn University, Alabama

**Herman the German: Enemy Alien, U.S. Master Sergeant #10500000** by Gerhard Neumann, New York: William Morrow and Company, 1984, 277 pages, \$15.95.

As we learned from television coverage of the fortieth anniversary of D-day, it was an Army sergeant who suggested taking the jagged pieces of steel left behind on the beaches by German troops and welding them to the front of American tanks so that the tanks could cut their way through the Normandy hedgerows without stalling. Across the globe in China, a German-born Army Air Corps sergeant gained such notoriety for recurring deeds while serving as an aircraft mechanic during the war that he was made a naturalized American citizen by a special act of Congress signed by President Truman in 1946.

"Herman the German," so nicknamed by his comrades in arms, is the title chosen for this fast-paced autobiography of the Air Corps sergeant, Gerhard Neumann, whose wartime exploits were followed by a meteoric career at General Electric. Born to "Jewish German" parents (a term the family preferred to "German Jews"), he attended Germany's oldest technical college (Ingenieurschule Mittweida) from 1935 to 1938 and then responded to a bulletin-board notice stating that Generalissimo Chiang Kai-shek was looking for young mechanical engineers to work on the Chinese mainland. Accepted into the group, Neumann flew to the Orient in a French Dewoitine trimotor (only nine of the planes were ever built)—an account that he telescopes into seven pages but which needs only the appearance of Hercule Poirot to provide the basis for a separate TV or movie epic. Stranded in Hong Kong (the Nationalists had left town with no forwarding address), Neumann wasted no time finding a job as chief auto mechanic at the city's best garage (overhauling the Governor's British Daimler in short order). But the reverberations of the fall of France, in June 1940, led to an order expelling all German citizens from Hong Kong. Saved in the nick of time by an American official whom he met in an elevator, Neumann was allowed to join General Claire Chennault's American Volunteer Group (the Flying Tigers), for whom his first job was to shep-



herd some badly needed diesel trucks from Kunming to the Burmese frontier. When that was accomplished, General Chennault prevailed on the U.S. Secretary of War, Henry L. Stimson, to get enlistment papers for Neumann in the Army Air Corps.

Sworn in as a staff sergeant on 4 July 1942, Neumann was off on a breathtaking Army career, begun by putting together the pieces of the first Japanese Zero captured after Pearl Harbor (so that it could be taken to the United States and studied) and ending with a trip to Washington to brief General William Donovan, head of the Office of Strategic Services on the desperate state of affairs among Chinese ground forces serving under Chennault.

After the war it was much the same: fixing cars for Boris Karloff and other Hollywood celebrities; repairing afterburners on early postwar jet engines at Douglas Aircraft; then finding time to marry and drive his wife and an Airdale terrier across Asia and the Middle East to Jerusalem in a jeep.

There is the stuff of Harry Truman's oral biography, "Plain Speaking," here, mixed with all the entertainment of a Bob Hope and Dorothy Lamour movie on the road to somewhere. But Neumann is Neumann, not Truman; and the reader will find it difficult to appreciate that when Herman the German grabbed some horse manure to fix a leaky heat exchanger while someone was out to lunch at General Electric, this was an important first step on the road toward development of the variable stator jet engine, for which Neumann and others of an Air Force-industry team were awarded the Collier Trophy, aviation's top award, in 1958.

Given Neumann's lifetime of diverse activities, his parting words in his account provide something of an anticlimax. Stricken with a heart attack that called for by-pass surgery and early retirement, he waxes philosophic about a life that evidently kept him from seeing much of his wife and family. "Climbing the ladder of success [at GE] was made easy for me, and I was rewarded handsomely," he says. But the price he also paid was "very high." Would he do it all over again the same way? Well, that's a question that he says he won't answer, but he does say that he would like to "alert ambitious go-getters to ponder very carefully the problems that go with accepting promotion to a top position and the price they will have to pay, before they say [as Neumann did over and over again], 'Yes, sir. Thank you.'" While few executives can recount a Horatio Alger story as riotous as Herman the German's, there must be legions whose tales would have similar endings.

William Welling  
New York City, New York

**Combat World War II: European Theater of Operations** edited by Don Congdon. New York: Arbor House, 1983, 749 pages, \$24.95.

**Combat World War II: Pacific Theater of Operations** edited by Don Congdon. New York: Arbor House, 1983, 750 pages, \$24.95.

*Combat World War II: European Theater of Operations* and *Combat World War II: Pacific Theater of Operations*, edited by Don Congdon, are a collection of "battle pieces" that were originally published in inexpensive paperback versions over two decades ago. They have been reissued as expensive hardbound volumes. One has to wonder why. It is even more perplexing that these two books should have been chosen as alternate selections by a major book club. With the exception of new Forewords, by Herbert Mitgang, which contribute nothing to the volumes, these books stand as they did when they first appeared in the early 1960s. No changes, additions, or amplifications have been offered.

For the professional historian or military person, these volumes offer nothing that could possibly justify their cost. Even the most determined buff will find these two books of only moderate interest.

Considering the amount of both primary and secondary material that has appeared since the first publication of these volumes, these books stand out as dated and uninformative. With one or two exceptions, all the materials presented are easily available in their complete form. Certainly, no one would claim that these works are classics.

One must conclude (and this conclusion is reinforced by the packaging) that these books were republished to garner money from an unsuspecting public. For anyone seriously interested in World War II, these books are of virtually no interest. For someone just starting the study of that great conflict, they might have limited value in their earlier inexpensive format. One would be hard-pressed to find any justification for purchasing these two volumes, even for a library.

Dr. W. Robert Houston  
University of South Alabama

**Perilous Missions: Civil Air Transport and CIA Covert Operations in Asia** by William M. Leary. Tuscaloosa: University of Alabama Press, 1984, 281 pages, \$22.50.

Historical studies of aviation history with a real grasp of operational reality are as scarce as hens' teeth: those with authentic "feel" are mostly inadequately researched and written for buff audiences, while professionally researched and documented



studies tend to be written at a level of operational abstraction far removed from the reality of flying as the aviation professional knows it. *Perilous Missions* is a notable exception.

Civil Air Transport (CAT) began in 1946 in a union of temperament, if not background, between General Claire Chennault and Ivy League lawyer-turned-soldier-of-fortune Whiting Willauer. Their quixotic determination to build a commercial airline on the economic wreckage of post-World War II China overcame a staggering array of political, economic, and operational obstacles, only to become engulfed in China's bitter Civil War as a loyal, if unofficial, adjunct to a frequently unserving Chinese Nationalist Air Force. Evacuating to Taiwan on the heels of its sponsor, Chiang Kai-shek, the Civil Air Transport faced extinction but subsequently was preserved by Central Intelligence Agency subsidies, which ultimately drew the airline deeply into supporting the French in Indochina.

Although this involvement produced CAT's finest hour in dogged support of the French garrison at Dien Bien Phu, it linked the name of the carrier inextricably with that of yet another lost cause. This linkage—helped along, no doubt, by Chennault's independent irascibility—led the CIA to shift its support to newer and less tainted names, notably Air America, leaving Civil Air Transport to drift on toward a lingering death in 1968.

The above summation provides only the barest outline of a rich and complex story, filled with an amazing cast of characters to whom William Leary does proper justice, often wiping away the cobwebs of legend to present an even more incredible reality. That cast reads like something out of "Terry and the Pirates": In addition to Chennault and Willauer, we find such larger-than-life figures as Alfred T. Cox, distinguished engineer turned OSS agent, the CIA's "control" for CAT and ultimately its acting president; Robert E. Rousselot, strikingly handsome ex-Marine who ruled CAT's aircrew roster with an iron hand as chief pilot; and the legendary pilot James B. McGovern, alias "Earthquake McGoon," who weighed more than 300 pounds and whose heroic death at the hands of a Communist 37-mm anti-aircraft gun that downed his C-119 near Dien Bien Phu on 6 May 1954 put the lie to sneers about mercenary "Yankee Air Pirates" and, at least among American airmen, marked a watershed in the U.S. commitment in Southeast Asia.

Leary puts romantic misconceptions to rest wholesale and lays out for inspection the realities behind them: Civil Air Transport pilots did not make enormous sums of money; \$800 to \$1000 per month, with a \$10.00 per hour combat bonus (with no gov-

ernment survivor's benefits), was standard during the Dien Bien Phu airlift. They did, however, fly their tails off on occasion. One C-46 captain, for example, logged twenty-one hours and forty-five minutes during a single twenty-four-hour period on 3 March 1949 during airlift operations in support of the isolated Nationalist city of T'ai-jüan—an epic operation that rivaled the Berlin airlift in scope and exceeded it in operational difficulty. The airline's management was not a mere front for the CIA; indeed, the independence of mind of CAT's founders probably had as much to do with its demise as their staunch, and ultimately futile, support of anti-Communist causes which led them to accept CIA money and the operational control that went along with it.

Best of all, Leary writes with a clear understanding of the practical difficulties of transport aviation under primitive conditions. He moves with much agility from the briefing room to the boardroom, from the pilot's world of radio-range approaches with 300-foot ceilings and no alternate to the Chinese banker's world of politics, high finance, and corruption, connecting the problems of the one with those of the other.

*Perilous Missions* is a fine study, as well documented as the still-classified nature of much of the source material would permit; it is smoothly written, well illustrated, and nicely produced. Both author and publisher are to be congratulated. We can look forward with anticipation to Leary's projected study of Air America.

Dr. J. F. Guilmartin, Jr.  
Rice University  
Houston, Texas

*Airlines of the United States since 1914* by R. E. G. Davies. London: Putnam, 1972; revised reprint, Washington Smithsonian Institution Press, 1982, 746 pages, \$35.00.

The development of today's air transportation system in the United States has often been chaotic and has usually been very complex. In his history of that development, R. E. G. Davies, who occupies the Charles A. Lindbergh Chair of Aerospace History at the National Air and Space Museum, details the changes that have resulted in today's airline network. His *Airlines of the United States since 1914* is a monumental work.

The author devotes almost half of the 577 narrative pages to pre-World War II domestic and American flag airlines, large and small. Throughout the volume, Davies develops the personalities of the industry leaders and promoters who put together the

pioneer lines and then engaged in often-bitter struggles for either independent corporate existence or merger into the giants of the 1930s and succeeding decades. However, he does not neglect the "little guys" of air transport management, often picturing them as giants in their own rights. His portraits of such figures as "Pop" Hanshue, Walter F. Brown, Clement Keys, Thomas Braniff, and Juan Trippe are especially useful, as are treatments of Major General Jimmy Doolittle and Howard Hughes during later eras.

The extension of Pan-American Airways throughout South America and then into the Pacific and Atlantic through political manipulation coupled with good management is one of the book's highlights. Complementing this story of expansion is that covering the establishment of the domestic "Big Four."

The author describes the status of America's civil air transport system at the beginning of World War II, the operational and training roles undertaken by the airlines during the war years, and the roles of the airlines in establishing the Army's Air Transport Command and the Naval Air Transport Service. Noting that the nation's air carrier potential was in a position of overwhelming strength as the war ended, Davies fully investigates the extension of U.S. airline routes into truly worldwide service. While doing so, he also details the rise and interrelationships of the air taxi and regional lines with one another and with the trunk carriers.

Davies describes the many technical advances that accompanied or drove airline organizational changes.

Well-chosen photographs of all the significant transport aircraft, from early mailplanes through the Concorde, accompany the text at appropriate places. The author's discussion of these aircraft is thorough, correct, and directed toward their significance at the time of their introduction and service. He also describes the development of the engines that powered those aircraft. These aspects of the book add considerably to its overall attractiveness and utility.

The author also emphasizes the role of government regulation in the history of U.S. airlines. The many major and minor controls and subsidies affecting safety, aircraft design, rates, and routes are all there. Rather than issue a second edition of the original 1972 publication, the author has updated relevant chapters through mid-1982. In addition, he has included an appendix titled "Essay on Deregulation," a history of U.S. airline operations and problems during this intervening decade. A remarkably fair treatment of Civil Aeronautics Board actions before and after the Deregulation Act of 1978 characterizes his essay and brings "sharply into focus the basic issue: is air transport simply a means of making money, or is it a public service, in the conduct of which the public must be protected?"

*Airlines of the United States since 1914* is quite likely to be the definitive history of U.S. airlines, made even more meaningful in this second printing by reflecting the real world of deregulation and cut-throat competition.

Dr. Don E. Albert  
Air Force Test and Evaluation Center  
Kirtland AFB, New Mexico

# AR

## the contributors



**Dennis E. Showalter** (B.A., St. John's University; M.A., Ph.D., University of Minnesota) is Associate Professor of History, Colorado College. He is editorial consultant to Archon Books and has been a member of the Editorial Advisory Board of *Military Affairs*. Dr. Showalter is author of *German Military History since 1648: A Critical Bibliography* (1983), *Little Man What Now? Der Stürmer in the Weimar Republic* (1982), and *Railroads and Rifles: Soldiers, Technology, and the Unification of Germany* (1975).



**Phillip A. Petersen** (B.S., Central Michigan University; M.S., Western Michigan University) is Assistant for Europe in the Policy Support Program of the Deputy Under Secretary of Defense for Policy. He has served as a research analyst for both the Library of Congress and the Defense Intelligence Agency, and he has been an instructor at the University of Illinois. Petersen has appeared before U.S. congressional committees as an expert witness on Soviet air power and has briefed the NATO Military Committee, SHAPEX, major subordinate NATO commands, and the defense ministries of several West European nations. His articles have appeared in *Military Review*, *The Wall Street Journal*, *International Defense Review*, and a variety of other publications.



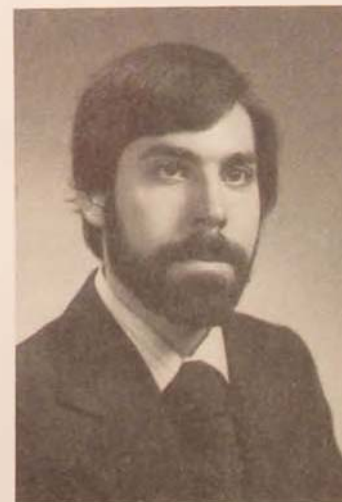
**Ilana Kass** (A.B., Hebrew University of Jerusalem; Ph.D., Hebrew University of Jerusalem and Columbia University) is a Senior Analyst with Systems Research and Applications Corporation, Arlington, Virginia, an Adjunct Professor of Soviet Military Studies at Georgetown University, and a frequent guest lecturer at the National War College. Dr. Kass has been a senior analyst with the Advanced International Studies Institute, Bethesda, Maryland, and senior lecturer at the Israeli Defense Forces Staff College, Jerusalem, Israel. She has contributed previously to numerous journals, including the *Review* and recent issues of *Comparative Strategy* and *Strategic Review*.



**Jonathan R. Adelman** (B.A., Columbia College; M.A., Ph.D., Columbia University) is Assistant Professor in the Graduate School of International Studies at the University of Denver and serves as Senior Research Analyst for the Foreign Systems Research Center of Science Applications, Inc. Dr. Adelman is the author of *The Revolutionary Armies: The Historical Development of the Soviet and the Chinese People's Liberation Armies* (1980) and editor of *Communist Armies in Politics*.



**Major John R. Clark** (B.S., Central Missouri State University) is Deputy Chief, Foreign Materiel Program, Hq USAF Intelligence. He has extensive worldwide operational experience as an electronic warfare officer in EB-66, B-52, and RC-135 aircraft. Major Clark has also served as a section chief in the Soviet Warsaw Pact Division of the Defense Intelligence Agency. Major Clark is a graduate of Squadron Officer School, Air Command and Staff College, and Air War College.



**Ethan S. Burger** (A.B., Harvard University) is a Research Associate with Systems Research and Applications Corporation.





Lieutenant Colonel Harry J. Kieling, Jr. (B.A., University of Arizona; M.S., Troy State University), is Deputy Chief, Exercise Section, Hq Allied Air Forces Southern Europe, Naples, Italy. He is an experienced fighter pilot and served as an A-10 squadron commander at Suwon AB, Korea. Colonel Kieling is a graduate of Squadron Officer School, U.S. Army Command and General Staff College, and the Industrial College of the Armed Forces. His articles have appeared in *Fighter Weapons Review*, *Military Review*, and *TAC Attack*.



Alan F. Wilt (B.A., DePauw University; M.A., Ph.D., University of Michigan) is Professor of

History at Iowa State University. In 1982-83, he was a visiting professor of military history at Air War College, Maxwell AFB, Alabama. His books include *The Atlantic Wall: Hitler's Defenses in the West, 1941-1944* (1975) and *The French Riviera Campaign of August 1944* (1981). Dr. Wilt is a previous contributor to the *Review*.



Williamson Murray (B.A., M.A., Ph.D., Yale University) is an Associate Professor of History and Director of the Military History and



Strategic Studies Program at Ohio State University. He served as a Research Associate at the Airpower Research Institute, Maxwell AFB, Alabama, and as a maintenance officer while in the U.S. Air Force from 1964 to 1970. Two of his books are *Strategy for Defeat: The Luftwaffe 1933-1944* (Air University Press, 1983) and *European Balance of Power, 1919-1939: The Path to Ruin* (Princeton University Press, 1984). Dr. Murray is a previous contributor to the *Review*.

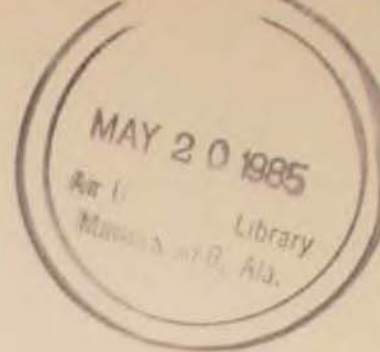


Lieutenant Colonel Barry D. Watts (USAF, M.A., University of Pittsburgh) is a military assistant to the Director of Net Assessment, Office of the Secretary of Defense. Previously, he has served as Red Team Chief for Project Checkmate at Hq USAF; Air Officer Commanding, 30th Cadet Squadron, USAFA, and a U.S. Air Force Academy instructor. Prior to that, he flew F-4s, including a combat tour in Ubon, Thailand. Colonel Watts is the author of *The Foundations of U.S. Air Doctrine*, which will be published by Air University Press this spring. His articles have appeared in numerous journals, including the *Review*.



## AWARD

The *Air University Review* Awards Committee has selected "Low Intensity Conflict: Concepts, Principles, and Policy Guidelines" by Dr. Sam C. Sarkesian as the outstanding article in the January-February 1988 issue of the *Review*.



## Professional Staff

LIEUTENANT COLONEL DONALD R. BAUCOM, USAF, *Editor*  
JANICE M. BECK, *Managing Editor*  
MAJOR EARL H. TILFORD, JR., USAF, *Associate Editor*  
JOHN A. WESTCOTT, *Art Director and Production Manager*  
ENRIQUE GASTON, *Associate Editor, Spanish Language Edition*  
LIA MIDOSI MAY PATTERSON, *Associate Editor, Portuguese Language Edition*  
STEVEN C. GARST, *Art Editor and Illustrator*  
HATTIE DIXON MINTER, *Copy Editor*

## Advisers

COLONEL KENNETH J. ALNWICK, *Senior Fellow, SCDC, National Defense University*  
COLONEL ALAN L. GROPMAN, *Deputy Director for Planning Integration, Hq USAF*  
LT. COLONEL JOHN F. GUILMARTIN, JR., USAF (RET), *Immediate Past Editor*  
MAJOR GENERAL I. B. HOLLEY, JR., USAFR (RET), *Duke University*  
FRANCIS W. JENNINGS, *Air Force Service Information & News Center*  
DR. RICHARD H. KOHN, *Chief, Office of Air Force History*  
COLONEL DONALD E. ROSENHOVER, *Dean, Air War College Resident Program*

AIR  
UNIVERSITY  
**Review**

MAXWELL AFB, AL 36112

SPECIAL FOURTH CLASS MAIL  
CALCULATED POSTAGE  
PERMIT G-1  
USAF-ECI  
GUNTER AFB, AL 36118

---

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE \$300  
RETURN POSTAGE GUARANTEED



*The Professional Journal of the United States Air Force*



AIR  
UNIVERSITY

# review

MAY-JUNE 1985

