



AIR UNIVERSITY **review**

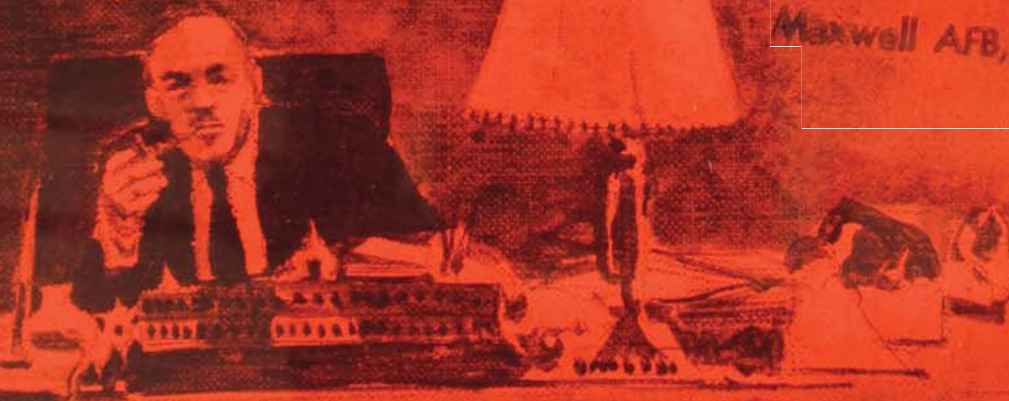
JANUARY-
FEBRUARY
1971



Air University Library

FEB 17 1971

Maxwell AFB, Ala. 36111



**Soviet
strategist**



AIR UNIVERSITY review

THE PROFESSIONAL JOURNAL OF THE UNITED STATES AIR FORCE

SOVIET STRATEGY FOR THE SEVENTIES	2
Lt. Col. Donald L. Clark, USAF	
POWER, STRATEGY, AND WILL	19
Col. Ralph L. Giddings, Jr., USA (Ret)	
LABOR-MANAGEMENT RELATIONS IN THE AIR FORCE	27
Col. Joseph E. Hearn, USAF	
THE AIR FORCE AND THE SPACE TRANSPORTATION SYSTEM	34
Lt. Col. Donald L. Steelman, USAF	
THE ROLE OF COMMUNIST IDEOLOGY IN INSURGENCY	42
Charles A. Russell	
Maj. Robert E. Hildner, USAF	
Air Force Review	
TRUONG CHI-HUY VA THAM-MUU	49
Maj. Albert D. McJoynt, USAF	
Maj. Joseph R. Sanchez, USAF	
Maj. Fraine C. Zeitler, USAF	
In My Opinion	
INTERDICTION—A DYING MISSION?	56
Capt. Robert O. Heavner, USAF	
ONE OF OUR SOCIAL SCIENCES IS MISSING	60
Dr. John J. Marsh	
Books and Ideas	
PREPLANNING THE USAF: DOGMATIC OR PRAGMATIC?	63
Dr. Robert F. Futrell	
THE CLASSLESS YOUNG MAN AND THE NAZIS	69
Col. John L. Sutton, USAF	
AT LONG LAST, A HISTORY OF THE EIGHTH AIR FORCE	72
Dr. Kenneth Philip Werrell	
THE CONTRIBUTORS	79

Address manuscripts to: Editor, Air University Review Division (ASI/REV), Bldg 1211, Maxwell AFB, AL 36112. Printed by Government Printing Office. Address subscriptions to Superintendent of Documents, GPO, Washington DC 20402: yearly \$4.50 domestic, \$5.75 foreign; single copy 75¢. For back issues mail check or money order to Book Department, DSMB, Maxwell AFB, AL 36112. Back issues: domestic 75¢, foreign 90¢.

Vol. XXII, No. 2 JANUARY-FEBRUARY 1971

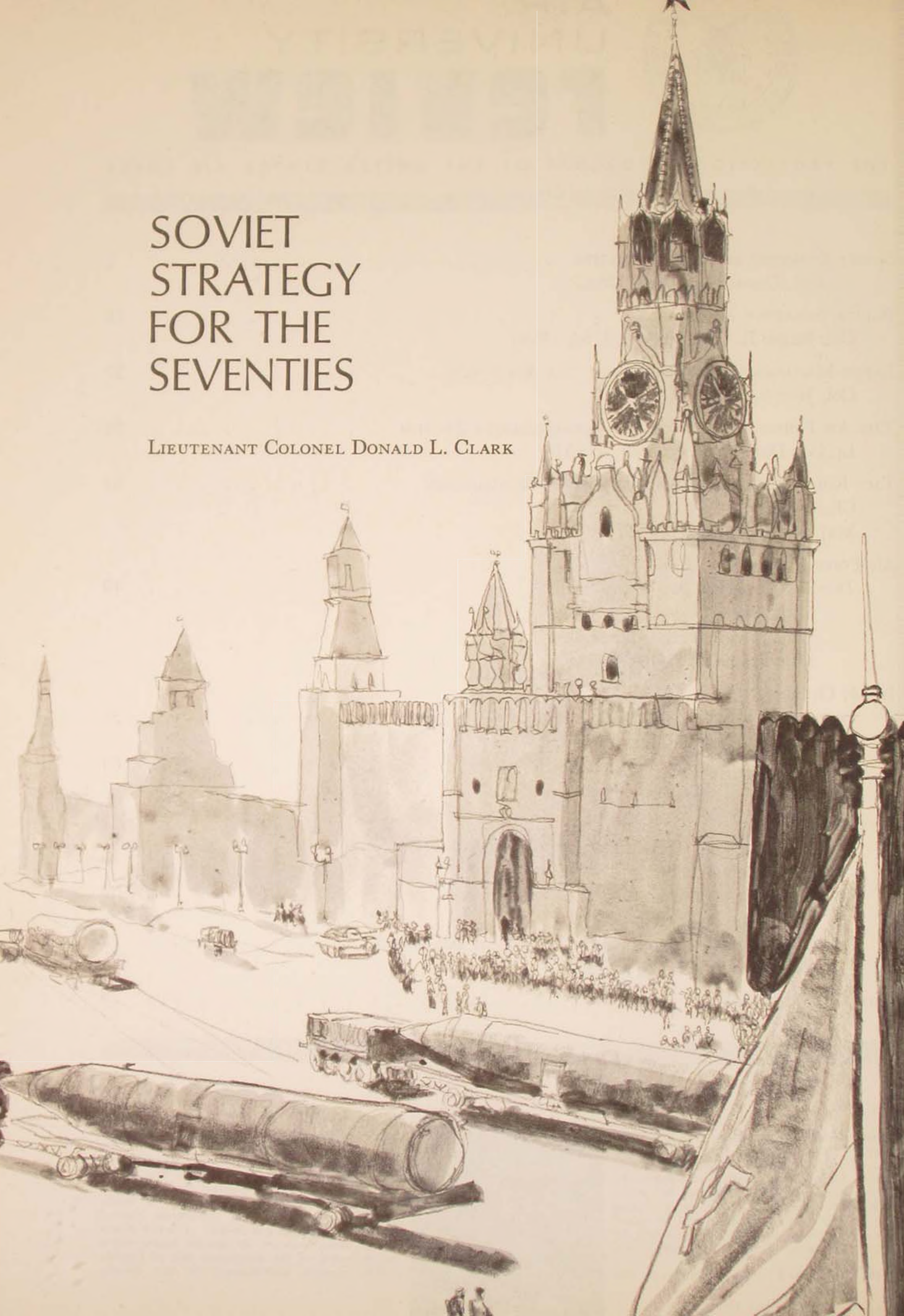


the cover

Dominated by the dour presence of Lenin, whose birth centennial was celebrated in 1970, the Soviet strategist for the seventies is confronted by a spectrum of alternatives ranging from peaceful coexistence and cooperation to the inevitability of nuclear war and the need to ensure being on the winning side. Lieutenant Colonel Donald L. Clark, long a student of Soviet Russia and a recent assistant air attaché there, writes knowledgeably of the alternatives and of possible Soviet strategic developments in this decade.

SOVIET STRATEGY FOR THE SEVENTIES

LIEUTENANT COLONEL DONALD L. CLARK



THE Soviet Union early in this decade can count more problems than blessings. Communist China is pressing on her border and challenging her control of Communism. Eastern Europe is temporarily quiet; however, Czechoslovakia revealed the festering sickness there, and the Soviet invasion was a sedative rather than a cure. The cost of military competition with the United States is spiraling out of sight. Meanwhile, economic and agricultural inefficiency and an outdated philosophy are combining to reduce her previously excellent industrial growth rate. Her political bureaucracy stifles needed reforms in the name of comfortable status quo. Her youth, intelligentsia, and scientific elite grow restless, questioning and challenging the tenets of Communism. But the U.S.S.R. cannot forestall decisions indefinitely, and one which she may already have made could have a lasting impact on all mankind—the decision regarding her *worldwide strategy for the seventies*.

The spectrum of alternatives from which the Soviet leaders choose that strategy is a broad one. On the one extreme is the choice advocated by Dr. Andrei Sakharov, a leading Soviet physicist, in his now famous essay, *Progress, Coexistence, and Intellectual Freedom*. It is a strategy not only of peaceful coexistence but of peaceful cooperation to eliminate the danger of nuclear war, to desist from political subversion, and to raise the living and social standards of the world's masses. On the other extreme is the hard line espoused by men like Marshal Nikolai Ivanovich Krylov, commander of Soviet Rocket Forces. To them, nuclear war is inevitable, and they must insure that the U.S.S.R. is prepared and will be the victor when war comes. They hold that

the West is not to be trusted, and the strength of the Red Army will be the decisive factor in the inevitable Communist destruction of capitalism.

An examination of the U.S.S.R.'s strategic alternatives may help determine if she is likely to choose a strategy designed to accomplish one of the extremes or some intermediate course. First, a look to the past may offer some clues.

Two facts stand out in the relatively short history of the Soviet Union. First, World War II, its inception and aftermath, provided the Soviets with their one great period of successful expansion, accomplished by the might of the Red Army. Second, since that war and probably reflecting Western countermoves, the Soviets have approached international affairs pragmatically, giving ground here, probing there, appearing aggressive at times but almost dove-like at others. For example, since the aftermath of World War II, the Soviet Union by its own action has: (1) added no new territory to its domain; (2) withdrawn its forces from Iran; (3) contributed to the Indochina settlement; (4) allowed Austria to become neutral; (5) contributed to a tenuous settlement in Laos; (6) broken relations with Albania and later allowed her to withdraw from the Warsaw Pact; (7) sided with India against Communist China; (8) acted as mediator of a crisis between India and Pakistan; (9) withdrawn her missiles from Cuba under U.S. threat; (10) signed a partial nuclear test ban; (11) signed a nuclear nonproliferation treaty; (12) agreed to hold strategic arms limitation talks with the United States; and (13) on several occasions called for an all-European security conference to settle the problems of Europe.

Against this list of rather détente-like maneuvers, in this same time span the U.S.S.R. has: (1) supported North Korea's attempt to communize all of Korea; (2) increased her hold on East Europe by the Warsaw Pact and the Soviet economic bloc (Comecon); (3) crushed revolutions and budding counter-movements by force or threatened force in Hungary, Poland, East Germany, and Czechoslovakia; (4) modernized her conventional armed forces and developed a worldwide nuclear attack capability which today is roughly equal to that of the United States; (5) shot down a U.S. U-2 and other aircraft; (6) placed IRBM's in Cuba; (7) supported Cuba in her early attempts to export revolutions in Latin America; (8) turned on and off military and political pressures in Berlin; (9) armed and supplied North Vietnam and the Pathet Lao in their efforts to communize South Vietnam and Laos; (10) begun developing her armed forces into a force with limited worldwide conventional capability;¹ (11) stirred trouble in the Middle East by arming and encouraging Arab military actions against Israel; and (12) condoned North Korea's illegal seizure of the *Pueblo* and the shooting down of the U.S. EC-121.

Thus it could be argued that the World War II period gave the Soviets their most brilliant successes in international expansion and that her peacetime efforts have been less successful. Has this led to a Soviet predilection for war?

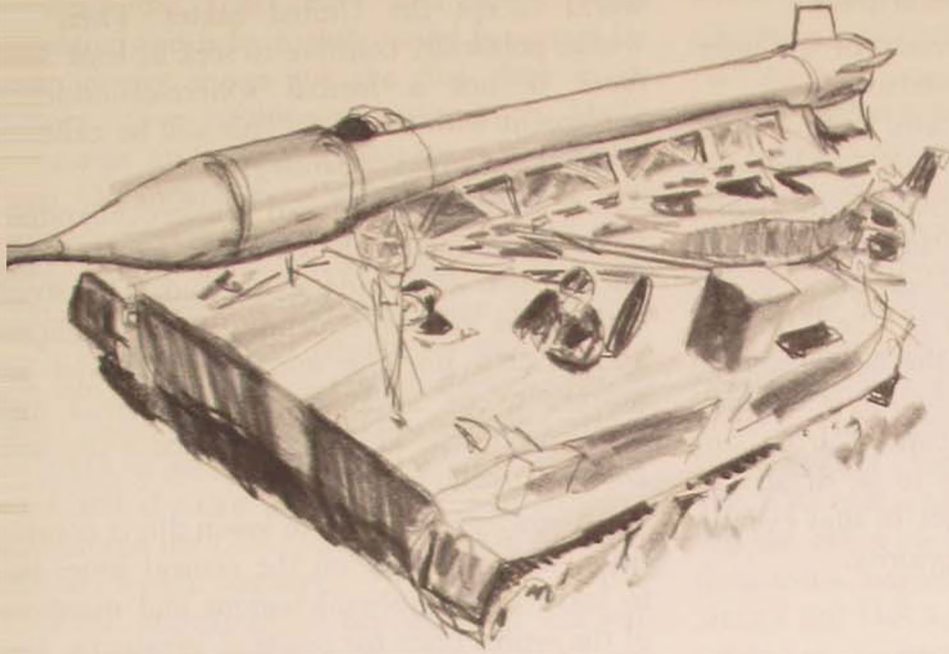
Sokolovsky's Military Strategy

Perhaps the best single source for answering that question is the book written under government auspices by a distinguished group of Soviet military men and edited by Marshal V. D. Sokolovsky, *Military Strategy*. First published in 1962, it was quickly revised in 1963 and again in 1968. The latest edition of the book reveals that the Soviet leadership considers nuclear war to be an "unacceptable alternative to peaceful coexistence." It further in-

dicates that in this age almost all wars will lead to nuclear war; therefore, although the two dominating political and economic systems can compete economically, politically, and socially, they must not compete militarily. It is important to add, however, that the book's definition of peaceful coexistence *does not rule out national liberation struggles*, which in many Soviet-approved writings are called the only "legal and just wars."

So in spite of the gains of WW II, *Military Strategy* would lead us to believe that today the Soviets consider war too dangerous to be an acceptable alternative strategy. But can we accept this as the definitive answer? Is Sokolovsky's book the final word and gospel? Many have argued that the book was written for Western consumption and no more describes the official Soviet attitude toward war than *Catch 22* describes U.S. strategy. They can cite many instances of Soviet chicanery in the past that were effective to obfuscate her true intentions and can make a strong case that Sokolovsky's book is an attempt to satisfy all the disagreeing military and political factions in the U.S.S.R. and thus to be all things to all men.

On the other hand, Sokolovsky's book has been actively debated in the Soviet press, was quickly revised to meet Russian criticism, and is required reading for all Soviet officers. So it seems likely that *Military Strategy* does reflect the majority position of the Communist Party of the Soviet Union (CPSU) at the time of publication and revision but that it is not the only opinion of Soviet military and political leaders. Since its publication the Soviets have devoted billions to achieve nuclear parity with the United States, a logical step if the book reflects official thinking and the Soviets feel, like the United States, that nuclear power deters war. But what about conventional forces—does not the Soviet conventional buildup in the late sixties cast doubt on the gospel according to Sokolovsky? If all conventional wars lead to nuclear war and nuclear war is



*"Frog-5" two-stage
unguided missile*

unacceptable and preventable by nuclear strength, then why a conventional buildup?

The answer seems to be that after finally approaching nuclear parity with the United States in the 1967-69 period, the Soviets found themselves just as unhappy with the "launch or surrender" choice as the U.S. had become years earlier. Some Soviet military leaders had long argued for "flexible response," and it appears they finally won out. The Soviet Union enters the seventies with her conventional forces in a transition state between a powerful but Eurasia-focused force to one with limited capability for employment away from Eurasia, when and where heavy opposition would not be anticipated.

It can be concluded, then, that *Military Strategy* probably does reflect the latest thinking of the political leaders of the U.S.S.R.: they do believe that nuclear missiles are the most important weapons in modern war and that nuclear war must be avoided, but growing Soviet international interests cause them to see also the need for strong conventional forces.

Soviet Goals

Since a strategy is designed to reach a specific end, before we can identify the Soviets' more probable choice of strategies we must identify the ends she desires. If we turn to the available literature and accept it literally, all we can find out is that she desires peace and prosperity for her people, for all the people of the world, and worldwide Communism. By reading between the lines and noting her actions, however, we can see the goals that she really wants:

1. To insure survivability of the U.S.S.R. as a Communist state
2. To avoid nuclear war with the U.S.
3. To maintain the East European commonwealth
4. To resolve the China problem
5. To attain military parity with or superiority over the U.S.
6. To enjoy economic growth and its benefits
7. To eliminate U.S. presence on her periphery (Western Europe, Middle East, and Asia)

8. To establish Soviet hegemony or expanded influence in those peripheral areas
9. To strengthen her leadership of the international Communist movement.

These goals and their priority are not fixed. Some Soviet experts might alter the listing a bit, and it could be reshuffled by world events; but based on the attention given by the Soviets, the list does include most of the current and ten-year goals of the U.S.S.R. Pervading the entire list is the determination of the CPSU to remain in control of Russia's destiny. A threat to that control from any source could cause the goals to be drastically rearranged, and the avoidance of that eventuality would become the first priority.

Soviet Strategies

Soviet literature offers a very poor source to anyone attempting to decipher her probable future strategy. As a totalitarian state, the U.S.S.R. need not justify her actions, and it is quite easy for her to reverse strategies overnight. However, by studying what she says and does and by applying considerable interpretation, one can see four strategies that seemingly form a spectrum of possible Soviet doctrine, in the following order of ascending probability of adoption.

1. A strategy of world domination through military strength. In the present world this would require the Soviets to mobilize their national elements of power to achieve a credible first-strike capability* over the U.S. and other nuclear powers. The U.S.S.R. could then use that capability as a threat in conducting international affairs. This will be called a *First Strike Strategy*.

2. A strategy of shared world domination with the United States. This strategy requires a mass commitment of Soviet national power to attaining a clearly dominant military and

economic position over all nations in the world except the United States. Then she would politically contrive to seek at least a *de facto* if not a formal sphere-of-influence agreement with the U.S. This will be called a *Spheres of Influence Strategy*.

3. A strategy of reduced tension, abandonment of conflict with the West, and acceptance of the worldwide status quo. This strategy would reduce expenditures for military and foreign intrigue and enable Soviet resources to be applied to her internal and Asian problems. This will be called a *Genuine Détente Strategy*.

4. A strategy designed to lessen direct competition with the U.S. on the central issues but to leave the peripheral regions and questions of the world open for political, economic, and even military exploitation. This will be called a *Détente/Expand Strategy*.

These are not traditional names for strategies. They do, however, describe four approaches to Soviet-Western affairs that require different mobilization and application of the Soviet elements of national power.

First Strike Strategy

The strategy of attaining first-strike capability and resultant world domination is not easily written off. The Soviets enter the seventies with a lead over the United States of three hundred or so deployed or partially deployed land-based ICBM's. They trail the United States in long-range bombers and in the Polaris class of nuclear submarines, but their production of the latter ranges from four to twelve a year, either figure exceeding current U.S.-approved production schedules. They are also spending as much as the United States on military programs, excluding U.S. Vietnam costs, and they probably get more for the dollar. Certainly, for example, they can maintain an armed force of approximately the same size as that of the U.S. for about \$9 billion a year compared to \$30 billion for the U.S. Their

* "First strike" is used here to mean the ability to launch a nuclear attack against a nuclear-armed opponent and be confident that his ability to launch an effective counterblow will be destroyed.

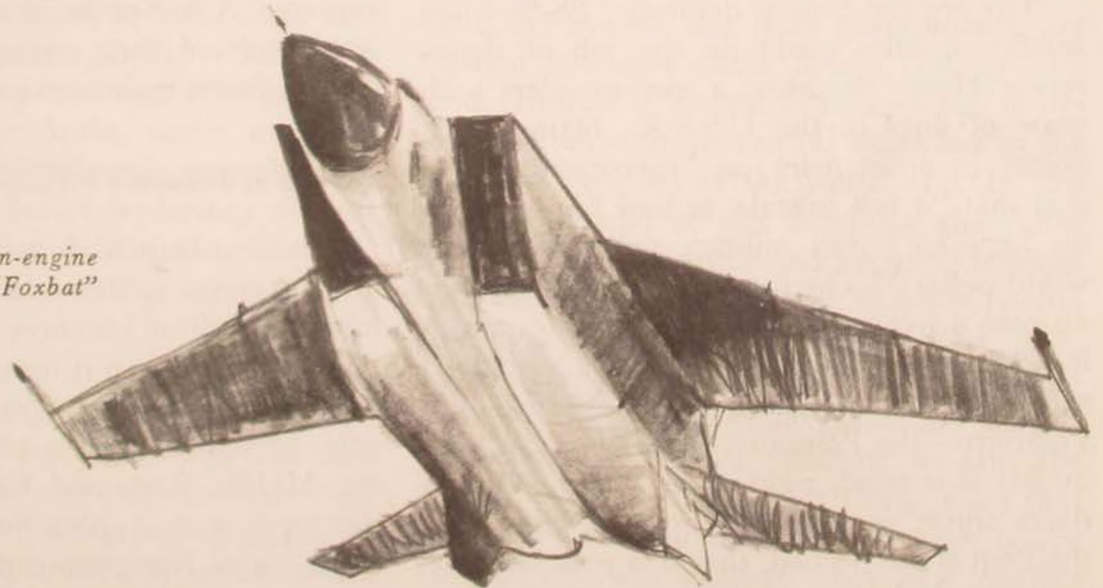
navy is already capable of interposing itself between the U.S. Navy and some future objective and is frequently noted in waters far from Soviet shores for the first time in its history (35 to 50 ships on station in the Mediterranean and token appearances in the Indian Ocean and even off U.S. waters). Her military fleet is heavily oriented toward missiles, causing some Navy authorities to argue that she has more firepower than the larger U.S. Navy.² Perhaps equally as significant is the Soviet Union's merchant fleet, which in 1969 ranked seventh in the world and which by 1975, if all contracts already let are delivered and if there are no U.S. countermoves, will exceed the U.S. merchant fleet in numbers and dry weight tonnage.³

Other indicators of her growing conventional military capability are her recent surge in modern aircraft production, including the world's fastest air-superiority aircraft, the Foxbat; the creation of a marine force; helicopter carriers for modern antisubmarine warfare (ASW) work; Red Berets, with unknown duties but looking suspiciously like the U.S. Green Berets; and extensive modernization and mechanization of her ground forces. To this

impressive list must be added her deployed, albeit not as yet fully operational, antiballistic missile (ABM) system around Moscow; her access to and possibility for exclusive use of Middle Eastern ports; and, most ominous of all, the deployment of more than two hundred powerful SS-9 ICBM's with the capability and possibility of modification as multiple independent re-entry vehicles (MIRV).

It is the SS-9 and growing Polaris-type submarine fleet that most imply the possibility the Soviets might seek first-strike capability. Is this conceivable? Brent Scowcroft has concluded that neither the United States nor the U.S.S.R. can achieve first-strike capability unless the other country actually cooperates.⁴ It does seem, however, that with the SS-9 plus MIRV's the U.S.S.R. could be reasonably confident of destroying the U.S. Minuteman force. But this would still not achieve first-strike capability because they would have to wipe out simultaneously the Polaris fleet, the U.S.-based B-52 fleet, some of the tactical aircraft in Europe, and the Asian B-52 fleet. They would also have to be confident that the United States, realizing its weaknesses and vulnerability, might not fire its missiles after

*Mikoyan MIG-23 twin-engine
all-weather fighter "Foxbat"*



receiving early warning and before impact. In view of the Soviet military's past predilection for overwhelmingly favorable odds before acting and the conservativeness of the Politburo, this alternative must be rated as unlikely. Soviet decision-makers must further weigh the U.S. lead in MIRV development and consider the facts that the United States now plans to deploy an ABM net around its missiles and that by keeping a close watch on Soviet deployed SS-9s the U.S. can take several moves to counterbalance them if they approach the 400 to 450 number of launchers necessary to threaten Minuteman survival. In light of these facts, it would be extremely difficult for the Soviet war and political planners to acquire confidence in the success of any first-strike attempt.

Another important consideration in this area is suggested by Thomas Wolfe.⁵ He notes that the Soviets have previously learned what the United States can do when supposed or real gaps in military capability develop, the missile gap and moon race being the most conspicuous instances. When the Americans found or thought themselves to be behind, their superior technological base enabled them to close the gap quickly and even streak ahead. In such a race, the Soviets have learned, they lose.

Why are the Soviets deploying SS-9s when smaller missiles could do the job of deterrence? Henry Bradsher, a correspondent with years of duty in the U.S.S.R., blames such Soviet inconsistencies on "momentum." He said that "it is a mistake to look for a rationale between Soviet military policy and their world policy."⁶ The fact is that once the Soviets plan a weapon system only failure can halt it. The explanation is not difficult to follow, since the plan is made by men chosen by the Politburo—the Politburo blesses the plan, and by fiat it is good, right, and perfect. No one dares argue, even months or years later, that the item is not needed, that it is redundant or uneconomical. That would be admitting to

fallacy in the central planning and, worse, the possibility of mistake by the planners. It is better in the U.S.S.R. to build it, test it, and deploy it. If it proves useless or ineffective, it might be scrapped or at least delayed for modification (the Galosh ABM?); if it works, the momentum of the system will insure its eventual production. Soviet warehouses are full of items that were produced even though they were not what was needed. In 1967 a Soviet film entitled "Sovremenik" ("the modern man") dealt with just such a problem—its ending was realistic: an uneconomical and obsolete system under development, which the "modern man" tried to scrap in favor of a newer system, was nonetheless built, and the modern man was fired for obstructing the plan.

Unlike the Soviet planner, I can be wrong. The Soviets would undoubtedly like to achieve first-strike capability, but in order to achieve it I believe that they would need the active cooperation of the United States, and they would be foolish to count on it. The evidence is that they seek nuclear equality, even numerical superiority, for the psychological advantage it gives them, but they still fear nuclear war more than any other single development. *Military Strategy* correctly describes the Soviet feeling that nuclear war is unacceptable. A first-strike strategy is therefore the least likely of their strategies as long as the United States maintains its defenses.

Spheres of Influence Strategy

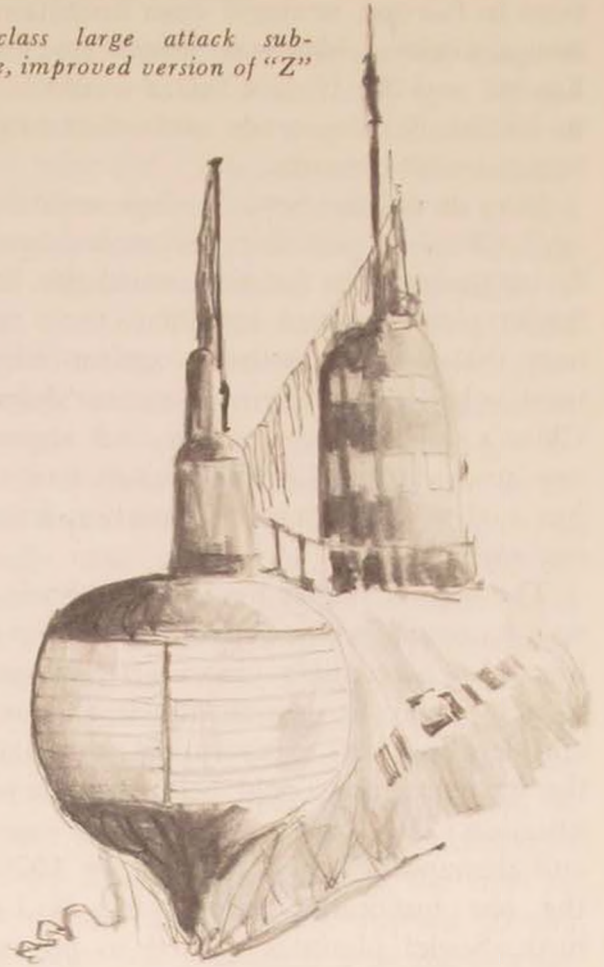
The next least likely but desirable and possible strategy is the spheres strategy. Soviet history is full of instances of this approach to power politics, and it has attracted their military and political leaders. Stalin and Hitler once agreed on such a plan for Europe and the Middle East, and Churchill and Stalin discussed such a plan for Europe. Reports came out of European capitals in the late sixties that a worldwide division into spheres of

influence is the Soviets' goal of the seventies. If this is their strategy, it helps explain why they worked so diligently in the late sixties to achieve superpower strength more favorably comparable to that of the United States. The Soviet hope, it can be argued, is to convince the United States and the world that these two nations alone have the power to rule and control the world; that *de facto* spheres already existing in East and West Europe could be expanded to other areas, resulting in more world stability. The spheres approach fits Communist ideology and methodology. Ideologically, it divides the world into two camps, and methodologically it is efficient, establishing clear rules for the game of politics and enabling long-range and detailed plans to be formed and followed.

It is, however, a utopian dream that reveals Soviet misunderstanding of Western values. It is further made impossible by China's rising competition with the U.S.S.R. in Asia, by Japan's and West Germany's booming economies, and the rising tide of nationalism in the world. No doubt the Russians would like a spheres-of-influence carving up of the world; but, as Castro, De Gaulle, Dubcek, and Mao have proved, spheres are easier to plan on paper than to put into effect and maintain. Practical Soviet foreign policy planners will have this fact driven home to them more and more each day as Chinese/Soviet relations deteriorate, East Europeans continue to resist domination, and the Arabs, under men like Nasser, continue to comply only partially with Soviet advice. The Soviet leadership will see this and, as attractive as the idea may be, abandon any hopes for the success of a spheres strategy.

The next two overall strategies that the Soviet Union might select are, from her viewpoint, less desirable but more practical and probable. During the seventies she may well switch from one of these grand strategies to the other, then back and forth as the world situation and her immediate objectives change.

"F" class large attack submarine, improved version of "Z"



Genuine Détente Strategy

This is not a likely strategy for the early seventies because it requires change—something the Soviets, like most governments, are hesitant and slow about doing. Genuine détente (instead of limited détente) refers to détente not only on the central issues but in the peripheral regions of the world also. In this strategy, instead of just accepting the status quo in Western Europe and avoiding tensions over Berlin, for example, the U.S.S.R. would restrict its activities in the Middle East, Asia, Latin America, and elsewhere. Economic and political competition would continue—the Soviets might well even continue to arm the North Vietnamese and Viet Cong, since that situation would have been under way before the strategy was adopted—but new conflict would generally be avoided. Negotiations

might be held on such topics as troop reductions in Europe, strategic arms limitation, the future return of islands to Japan, etc. Eastern Europe and the United States would be able to further develop trade and other so-called bridge-building moves.

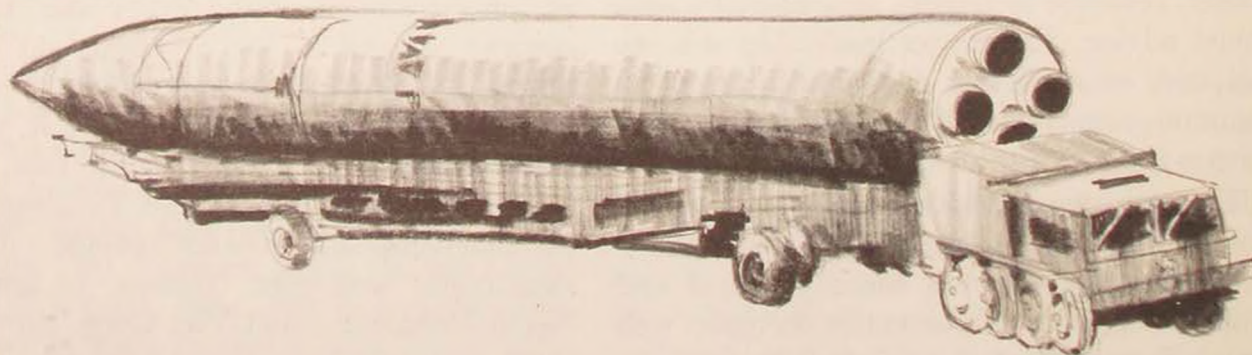
Why should the Soviets adopt such a strategy? China is probably the most important factor pushing the Soviets toward this choice. Soviet planners must consider—their actions bear this out—a two-front confrontation almost as bad as not having a nuclear deterrent. China's deliberate pugnacity and aggressiveness toward the U.S.S.R. threaten to create just such a two-front confrontation from the mid-seventies on.

The second reason for this strategy is Russia's economic problem. Her economy is slowing down perceptibly (from a 10–14 percent to a 4–6 percent growth rate in the sixties), and less military expenditures, especially in the strategic area, could help to improve this situation. The Russian consumer is expecting and demanding more. Also, since 1970 was the one hundredth anniversary of Lenin's birth, Soviet planners needed to present an abundance of consumer goods and a peaceful outlook to the populace as part of that celebration. This is much easier to accomplish if the status quo is accepted, military expenditures drop, and the government is seriously involved in negotiations with the West to re-

duce tensions and the danger of war.

Genuine détente, however, requires serious negotiations and an attitude of compromise and conciliation. The Soviet Union has been notoriously lacking in these attributes. Nonetheless, her current improvement in military power (especially strategic) vis-à-vis the United States enables her to bargain, for a change, from an equal or near-equal position. A freezing of that situation could appear very advantageous to the Communists, especially considering the real technological gap that makes any race a harder and longer haul for them.⁷ Parity, too, might be counted on to convince many of the U.S. allies that they can no longer rely on U.S. protection and that the seventies would be a good time to accommodate with the U.S.S.R. This feeling could be encouraged by a more reasonable Soviet foreign policy. An eventual gain for the U.S.S.R. arising from this strategy might be a serious weakening of NATO and more Soviet trade and influence in West Europe.

Thus genuine détente with the West in the seventies will have its Soviet supporters. Early indications of such a possibility are evident—the preliminary Strategic Arms Limitation Talks (SALT), the 1969 Warsaw Pact call for a European Security Conference, the Moscow-Bonn agreements, the ever increasing East European–West European trade, Soviet calls for an Asian security pact, and Soviet concili-



Three-stage ICBM "Scrag"

atory acts toward ancient Asian foes such as Nationalist China.

There are, however, factors which make this Soviet strategy unlikely to be adopted, the strongest being the resistance of the hardcore, still-Stalinist bureaucracy throughout the government, the party, and the Politburo. To many of them, genuine negotiation with the capitalists is anathema. When the motherland is in danger, concession might be acceptable, but not when the U.S.S.R. is so powerful and itself unthreatened. Certain military men and others should be expected to argue that a time of parity is a good time for international exploitation—to regain the revolutionary zeal of Communism and to use the developing Soviet conventional power to gain influence or control on the periphery of U.S. concern. Marshal Yepishev, Colonel Ribkin, and other Soviet military men representing this feeling frequently warn against trusting the West. They claim that any negotiation acceptable to the West must be detrimental to the Communists and should be avoided. In the late sixties and early seventies several Soviet affairs experts, including Milovan Djilas, have written about the rising influence of the Soviet military.

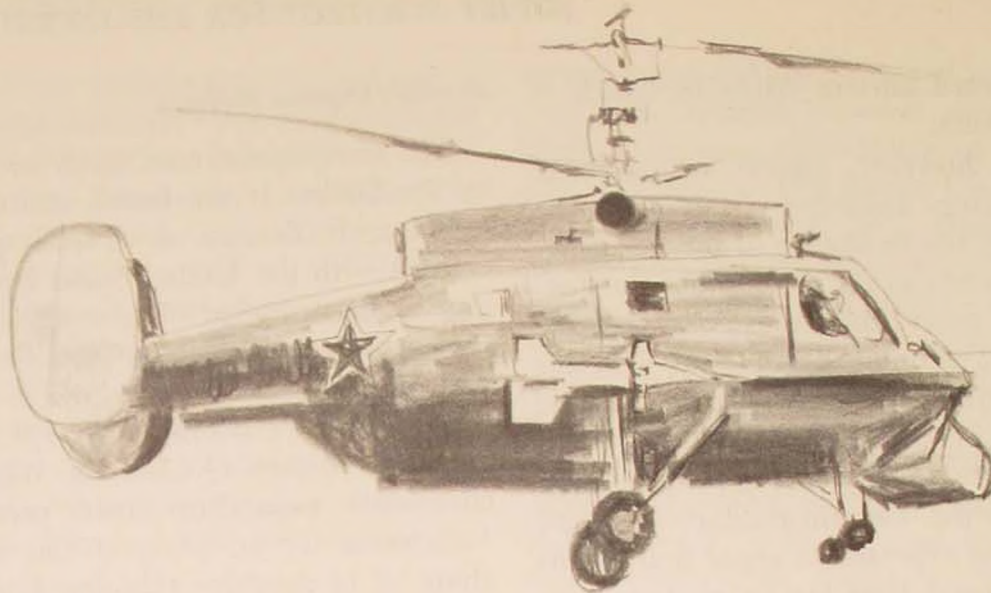
A careful analysis leads me to believe, however, that although military influence is indeed on the rise, as a result of circumstances like Red China and Czechoslovakia, there is no indication of a man on horseback in the wings. The military is still led by men who have made a career out of following party dictates; and the CPSU, following the guidelines formulated by Trotsky and imposed by Stalin, can keep the military subordinate to its desires. In the seventies Soviet military men will on rare occasions speak out in muted terms against a political decision, but they will carry the day only when they convince a substantial number of the Central Committee or Politburo that the policy they advocate is for the good of the party. The military's probable resistance to a Genuine Détente Strategy will contribute to its rejection by politicians.

Détente/Expand Strategy

The compromise most likely to be adopted by the Soviets is the fourth strategy, *Détente/Expand*: *détente* on central questions of conflict with the United States but continuation of the so-called class struggle or contest for expanded influence in the Third World; such a contest to include, where possible of success, wars of liberation, *coups d'état*, and any other means of lessening Western influence while expanding Soviet predominance. Arguments for adoption of this strategy include all of those for Genuine Détente Strategy and more. First of all, *Détente/Expand* is not really new. It was the strategy used off and on by Khrushchev and his successors, and thus it is not as difficult to justify, requiring only more of the same appeals to conservatives. It reasonably placates the "hawks" because it continues the "class struggle" but lessens the chance of nuclear miscalculation. It buys time for a technological breakthrough that could lead to adoption of the first or second strategy and equally appeals to the "doves" since real success in a partial *détente* strategy increases the argument for switching that strategy to genuine *détente*. This choice meets the criterion of enabling the Soviets to switch their power efforts toward China, yet costs less than full or genuine *détente* in the ideological conflict with China by allowing Soviet support and encouragement to budding Communist aspirations in the Third World. The *détente*-like maneuvers of the Soviet Union in late 1969 (described previously) all fall within the purview of this strategy; and even some arms limitation agreement, such as a freeze on ICBM deployment and stoppage of MIRV development (without inspection), could be acceptable under this strategy.

Détente/Expand Strategy Applied

Since the First Strike and the Spheres of



Kamov Ka-20 antisubmarine helicopter "Harp"

Influence strategies both require U.S. cooperation (or complete ineptness for the former) and the Genuine Détente Strategy is the least desirable of the other two from a Soviet viewpoint, the most probable strategy is Détente/Expand. How will it impact on Soviet actions throughout the world?

Both the Soviet Union and the United States consider themselves global powers with worldwide interests. Détente/Expand Strategy is based on the fact that the degree of their interest varies in intensity throughout the world. Under this strategy, if an issue is of high interest for both nations, the détente aspect is emphasized; if not, détente is forgotten and any technique for expanding Soviet influence is permissible. Generally it appears that in their relations with the United States the Soviets will pursue some limited level of détente in Western Europe, at the arms limitation conference table, and in Latin America and parts of Asia. In the Middle East, Africa, and Vietnam, on the other hand, the strategy employs the expand facet and allows Soviet attempts to gain an upper hand. Thus the Soviet strategic stance vis-à-vis the West differs in various areas of the world.

Vietnam

Seemingly, Vietnam would fall on the détente side of this two-faceted strategy, but it does not. It is true that both the Soviet Union and United States have strong interests in Vietnam, but the crisis has already passed. Force has been used, and direct confrontation was avoided, so détente now seems unnecessary, at least from the Soviet point of view. Indeed, to the Soviet planner, continuation of the Vietnam war looks rather profitable. The U.S. involvement there costs the United States \$25-30 billion a year compared to \$3-5 billion for the U.S.S.R. It also helps the Russians to appear peace-loving by comparison. Soviet support of the North Vietnamese, especially now that their embarrassing lack of response to the U.S. bombing of the North has been relieved, helps the U.S.S.R. in its polemical battle with Red China by proving it has not forsaken revolution. In late 1969 when the first evidence of the détente aspect of this strategy was appearing in mild and accommodating Soviet statements regarding West Germany, the SALT talks, and a European security conference, it was clear that Vietnam was a different matter. Those statements usually in-

cluded strong indictments of U.S. "aggression" in Vietnam and promises of continued Soviet support of the Viet Cong and North Vietnam.

It would appear, then, that any hopes of Russian help in negotiating an honorable settlement in Vietnam are doomed to disappointment. The risks to the Soviets from that war are too small and the gains too large. If U.S. involvement in Vietnam continues through the seventies, the Soviets will continue to aid the Communist side.

Arms Limitation/Western Europe

Soviet planners, if they read their own newspapers, must be impressed by the peace and dissident movement in the United States. It would be wise, they conclude, to encourage that movement by appearing to be peace-loving and conciliatory on those matters about which Americans seem most deeply concerned. U.S. involvement in Europe and the arms race are matters of such concern. The détente aspect of the Détente/Expand Strategy thus has the added attraction of taking advantage of this U.S. dissent movement. By making the threat seem less real, the Soviets can encourage the U.S. public to press for tighter restrictions on military spending and preparedness. It is this advantage, plus their concern over Red China and their newly acquired near-parity power, that should cause the Soviets to seek limited détente in the arms race and in Western Europe. The Soviets seem sincere in wanting to continue the SALT talks into the seventies and to hold an all-European security conference. Undoubtedly the United States and Canada will be included in such a conference. Ideally the Soviets would like the conference to lead to an agreement to abolish NATO and the Warsaw Pact, but more practically they seem to have lowered their sights to gaining at least *de facto* recognition of East Germany, all current European borders (including the Oder-Neisse), an all-Euro-

pean nonaggression treaty, and increased East/West trade. Accomplishing all or some of these objectives early in the decade might lead to a withering away of NATO by the late seventies, since it might appear to the West Europeans that the Soviet threat had significantly lessened. If NATO did lapse into insignificance, Soviet economic and military pre-eminence in the area could lead her to the successful accomplishment of goal No. 7 by becoming the dominant power in all Europe.

Even if the Soviet Union feels this outcome could be successfully managed, lessening the tensions in Europe is not in every way inherently attractive to her. The risks are greatest as they impact on Eastern Europe. The Soviets in the past have made effective use of a West Germany bogeyman. If limited détente is to succeed, this idea will have to be played down. East European nations (except, of course, East Germany) have appeared eager to encourage limited détente in Europe because it allows them to trade with the West. Trade with the West can mean less dependence on the U.S.S.R., and less dependence means that the Soviet No. 3 goal—control of the East European commonwealth—is then threatened. The Brezhnev Doctrine, which allows the Soviets to interfere in any Communist country where the U.S.S.R. determines Communism to be threatened, is the Soviet counterweight to this danger.

Another danger in a partial détente is that East Germany, not liking the shift in Soviet attitude toward the West German government, might upset the applecart and attempt to achieve a private accommodation with the West. This idea, which would require close control of the East German leadership, must scare the Russians right out of their diplomatic pants. The Soviet troops in East Germany, however, should make this risk easier to take.

Under Détente/Expand, the Soviets, as I see it, would not seek to solve the German problem, only to mute it. This tactic would

likely apply to Berlin also. In fact, in the late seventies an attempt to settle the problems of Berlin or German reunification precisely by negotiation could be a sign of a Soviet shift from Détente/Expand to Genuine Détente Strategy.

It is the arms control agreement prospects of Détente/Expand that offer the U.S.S.R. her best chance for gains in her own economic situation, her ability to meet China's challenge, and the long-range hope that Western Europe will turn away from the United States. Any arms freeze that gave relative parity would be bound to cause Western Europe

further to question the credibility of the U.S.'s continuing to provide her a nuclear umbrella. If Western Europe cannot feel sure of this umbrella, then it must either build a deterrent of its own or accommodate to the U.S.S.R. A seemingly peaceful, nonantagonistic U.S.S.R. might cause that second alternative to appear attractive.

Middle East

The real difference between the Détente/Expand and the Genuine Détente strategies is



Parade in Red Square celebrating 20th anniversary of victory over Germany

driven home when we turn to the effect on Soviet activities in the Middle East. In essence it will not affect her policies at all. The Middle East, Africa, and Asia except where the United States is committed (for example, in Japan and Taiwan) are the peripheral zones where the expand facet is applicable. In these areas the expand strategy frees the Soviets to do business as usual. In the Middle East this means continued efforts to win over all the Arab nations and make them dependent on the U.S.S.R.

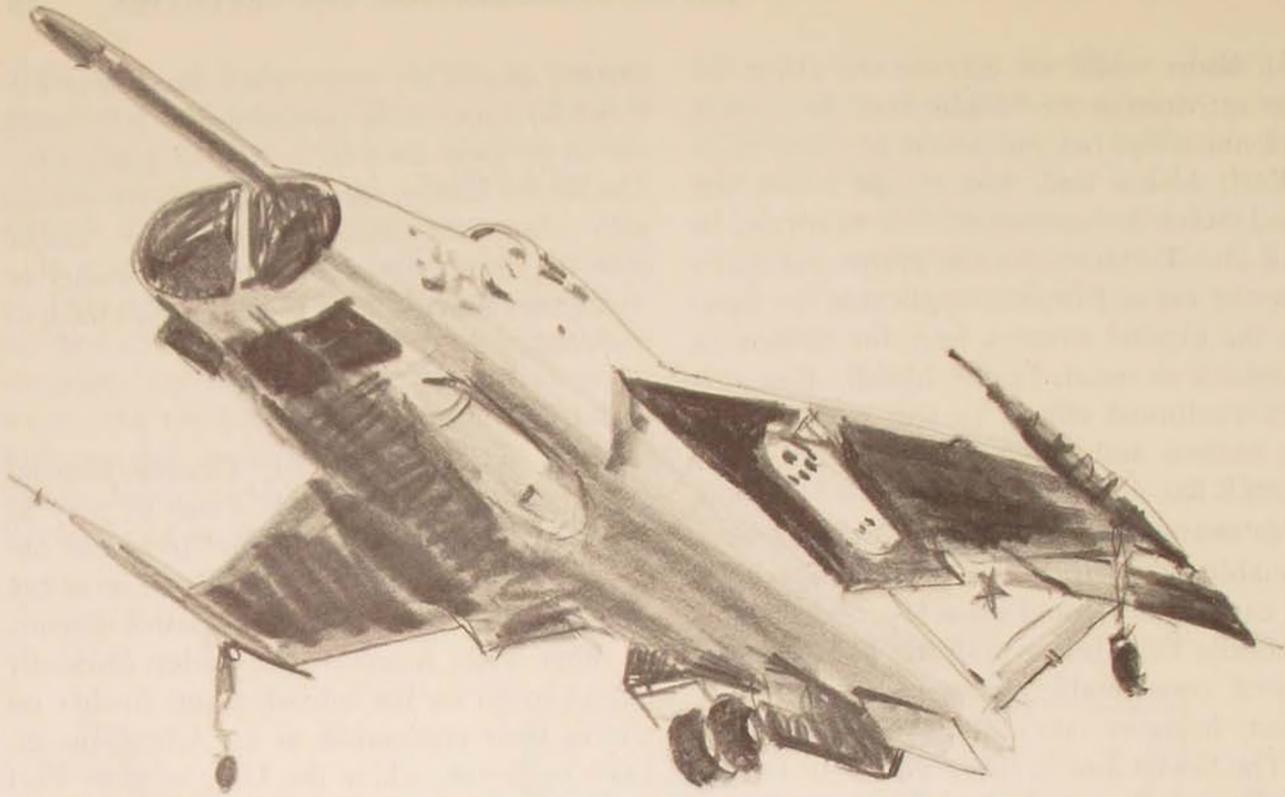
This strategy began in 1955 and has been reasonably successful. The Soviets may have been caught flat-footed on a few occasions in the Middle East, but overall the U.S.S.R. has acquired considerable presence in the area, without, however, very much apparent control. The Soviet aim in this region is to have a controlling influence. The chances of any Middle Eastern nation joining the Union of Soviet Socialist Republics in the seventies is unthinkable; indeed, the decade may pass before the Soviets gain authority and control commensurate with their current presence and responsibility, but they can afford to be patient. Control over the Middle East is an ancient Russian goal that has even more importance today because of the region's oil riches and other factors, but the Soviets will be satisfied with small steps toward that goal. During the seventies, by following her current policy of complete support for the Arabs in their struggle against Israel, in spite of many possible temporary setbacks, the U.S.S.R. should be able to further erode U.S., French, and British influence there and clearly establish herself as the dominant land power in the Middle East. Iran and Turkey are special targets, since they have not been swept up in the anti-Jewish feeling in the area and have close ties with the United States and/or Great Britain. Soviet strategy toward the Arabs in the seventies should be more of the same: she will continue to deal through their governments, rather than their dissidents and Communist

parties, and to try to convince them that the U.S.S.R. is the most powerful and influential nation in their area by reason of geography. The Soviet Union, she will assert, is the nation with whom they must learn to live, rather than the distant United States, who sooner or later (they hint) will be forced to pull back to the West.

Asia-Africa

As in the Middle East, Détente/Expand gives the Soviets a flexible hand to play in Asia. Where U.S. interests are deep and obvious, the Soviets will keep hands off so as not to hinder the European/arms control détente. In other areas, however, the Soviets obviously intend to go on the initiative and further establish their credentials as an Asiatic power. Even in Japan, where the U.S. Security Pact exists, the Soviets will be most active on an economic level in the seventies. China has succeeded in transforming the U.S.S.R. from a Europe-oriented nation to an equally Europe/Asia-oriented one, if not Asia-oriented. Her official statements about a proposed Asian security pact have been very vague. Her actions, however, do seem clear: she intends to have working relations with as many of the existing Asian governments as she can, and she will offer to support those nations against Chinese incursions. This is not a Communist-oriented desire; it goes back to Stalin's day when in 1934 he said, "If the interests of the U.S.S.R. demand rapprochement with one country or another . . . we will take this step without hesitation."

The current government has decided to deal with official non-Communist governments and has given up, at least temporarily, Khrushchev's dream that the Third World was ripe for immediate revolution toward Communism. The Soviets have angered many a budding Communist Party in Asia, Africa, and Latin America by failing to attack that nation's government and/or by dealing with the government politically and economically.



*Yakovlev(?) VTOL
aircraft "Freehand"*

The Soviets consider their relations with each nation in the light of their interests, seemingly with very little consideration as to how that nation treats Communists or its possibilities for immediate communizing. Soviet leaders have cautioned many Party visitors from the Third World to go slow, to cooperate with socialist parties and official governments, and even to wait for industrialization so that a working class can be formed to carry out the far-off revolution.

In Asia, also, the U.S.S.R. considers her geographic location as an advantage over the United States. Over the long haul, friendly relations with Asian nations, she thinks, will lead to eventual Soviet pre-eminence in the region. Her policies toward these governments will be flexible, generally friendly, politically subdued, and always ready to gain a foothold. Thus she can continue official relations with a nation like Indonesia even though it boasts of

its destruction of its Communist Party. In the twelve years between 1954 and 1966, Soviet aid to the Third World (except Cuba) totaled \$6 billion,⁸ but Soviet aid in the late sixties, like that of the United States, has been decreasing and becoming more pragmatic. In the seventies she will probably aid Asian and African nations, such as Nigeria, when it appears such aid will dampen Chinese or U.S. influence and offer the possibility for increased Russian presence.

To the Soviet Union in this decade, Asia is far more important than Africa and should receive, along with the Middle East, most Soviet aid and interest. Her newly developing conventional forces may well, on occasion, be used in Asia or Africa either to support some government against Chinese or Chinese-sponsored threats or to support a national liberation movement that appears destined for success. Soviet official policy states that foreign

liberation movements should be accomplished without Soviet manpower, but this statement was made before her conventional forces began the transition that eventually should give them a limited worldwide capability. Thomas W. Wolfe, in commenting on this trend, said the Soviets were wasting a lot of money if they never intended to use such forces.⁹ Under the right circumstances, which means little chance of involvement with the United States, Soviet conventional forces could be used in Asia or Africa by the mid-seventies.

Latin America

Because of its nearness to the United States, Latin America is a special situation. Although many of the conditions exist there that attract the "expand" part of the strategy in Asia or the Middle East, U.S. proximity and concern dampen Soviet enthusiasm for active expansion attempts. The Soviets, believing in the Spheres of Influence concept, would probably concede Latin America to the United States for geopolitical reasons. They are also aware of the extent to which the United States, once burned in Cuba, will go to prevent further Communist intrusion into the hemisphere. Thus they emphasize a kind of negative strategy for Latin America. They will probably accept the status quo, continue supporting Cuba (but discourage Cuban attempts to export revolution), and expand Soviet relations with the legal Latin governments as further proof of the Soviet global power image.

Generally, the U.S.S.R. will make no active efforts to change the status quo that might be used by forces in the United States to dampen our enthusiasm for limited détente in Western Europe or arms control. Indeed it seems possible that sometime during this decade the Soviets, recognizing the inherent danger of East European defections resulting from détente in Europe, might attempt to counter them by some unofficial Spheres of Influence offer to the United States that would establish *her*

claim over East Europe and *ours* in Latin America.

China

The most probable Soviet strategies described so far have been in a context of relations with the West. They do not apply to China. Soviet strategy toward China in the seventies will be tough and aggressive on the political, economic, and military levels, the only room for compromise being on the Chinese side. The Soviets are in a position of strength vis-à-vis China, and they know it. If their Détente/Expand Strategy proves successful with the West—and it should—then they will feel unrestrained in their policy toward China. A large-scale attack by the U.S.S.R. to eliminate China's nuclear facilities only 300 miles from the Soviet border is easily possible—almost even probable—within this decade. The only obvious factor that might militate against this action would be the death of Mao Tse-tung and the rise of a pro-Russian government there. A more likely event, on Mao's demise, would be a power struggle that could factionalize China seriously and even further tempt the Soviets to strike militarily. The Brezhnev Doctrine, so carefully used to justify the invasion of Czechoslovakia, is equally justifiable—indeed, ideologically, even more so—for an intrusion into Chinese internal affairs. Such armed intrusion may eventually prove to be the special Soviet strategy toward Red China.

The capitalist world could not help giving birth to the socialist, but now the socialist world should not seek to destroy by force the ground from which it grew. Under the present conditions this would be tantamount to the suicide of mankind.¹⁰

ANDREI D. SAKHAROV

Thus arise the national liberation wars of oppressed peoples which are the lawful, just, and progressive wars of our time.¹¹

GENERAL MAJOR K. S. BOCHKAREV

Returning to the spectrum of choices, we may accept the conclusion that nuclear war is unthinkable. Dr. Sakharov first suggests the need for a giant step, the burying of the political axioms, and a recognition that capitalism and Communism are both viable economic systems that can truly coexist. Unfortunately, although not alone in this belief, Dr. Sakharov represents a tiny minority of the influential people of the U.S.S.R., and his approach is highly improbable of adoption in the seventies. General Major Bochkarev espouses the more likely alternative: if a nuclear war is unthinkable, then build a nuclear force that guarantees deterrence and continue the political struggle by resorting to the only just (and acceptable) kind of war, guerrilla warfare.

Soviet military/political strategy can be confusing, but, if this analysis is correct, in the

seventies the Soviets will eschew nuclear war and seek détente in those areas where they feel nuclear war could develop. They will not give up the political struggle for world communitization but will continue that struggle via any means available, including guerrilla-led wars of liberation on the periphery of great-power interests.

The strategy of Détente/Expand provides the means for attaining the Soviets' top-priority goals that most of their leaders desire. It will also be attractive to many leaders in the West. Therefore, the Détente/Expand Strategy holds a good chance for eventual success. That success will depend on the countermoves and perseverance of the West, primarily as led by the United States.

Medford, Massachusetts

Notes

1. Andro Gabelic, "The USSR: New Accent in Strategy," *Review of International Affairs*, 20 November 1967. Mr. Gabelic was one of the first to accent this Soviet conventional buildup; since then authorities on Soviet military affairs such as Roman Kolkowicz and Thomas Wolfe have also alluded to it.

2. *Soviet Sea Power*, Center for Strategic and International Studies, Georgetown University, Washington, D.C., 1969.

3. Commander Robert D. Colvin, USN, "Aftermath of the *Elath*," United States Naval Institute *Proceedings*, October 1969.

4. Brent Scowcroft, "Deterrence and Strategic Superiority," *Orbis*, Summer 1969.

5. Thomas W. Wolfe, *Soviet Policy in the Setting of a Changing Power Balance*, The RAND Corporation, Santa Monica, California, P-4055, March 1969, pp. 7-11.

6. Henry Bradsher, "Kremlin Watchers Doubt Arms Talks Value," *Washington Star*, 25 June 1969.

7. Foy D. Kohler and Mose Harvey, "On Appraising Soviet Science and Technology," *Interplay*, November 1969.

8. Milton Kovner, "Soviet Aid and Trade," *Current History*, October 1967.

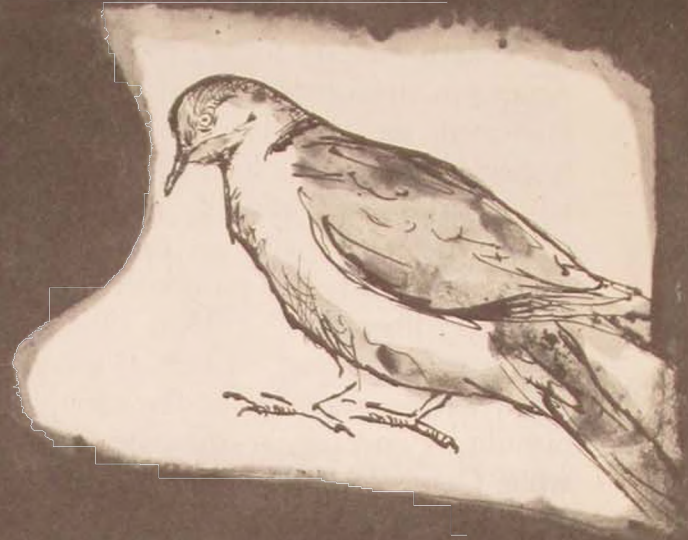
9. Thomas W. Wolfe, Testimony to Congressional Joint Economic Committee's Subcommittee on Economy in Government, 24 June 1969.

10. Andrei D. Sakharov, *Progress, Coexistence, and Intellectual Freedom* (New York: W. W. Norton, 1968), p. 78.

11. General Major K. S. Bochkarev, "On the Character and Types of Wars in the Modern Era," *Komunist of the Armed Forces*, Moscow, June 1965.

POWER, STRATEGY, AND WILL

COLONEL RALPH L. GIDDINGS, JR., USA (RET)



The solution lies in human hearts.

MARSHAL DE SAXE

WAR, as Clausewitz once noted, is an act of force to compel the enemy to do our will. It includes two essential elements: the act of physical force against the enemy's substance and the psychological campaign against the enemy's will.

As early as 1732, in speaking of the mysterious causes of victory and defeat, Marshal de Saxe wrote:

... the solution lies in human hearts and one should search for it there. No one has written of this matter which is the most important, the most learned and the most profound, of the profession of war. And without a knowledge of the human heart, one is dependent upon the favor of fortune. . . .¹

Today, while we have looked deep into the atom and have discovered things there that were not dreamed of by the prodigious Marshal, we can look no

farther into the human heart now than he could a quarter of millennium ago. Yet he is profoundly right. The answer must be sought not in the heart of the bomb but in the heart of man—at the very source of the human will.

The Role of Will

Western military strategists in general (and American strategists in particular) have concentrated on the act of force and have neglected the psychological seduction of the will. Clausewitz, Mahan, and Douhet discussed forms that the act of violence might assume, but only the proponents of “wars of national liberation” (Mao Tse-tung, Vo Nguyen Giap, and “Che” Guevara) have given serious attention to the ultimate object of military operations—the human will. Thus, while General William C. Westmoreland was occupied with “search and destroy” missions, Giap’s intentions have always been to outlast the Americans, not to annihilate them.

Americans seem to believe that the more violent the act of physical destruction, the more certain must be the disintegration of the will to resist. Yet a direct correlation between coercive force and will has never been demonstrated. To the contrary, a study of the causes and movements that have affected the course of history reveals that the will is capable of a power of its own, against which physical force often has been useless and sometimes counterproductive. Let us examine the role of the human will in strategic operations. What is “will”? How does it function? How is it best attacked and defended?

The will is a psychological and metaphysical concept unfamiliar to (and avoided by) both the “scientific-technological elite” and the “military-industrial complex.” To learn of the will we must turn to Aristotle, Saint Thomas Aquinas, Immanuel Kant, and Sigmund Freud; not to Alexander the Great, Sir Isaac Newton, Napoleon Bonaparte, or Enrico Fermi.

The will is the power of free choice. It is freedom of determination on the part of one who has the capability to impose his desire. To have freedom of choice is to have free will. To the extent that a nation cannot freely determine its own actions, its power and its sovereignty are limited. When a nation is no longer free to choose, it is powerless.

Since war is a contest of wills, the successful strategist must retain his own freedom of choice while limiting the enemy’s choice. The real objective of strategy is to devise courses of action that will keep our options open while limiting those of the enemy. Sir Basil Liddell Hart’s strategy of the indirect approach has as its basis an advance in which two or more hostile points are threatened simultaneously, giving the attacker freedom of choice while compelling the defender to cover both. “Take a line of operation,” he says, “which offers alternative objectives.”²

In a contest of wills, psychological factors are decisive. Ideas, slogans, and propaganda can be of more importance than physical power or material resources. Since the real object is to impose will, not casualties, the destruction of the enemy’s will to resist is more vital than the destruction of his ability to resist. Unfortunately, both politically and strategically the Western democracies have fallen into the habit of thinking almost exclusively in material terms. If we are to prevail in the present struggle, we must again think in spiritual terms. We must develop (or revive) a powerful Western ideology—something that will appeal to the human heart. We must renew or rejuvenate that evangelistic enthusiasm through which medieval Christianity and eighteenth century Humanism once were able to captivate and motivate mankind.

Forms of Power

Power is the ability to produce an intended result—the motive force that turns thought

into action. It is the ability to impose one will on another, either through influence or coercion. It exists in many forms and embraces physical, mental, and spiritual resources and capabilities. Power may be latent or exerted. It needs to be distinguished from force, which implies coercion, and mere desire, which implies weakness. Attempts to treat one form of power in isolation from its other manifestations can, at best, yield only partial truths.

Despite the popular tendency to disparage "power politics" as immoral, power is the essence of political life. Any political activity is a struggle among conflicting interests on issues of mutual concern. Conflicts only arise between individuals or groups that have similar but incompatible objectives, and the resolution of these conflicts inevitably involves the exercise of power. Power—in the political context—means the hold of a man (or a group of men) over the minds and actions of other men. It is a phenomenon encountered whenever human beings live in contact with one another. Since all social contacts involve the clash of wills, national security clearly must be founded on the national will.

National governments are threatened by two dangers: revolution and defeat in war. Against either danger, defense requires the exercise of power. International tranquility arises from relations with other nations and is grounded in national power. Security against internal subversion depends on power just as much as does security against foreign aggression. "Nonviolent protest" is clearly an attempt to bring power to bear on an issue of public concern. What could better exemplify this form of power than Mahatma Gandhi's nonviolent campaign to terminate British control of India?

As Professor Hans Morgenthau has said:

Power may comprise anything that establishes and maintains the control of man over man. Thus power covers all social relationships which serve that end, from physical violence

to the most subtle psychological ties by which one mind controls another. Power covers the domination of man by man, both when it is disciplined by moral ends and controlled by constitutional safeguards, as in Western democracies, and when it is that untamed and barbaric force which finds its laws in nothing but its own strength and its sole justification in its aggrandizement.³

Power can be applied in the pursuit of national objectives, with and without violence. When power is applied without violence, nations are said to be at peace, and the intercourse among them is called "diplomatic." When power is applied violently, nations are said to be at war, and the intercourse among them is called "strategic." This distinction, while sometimes useful, suggests that military power has no role in diplomacy and that persuasive power has no efficacy in strategy. We must not fall into this error.

In the first place, the study of one form of power in isolation can lead to false results. Forms of power are interdependent and sometimes indistinguishable. For example, the line between force and persuasion can be a subtle one. Power, like energy, is constantly changing; thus economic power can be transformed into military power, while military power can become persuasive power.

In the second place, peace and war are a continuum, not separate domains. If the transition from peace to war does not change the object of the will, war is truly a continuation of political intercourse, and to limit our understanding of diplomatic acts to those conducted during peace and strategic acts to those conducted in war is dangerous.

Once we accept this relationship between power and politics and recognize that overt military force is not the only way in which one will can be imposed on another, we are ready to come to grips with total strategy.

Total Strategy

Strategy involves the generation and appli-

cation of power (but not necessarily of force) in conflict situations. Strategy can and should be applied in all forms of conflict—athletic, business, and social as well as military. On the international stage, strategy is the systematic development and employment of national power, including but not limited to military power, to secure the goals established by national policy. Further, these goals must be secured despite the opposition of antagonists in the international environment. Strategy is an art rather than a science because the human will, not physical strength, will predominate.

Total strategy is the generation and application of all forms of power useful in the pursuit of our national objectives. It is "total" in the sense of being complete, not in the sense of being unconditional or unlimited. Total strategy should be applied in cold and in limited wars. In fact, it is more important in such conflicts than it is in all-out war, where naked force alone predominates. Total strategy implies total power, not total force or unlimited objectives. It may be necessary to limit force in order to maximize power. Total strategy requires the orchestration of all forms of power, to ensure their simultaneous and harmonious use. It must address an entire, constantly changing spectrum of conflict and must advance our national will over other wills incompatible with liberty and justice.

A sound strategic plan must consider the power of the enemy to frustrate it. It is the power of the other side to upset our plans that requires the strategist to devise courses of action that keep many options open to us while foreclosing options available to the enemy.

If war is regarded as a legal form, it is true that war either has or has not been declared. Events since 1945 have made it clear that this simple dichotomy does not provide an accurate model of the real world. In the first place, wars are fought today without formal declaration. Furthermore, conflict may take place using any or all the forms of power; the intensity with which it is applied will vary; and

both its form and intensity will change with time.

Exercise of total power must use every available and appropriate form. Military and economic power and psychological persuasion must all be exploited, during peace as well as during war. Total strategy is not confined to military action. The Cuban crisis of October 1962, for example, was a contest of wills between the United States and the Soviet Union. It was "won" by the United States without recourse to military force.

Americans, unfortunately, have a peculiar view of the world. They regard conflict as an interlude in the normal course of human affairs rather than as part of its mainstream. The idea of continuous international conflict is repugnant to them; they prefer to think of war as a means for a righteous and indignant America to punish a naughty wrongdoer in the international family—something like spanking an unruly child. Thus, they view war as the failure of policy, not as its continuation.

Strategic Persuasion

Any means whereby one group can impose its will on another can make a useful contribution to total strategy. Americans have demonstrated considerable skill in the exercise of military and economic power, but they feel uncomfortable with psychological persuasion.

Persuasion is the manipulation of the human will through appeal to reason, prejudice, or interest. Skillfully used, it can affect human behavior, alter human attitudes, and modify human goals. In the struggle for the mind of man, it is a potent weapon. Strategic persuasion includes, but is not limited to, psychological warfare.

Strategic (as opposed to tactical) persuasion is not, as a rule, conducted in face-to-face encounters. Rather the vehicles of mass communication are used: newspapers, radio, TV,

motion pictures, books, and the graphic and performing arts. A campaign of persuasion must be planned as carefully as any other strategic undertaking. The strategist employing it must study his opponent; he must learn of his history, culture, religion, politics, and mores; he must know what will appeal to him and what may repel him. He must select the target group and the vehicles to be used as carefully as he would choose an objective and an avenue of approach on the battlefield.

When persuasion is used thus—whether true or false, ethical or repugnant, good or evil, open or covert—it is called “propaganda.” The term has a bad connotation to Americans, chargeable in part to Adolf Hitler. Brainwashing and political indoctrination are considered totalitarian rather than democratic tactics. Propaganda, however, is the primary means of strategic persuasion. It is odd that a nation that sees nothing improper in Madison Avenue techniques dedicated to persuading us that “Sugar Corn Toasties are the best breakfast food” should find these same methods unacceptable to persuade the rest of the world that American democracy is the best government.

Of course, the successful propagandist dares not be cynical. False propaganda can produce at best a temporary advantage and at worst a humiliating debacle. What is said must be believable to the target group. Their own senses and reason must tell them that the propaganda is (or at least could be) true. One cannot convince a well-fed man that he is hungry. One may, however, convince a hypochondriac that he is dying. Blatantly false propaganda can also have the unpleasant side effect of adverse world opinion. The propagandist must never forget that the whole world is listening.

World opinion has been inordinately praised as a panacea for the international woes that bedevil us and intemperately condemned as a meaningless fiction. Both these views are wrong. Public opinion cannot do

everything, but this does not mean that it cannot do anything. The Declaration of Independence contains a reminder that we owe “a decent respect to the opinion of mankind.” And if the Communists are serious about their aspiration to world domination, they dare not be insensitive to their image among the nations of the world either.

Of course, no significant political decision should be based on a single factor. Further, the Soviet and Chinese leaders unquestionably assign to the various factors weights different from those assigned by the American leaders. Democracies, by their very nature, are more responsive to public opinion than are authoritarian governments. But history does not support the view that the Russians ignore or are oblivious to world opinion.

The Kremlin realized that intervention in Czechoslovakia would be unpopular and that this use of military force would hurt international Communism. In August 1968, after much indecision, the Russians decided that a subservient Czech government was more important than their international image. There can be no doubt, however, that world opinion was carefully considered.

The ultimate victor in the present world conflict may well be the side that wins the minds of men. The solution lies in human hearts, and we must search for it there. We must recognize strategic persuasion as a new instrument of power to be used in the defense of our national interest alongside the traditional instruments of diplomacy and war.

National Power and Political Objectives

Like anyone else who attempts difficult tasks with limited resources, the strategic planner must match the means available with the ends sought. Means may be vast, but they are still limited. Ends, unfortunately, tend to become unconditional.

National power is the product of many factors, some tangible, such as geography, population, and economic resources; some intangible, such as leadership, national organization and unity, and ideology. Depending on the political objective sought, the efficacy of different forms of power will vary. The threat to use nuclear weapons, for example, was not enough to secure the release of the USS *Pueblo* from North Korea. Neither could world opinion prevent the Russian invasion of Czechoslovakia.

In matching the means to the end, the strategist must: First, undertake only those things that realistically can be accomplished with the means available. "Adjust your end to your means."⁴ Second, select the form or forms of power most appropriate to that end. The way that something is done can have a more lasting effect than the end accomplished. Third, undertake nothing that, even if achieved, would not be worth the cost.

The successful strategist must always achieve his will at the lowest possible cost. The "method of least work" is a sound strategic principle as well as a useful engineering theorem. Sometimes the objective may involve forcing the enemy to select an option of our choosing—a "win" strategy. Again it may be sufficient to avoid an option of the enemy's choosing—a "not lose" strategy. Do not demand a "win" strategy when the political objective sought would be served as well by a "not lose" strategy.

The American Civil War provides an excellent example of these two strategic forms. All that the South had to do was to avoid defeat (not lose) to establish itself as a new nation; the North, on the other hand, had to defeat the Confederacy (win) to preserve the Union. The deep impression that the Civil War made on the American conscious (and subconscious) has left an unfortunate tradition in American strategic thinking. The North's victory of "unconditional surrender," which was required by the particular circumstances of that war, has

become the norm in American strategic thinking.

In selecting a strategic plan and choosing the form of power to be employed, we must guard against miscalculation and failure. A plan that will minimize regret is more desirable than one that will maximize gain. As the consequences of strategic miscalculation become more and more terrible, we are nearing a point where we must reject any plan that, while its probability of failure is slight, could have a catastrophic result.

Overcoming the Will

In seeking to overcome the will, the strategist must remember that, although the will is nonmaterial, it is very real. It being real, he can ignore it only at considerable peril; but, it being nonmaterial, he must attack it indirectly.

The most complete victory over an opposing will is to convince it of the rightness of our will; the least satisfactory victory is to force unwilling submission. Willing conversion to our will is a complete and permanent victory; it can turn an old enemy into a new ally. Unwilling submission is limited and usually temporary: the opposing will remains unchanged, to re-emerge at the first opportunity.

Unwilling submission, which is usually accompanied by a feeling of injustice, often causes one war to breed the next. The German seizure of Alsace-Lorraine in 1871 made its recovery the first priority in French foreign policy from 1871 to 1919. The "dictated peace" of the 1919 Versailles Treaty was negated by Germany at the first opportunity.

Once it is recognized that the enemy's will, rather than his body, is the true object of strategic maneuver, the question arises, "How does one attack the will?" Clearly, it involves the control of one will by another. Thus the answer must involve power, but how? What form of power will be effective in establishing

the ascendancy of one will over another? How should it be applied to be most effective? These are the practical questions that must be faced by the strategic planner. In broad outline, the will can be attacked by

—employing (or threatening to employ) physical violence so as to imperil the freedom (or even the existence) of the body. This is the classic Western use of military or police power. It is an approach to the will through fear.

—offering the inducement of rewards and punishments so as to make the attainment of the original purpose of the other will seem unprofitable. This, in essence, is the use of economic power. It is an approach to the will through interest.

—exerting influence over opinion through persuasion so as to make the original purpose of the other will seem undesirable. This is the use of propaganda. It is an appeal to the will through belief.

Regardless of the method employed, the ultimate object is the same: the control of people. The usual military approach involves establishing and maintaining control over the land, or the sea, or the air, depending on whether you talk to a soldier, a sailor, or an airman. As the U.S. Army Field Service Regulation (FM 100-5) said in a mid-1950 version, "The ultimate object of all military operations is the destruction of the enemy's armed forces and his will to fight." Unfortunately the rest of this regulation was devoted to the destruction of the enemy's armed forces, the unstated syllogism seeming to be:

Major premise: The destruction of a nation's armed forces will destroy its will to fight.

Minor premise: This regulation tells how to destroy its armed forces.

Conclusion: Therefore, if we follow this regulation, we will destroy the enemy's will to fight.

The weakness in this argument lies in the un-

stated major premise. No strategy can be total if it is based on reasoning of this sort.

Possible New Weapons

But there is one more way, perhaps an even more frightening way, to attack the freedom of the will. If the ultimate purpose of total strategy is to destroy the will to resist, hallucinogenic drugs (LSD, marijuana, peyote, etc.) may provide the primary weapon. Military power, economic power, and persuasive power, after all, attack the will only obliquely; "pot" assaults it directly. What is more lethargic than a satisfied drug addict?

After the Woodstock Rock Music Festival of August 1969, one of the participants was moved to write in *Life* magazine:

... as one who has believed that the justification for using drugs lay somewhere in the zone of psychic freedom, I was disturbed by the bovine passivity they [the drugs] induced in this mass of free minds. For almost everyone present, the freedom to get stoned together was more than freedom enough.⁵

The festival, he observed, took on the aspect of a concentration camp stocked with free drugs and staffed by charming guards.

The "military mind" is frequently accused of lacking imagination. It may be just as well. Strategic nuclear missiles have proved to be singularly ineffective weapons when it comes to imposing one will on another. Potential new weapons, however, may possess a power of undreamed-of efficiency.

In addition to the strategic use of drugs, developments in genetics and biology suggest that real breakthroughs in the art of controlling men may lie in these areas. Such power in the hands of unscrupulous men is frightening. The strategic use of hallucinogens, truth serum, and induced genetic mutations could make a tyrant the master of the world. Indeed the world of 1984 may be closer than we think.

Military Power

In achieving the ascendancy of the will, military power is clearly limited. The power of a nation depends not only on its population, its wealth, its technical capacity, and its armed forces but also on its beliefs and its creeds. Belief cannot be spread by fire and sword, and creeds cannot be defended by atomic bombs. Military power can be invincible in battle and yet unable to subdue a dedicated foe.

Nowhere is this limitation more apparent today than in the Arab-Israeli war. The Arabs have been decisively defeated in 1948, in 1956, and again in 1967. And yet, paradoxically, each Israeli victory has only strengthened the Arab will. Each new blow seems to stimulate the Arab extremists and boost the anti-Zion feelings of the Arab masses. Military success seems to have taken the Israelis farther from their goal.

When one recognizes the impossibility of Israel's achieving a military solution despite its overwhelming military superiority, it is a sobering thought to substitute the United States for Israel and the Viet Cong/North Vietnamese for the Arabs, and then to ask: Can America do any better? Will Americans support an indecisive war for over twenty years?

Some feel that military power is worthless. Nothing could be farther from the truth.

Total strategy is no more possible without military power than it is without persuasive power or economic power. Within its proper limits, military power can be used effectively in either a passive role or an active role. Deterrence is the classic use of military power in a passive role. This use of military power acts both to restrain potential enemies and encourage and support allies. The Cuban missile crisis of 1962 is a classic example of the passive use of military power in conjunction with other manifestations of national power. This was total strategy.

Used in the active role, military force is capable of implementing a "not lose" strategy to thwart the enemy's attempts to win through military action. Military power alone can achieve a complete success when there is a vast disparity between the two antagonists. India's take-over of Goa in 1962 is an example.

Finally a military success can gain time to permit a more permanent solution to be worked out. To reach the twenty-first century, we must first survive the 1970s, and military power can buy time for the other forms of power to work towards a better world. Unfortunately, history provides few examples of time used wisely when bought at such a high price. Indeed, the real solution *does* lie in human hearts, but no one seems interested.

Fairfax, Virginia

Notes

1. Marshal Maurice de Saxe, *Reveries on the Art of War*, trans. Brigadier General Thomas R. Phillips (Harrisburg, Pennsylvania: Military Service Publishing Company, 1944), p. 18.

2. B. H. Liddell Hart, *Strategy* (New York: Praeger, Paperback PPS-6, 1954), p. 348.

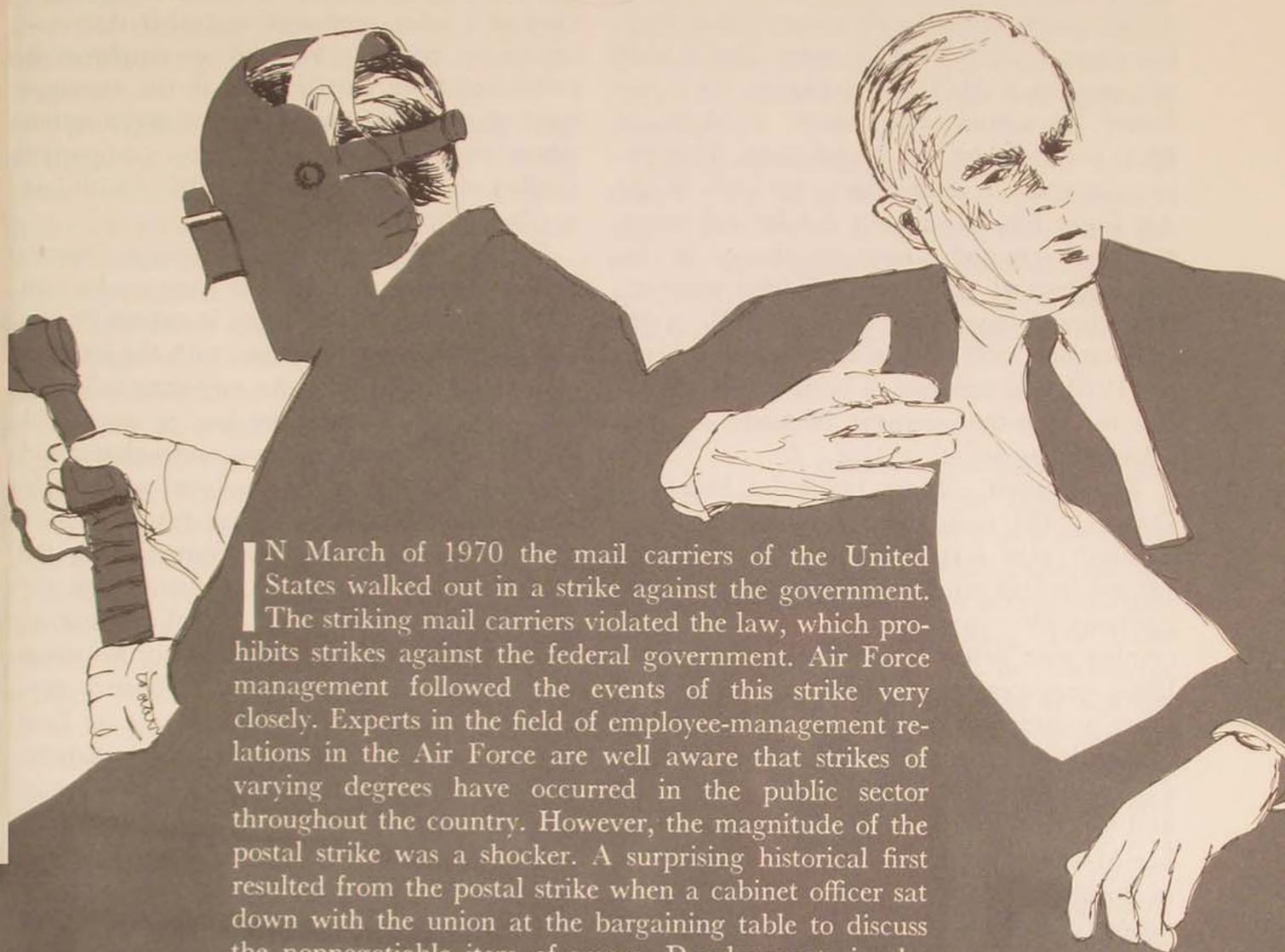
3. Hans J. Morgenthau, *Politics Among Nations: The Struggle for Power and Peace*, 3d ed. (New York: Alfred A. Knopf, 1960), p. 9.

4. Liddell Hart, p. 348.

5. Barry Farrell, "Second Reading: Bad Vibrations from Woodstock," *Life*, Vol. 67, No. 10 (September 5, 1969), p. 4.

LABOR-MANAGEMENT RELATIONS IN THE AIR FORCE

COLONEL JOSEPH E. HEARN



IN March of 1970 the mail carriers of the United States walked out in a strike against the government. The striking mail carriers violated the law, which prohibits strikes against the federal government. Air Force management followed the events of this strike very closely. Experts in the field of employee-management relations in the Air Force are well aware that strikes of varying degrees have occurred in the public sector throughout the country. However, the magnitude of the postal strike was a shocker. A surprising historical first resulted from the postal strike when a cabinet officer sat down with the union at the bargaining table to discuss the nonnegotiable item of wages. Developments in the postal strike have in a sense established a "new ball game" for management in the Department of Defense.

Many commanders in the Air Force today, as well as young officers who are destined to become commanders, know very little about a commander's responsibilities in the field of union-management activities. The purpose of this article is to inform Air Force line officers of important changes in the labor-management program and to

offer suggestions as to attitude, techniques of negotiation, and proper language in agreements.

Since 1962, USAF involvement in labor-management relations has become a major element of the civilian personnel program. With the momentum provided by Executive Order 10988, union growth within the civilian work force has made substantial gains. Today over fifty percent of Air Force employees are represented by unions with which management deals regularly on an official basis. This impressive growth of unionism, not only in the Air Force but throughout the federal sector, eventually created a need for change in certain aspects of the labor relations program. Accordingly, Executive Order 11491, dated 29 October 1969 and in effect since 1 January 1970, was designed to bring greater maturity to labor-management relations on both sides of the negotiating table.

The greatest change made by Executive Order 11491 is in providing for centralized authority over certain key matters that have proved troublesome to both unions and management. Decisions on issues and disputes concerning unit determinations, elections, unfair labor practices, negotiability questions, and other matters will be made by such impartial outside bodies as the Federal Labor Relations Council, the Federal Service Impasses Panel, and the Assistant Secretary of Labor for Labor-Management Relations. The introduction of third-party review means that management actions and decisions may be subject to close appraisal by an authoritative outside agency when they affect employees and their unions.¹ This also means that a third party will make decisions that have historically been made by commanders concerning grievances. Never before in the history of the military services has this been true.

changes made by EO 11491

Time and space permit only an abbreviated explanation of the important differences be-

tween the old executive order entitled "Employee-Management Cooperation in the Federal Service" and the new one entitled "Labor-Management Relations in the Federal Service."

The new policy section prohibits a supervisor from acting as a union officer or representative of a labor organization (other than excepted by Section 24), and an employee is prohibited from participating in the management or representation of a labor organization where there would be conflict or apparent conflict of interest or incompatibility with law or official duties.

Section 3 applies to all employees and agencies in the executive branch except when an agency head determines that it cannot be applied in a manner consistent with the internal security of the agency. An employee who administers a labor relations law or EO 11491 may not be represented by a union that could be party to a matter the employee would consider in the course of his official duty.

The major changes are contained in the administration section. It provides for the President to designate a top-level interagency committee, known as Federal Labor Relations Council, as central authority to oversee programs, settle policy issues, and act as final appeals body on labor-management disputes except negotiation impasses on substantive issues. The President will appoint a high-level government panel, known as Federal Service Impasses Panel, to assist in resolving negotiation impasses or, if necessary, to make final decision in resolving an impasse. Arbitration or third-party fact-finding, with recommendations, may not be used except when expressly authorized by the panel. This section also transfers authority from agency heads to the Assistant Secretary of Labor for Labor-Management Relations to supervise elections and certify results and to decide unit and representation disputes, questions of eligibility for "national consultation rights," complaints of unfair labor practice, and standards of conduct

cases. The Assistant Secretary also has power to require an agency or union to cease and desist from violating the order on these matters and take appropriate affirmative action to effectuate the policies of the order.

The recognition section transfers authority from agency heads to the same Assistant Secretary to disqualify organizations from recognition because of corrupt or undemocratic influences.

The section on agreements requires that both parties negotiate in good faith. It clarifies those items that are not negotiable, adds a new one on internal security practices, and provides new rules for settling disputes on negotiability issues. A new policy protects an agreement from effect of change in agency regulations unless the change is required by law or outside authority. An agreement may not require an employee to become or remain a union member or to pay money to a union except as he voluntarily authorizes.

An agreement may now contain employee grievance procedures which meet Civil Service Commission requirements; may make them the only grievance procedures available to employees in a unit; and may provide for arbitration. An agreement may contain procedures for consideration of disputes over interpretation and application of an agreement, including arbitration with consent of the union. Both parties may file exceptions to the arbitrators' award, and the agency and union will share all costs equally. Agency head can disapprove a locally negotiated agreement if disapproved on the basis of conflict with applicable law, policy, or regulations.

The sections on disputes and impasses authorize use of the Federal Mediation and Conciliation Service to assist in negotiating agreement and use of the Federal Service Impasses Panel to bring about final resolution of impasses.

The section on conduct of labor organizations and management now requires organizations to file financial and other reports, to

provide for bonding of officials and employees, and to meet trusteeship and election standards. The Assistant Secretary of Labor now prescribes regulations and decides alleged violations.

The new EO covers additional unfair labor practices and clarifies some previous provisions. Again the Assistant Secretary of Labor is responsible for impartial procedures and enforcement, including antistrike and picketing provisions.

The EO prohibits authorization of official time for employees acting as representatives in negotiations with management, even when the meeting was requested or approved by management. It authorizes dues allotments but terminates all formal and informal recognitions.

A CAREFUL evaluation of the changes brought about by EO 11491 and a reading of the entire order will indicate to the Air Force officer that labor-management activities at any installation can become complicated, technical, and perplexing. The more experience a commander has in labor-management relations, the less trouble he will encounter in day-to-day dealings with the unions. It is true that every base commander and higher-level commander usually has one or more highly trained civilian employees and an Air Force judge advocate who can resolve or furnish advice to assist in the resolution of most labor-management matters. Notwithstanding the excellent management teams located on our Air Force bases, most serious problems that occur in the labor-management area are caused by unit commanders who take improper action or fail to act when it is their responsibility to do so. This situation may be aggravated by the retirement within the next three to five years of most commanders who have attained a high level of efficiency and knowledge in labor-management relations.

Unfortunately, we still have military and

civilian managers who have no interest in learning more about the new Executive Order and whose thought and action patterns have not changed. Some officers hold the view that civilian employees should not question management decisions simply because they work for a military department. The point I am making is that every Air Force officer serving as a commander or occupying a position with labor-management responsibilities should make a greater effort to become more knowledgeable, proficient, and productive in the USAF labor-management program. Commanders must understand that unions are here to stay and that unionism plays a major role in employee relations. As EO 11491 comes to bear on the USAF's labor-management relations program, management attitudes and views will have to be adjusted to the changing character of civilian personnel administration.

The Personnel Development Center at Gunter AFB, Alabama, conducts a short course in labor-management relations, which is designed to provide management the knowledge needed for effective labor relations at the activity level. Most of the students are key civilian employees, judge advocates, and line officers occupying staff positions. Base commanders and their deputies should attend.

why unions?

Air Force officers, aware that unions are firmly implanted in the federal service, may ask: "What is the purpose of unionism for government employees?" The answer: "To share the decision-making process with management." For many, this sharing is merely an extension of the basic democratic premise on which our society is founded. Given the egalitarian spirit of our origin, it is not surprising that men whose careers and livelihood are deeply involved in a particular set of options are anxious to be informed in advance of the final management decision. They naturally desire to be consulted; they hope eventually to

gain a voice in making the decisions.

The desire for decision-sharing is accentuated by certain aspects of modern technology. The increasing complexity of the management structure, the growth of and reliance upon computers and other automated processes, the proliferation of obscure specialists—all contribute to a feeling of insecurity or uncertainty among employees. The trend toward impersonality in work has gone too far. The personal touch is being lost. For many, joining a union restores their lost sense of companionship. It also strengthens the drive to improve working conditions. A major factor in the growth of unions in the public sector is the disparity in pay, the private sector running well ahead of the public. Industry salaries are higher than those received by government employees, especially where training and skill become an important job factor. Furthermore, job security, once the most important feature for many in the Civil Service, has lost its appeal with the new generation, which generally has known only prosperity.

It cannot be denied that quite often the reason an employee joins a union is management. However painful, it must be acknowledged that employee dissatisfaction is occasionally allowed to fester and become a problem. Usually the matter is out of all proportion to its importance, except of course to the individual who feels himself a victim of an injustice. More often than not his grievance is not directed against policy but a specific act or omission by a supervisor, who keeps the issue bottled up, perhaps unthinkingly backed by management. A union can be very effective in this situation, especially at the unskilled or semiskilled level, because it has the resources to get to the root of the problem, the time to take it to the top, and no fear of personal retribution.

union negotiator

The words "union negotiator" may conjure

up a stereotype of an uncouth individual with an unsavory past. Management acting on such a mental picture naturally may pick a representative who can handle such an imagined adversary, i.e., a hardheaded, aggressive, chip-on-the-shoulder negotiator. Actually, the union negotiator is usually well trained, well dressed, well mannered, intelligent, tactful, and well paid—in a word, a professional. He will be familiar with the subject matter, having done his homework, and able to communicate. He will know how to bargain collectively, often portraying the traits of actor, preacher, lawyer, and politician. He can be very warm and likeable as well as provocative and antagonistic. Air Force installations that have not been wise enough to recognize the versatility of union negotiators have often come out on the shorter end of negotiations.

management negotiating team

There has been insufficient appreciation on the part of management of the importance of the negotiating team. All too often reluctant middle-level managers are selected either because “they won’t be missed too much” or because top management is not interested and is apprehensive about unions. But usually it is the people who will be missed that would make the best negotiators. In fact, Air Force negotiations under EO 10988 showed that the unions will expect the chief spokesman for management to be at the bargaining table speaking for the commander. If the chief spokesman does not have that authority, chaos may develop.

The most important trait of a successful management negotiator is that he be a fighter who can maintain his position with patience and calm—in the current vernacular, he must “keep his cool.” An inexperienced negotiator may be worn down by a skillful, determined adversary to the point where he is willing to give in, or rather give up after prolonged bargaining on one issue. The management nego-

tiator must know or learn how to bargain collectively. The labor-management specialists of the civilian personnel office and the base legal adviser can give excellent advice on how to bargain. The “old man” (commander) can furnish the best guidance on this subject because he is the best judge of what the command is willing to give and what it needs to gain.

In my opinion, a staff judge advocate should not be the commander’s negotiator, even though he may otherwise be the ideal choice. It is very difficult for a staff judge advocate to maintain his role as legal adviser to the commander and all his people and at the same time be a decision-maker for the commander at the bargaining table. An Air Force negotiator must be familiar with the mission and all activities of the organization he represents. He should be familiar with the hopes, fears, desires, and problems of many of the employees. He should understand the nature and politics of unions. He should be aware of the laws, rules, and regulations governing employees in the Civil Service. To sum up, what is required is the knowledge of the political scientist, the skill of the lawyer, the tact of the diplomat, and the philosopher’s understanding of human nature. Such a paragon is hard to come by. My point is that only the best people are good enough for the job.

written agreements

The Directorate of Civilian Personnel, USAF, will publish a new Air Force manual on labor-management relations, and one of its chapters will pertain to policy, contents, duration, and other requirements of the negotiated written agreement. This manual will implement EO 11491 and should be followed explicitly during the writing of an agreement. I would like to pass on a few suggestions that I have learned from my experience as adviser to management’s negotiating team and as a participant in writing negotiated agreements.

The selection of words which make up agreement language is very important. A quick but basic example is that the word "will" should not be used when "may" would be more appropriate. "Will" is certain and usually irrevocable; "may" can preserve management's prerogative and right. The articles of an agreement should be accurate, effective, and easily understood. Legal "whereas," "wherefore," and language that is difficult to understand have no place in an agreement between management and a union. An article must not be indefinite, ambiguous, vague, repetitious, superfluous, too broad, or illegal. Some words and phrases that should be avoided in writing union-management agreements are "compelling circumstances," "grievance or complaint," "conditional assignments," "compelling personal emergency," "from within whenever possible," "mutually agreeable," "mutual interest," and "all." These words, used properly, can, of course, be most appropriate, but they are often used improperly and leave sentences open to extreme interpretations.

The title and text of an article should clearly relate to the same subject matter. If the title of the article is "Overtime Work," do not talk about leave without pay in the text. Agreements should not quote or paraphrase regulations because there is always doubt that the article means the same thing as the regulation. It is perfectly proper to refer to or cross-reference a regulation, if desired. When agreements are ready for extension or renewal, management must ensure that all articles are in accordance with regulations published after the original date of the agreement. The best written agreements between Air Force management and the union are short and clear.

attitude of commander and top management

The attitude of a commander and his key management people can usually determine success or failure in all their relations with

recognized unions. The commander and his staff must convey a spirit of willingness to consult, understand, cooperate, and explain their situation to local union officials. The daily relationship with union officials should be grounded in the knowledge that the commander is easy to reach and approach. If not, the unions will bypass local managers and take their disputes to Headquarters Air Force level. For example, a few months ago a new base commander told me that he had the perfect solution for dealing with the union and keeping union officials on the straight and narrow. He established a policy of dealing with the unions at "arm's length" and communicating with the officials by written correspondence. His policy was short-lived because the roof of his hard-shell policy fell in on him. Good judgment, understanding, and approachability must be built and fostered at the activity level.

IN ORDER to maintain a position of leadership, Air Force managers and supervisors must be alert to recognize employee problems. Prudent management will make special efforts to smoke out problems that may exist with employees but go unnoticed by management. Management cannot be complacent but rather must be concerned as to employee conditions and relations in every activity in the command. Good management practices are not always prescribed in directives and standard operating procedures. Air Force management was definitely improved under Executive Order 10988, and many advancements were made in the field of labor-management relations. In my opinion, however, the surface has barely been scratched. Young managers in the Air Force have a wide-open field of opportunity to use their imagination and ingenuity in discovering new ways of using unions to the advantage of the Air Force.

It is true that government-employee unions do not have the right to strike. However, in

addition to the recent postal strike, other public employee unions have struck in some communities in the nation. A governor's commission in Pennsylvania has recommended that the Public Employee Law be revised to give public employees a limited right to strike.² In 1968 the International Association of Fire Fighters deleted a 50-year-old no-strike pledge from the union's constitution.³ In 1968, the National Association of Letter Carriers and the National Postal Union approved a resolution requiring their national officers to "investigate fully the legal and legislative technicalities involved so that Government employees may be accorded the right to strike by the Congress" and to "study the feasibility of removing the no-strike oath that we are now

required to take as a condition of employment."⁴

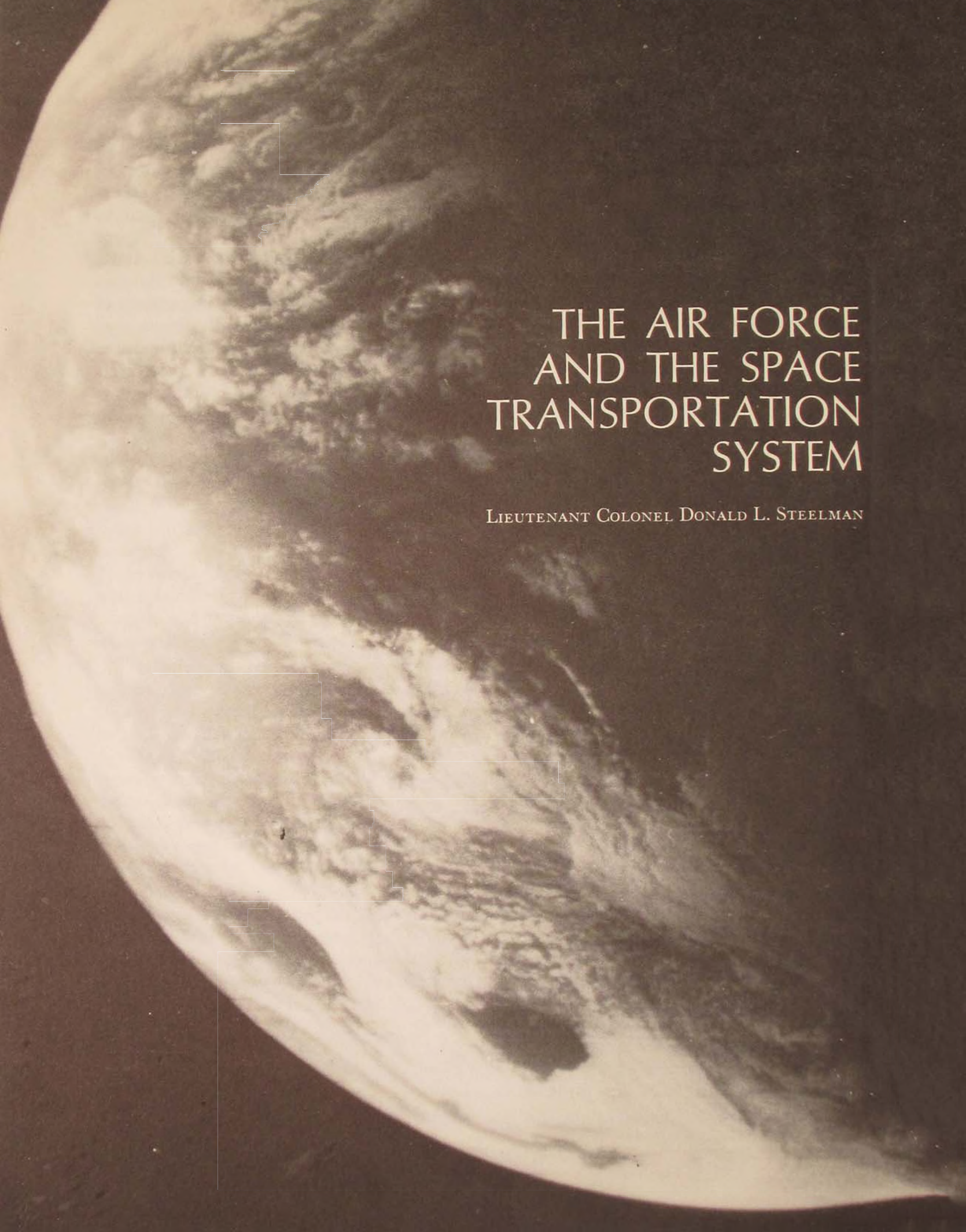
If and when this trend may affect the Department of Defense are of interest and concern to the military services. So long as government employees are denied the right to strike, management throughout the Air Force must be responsible for replacing it with a procedure that insures fairness and meaningful collective bargaining. The importance of the Air Force's relationship with unions, particularly in view of their impact on its mission, is sufficient justification for Air Force officers to become knowledgeable and proficient in this specialized and highly interesting responsibility of command.

Hq Air University

Notes

1. TIG Brief, USAF, Nr. 5, Vol. XXII, 13 March 1970.
2. Government Employee Relations Report (GERR), B-10, Nr. 251, 1 July 1968.

3. GERR, B-1, Nr. 259, 26 August 1968.
4. GERR, A-9, Nr. 259, 26 August 1968.



THE AIR FORCE
AND THE SPACE
TRANSPORTATION
SYSTEM

LIEUTENANT COLONEL DONALD L. STEELMAN

DURING the past decade the space program of the United States has matured greatly. From the meager beginning of orbiting a satellite weighing three pounds, the nation has advanced to significant accomplishments in both manned and unmanned space exploration.

Attaining a reliable space capability and achieving the lunar landing goal, however, have been extremely costly, the total expenditure for space programs during the decade being approximately \$50 billion. During the sixties the U.S. launched nearly 300 payloads into earth orbit with a cumulative payload weight of approximately 3½ million pounds. The cost of delivering the early satellites to orbit was approximately \$1 million per pound, compared with present costs of about \$1000 per pound. The decrease in cost is related to size, production rate, and improved launch-vehicle performance through advanced technology. But today, as in the past decade, every launch vehicle is expended after its initial use, as well as every payload because the payloads cannot be maintained or reused. The high cost of putting things into orbit and their inaccessibility once they are in space have been limiting factors on the nation's space activity thus far. The cost will become even more constraining in the future because of other high-priority national programs that will require attention and funding.

report of the Space Task Group

Recognizing the need to plan effectively the nation's future space activities, the President established a Space Task Group (STG) in 1969 to consider goals and objectives for the period after Apollo. In its report the STG, considering the need to decrease the high cost of space operations, recommended that a Space Transportation System (STS) be developed that would be a major improvement over the present systems in terms of cost and operational capability. It would be designed to carry men,

equipment, supplies, and other spacecraft to and from orbit and would support both Department of Defense (DOD) and National Aeronautics and Space Administration (NASA) missions.

The STS concept that has evolved from the STG activities and from preliminary NASA and Air Force studies and analyses is a two-stage reusable vehicle, called the Space Shuttle, to be used for carrying payloads from earth to low-earth orbit and return, and a reusable Orbit-to-Orbit Shuttle (OOS) for transferring spacecrafts to high-energy orbits. The first stage of the Space Shuttle is a booster that will perform initial acceleration for the system. The second stage is the orbiter, which will continue into orbit and will contain the payload compartment that accommodates the OOS and/or spacecraft.

A flexible, fully reusable space transportation system will reduce not only launch-vehicle costs but also payload costs as a result of repair and reuse capability and reduction in design and testing constraints. To the DOD, which spends approximately \$1.7 billion per year for space programs, the attractiveness of economy in space operations is evident. Space systems within the DOD must compete with other means or operational modes for satisfying specific mission objectives. Thus an economical Space Transportation System with proper capabilities and operational flexibility will enable space activities to become more competitive. Such a system is expected to have a profound impact on space operations and probably an effect on the cost of DOD space systems.

intended joint DOD/NASA use

For conducting present space operations, the DOD employs the Scout, Thor, Atlas, and Titan III as basic Standard Launch Vehicles (SLV's). These SLV's, coupled with upper stages such as the Agena, Burner II, Tran-

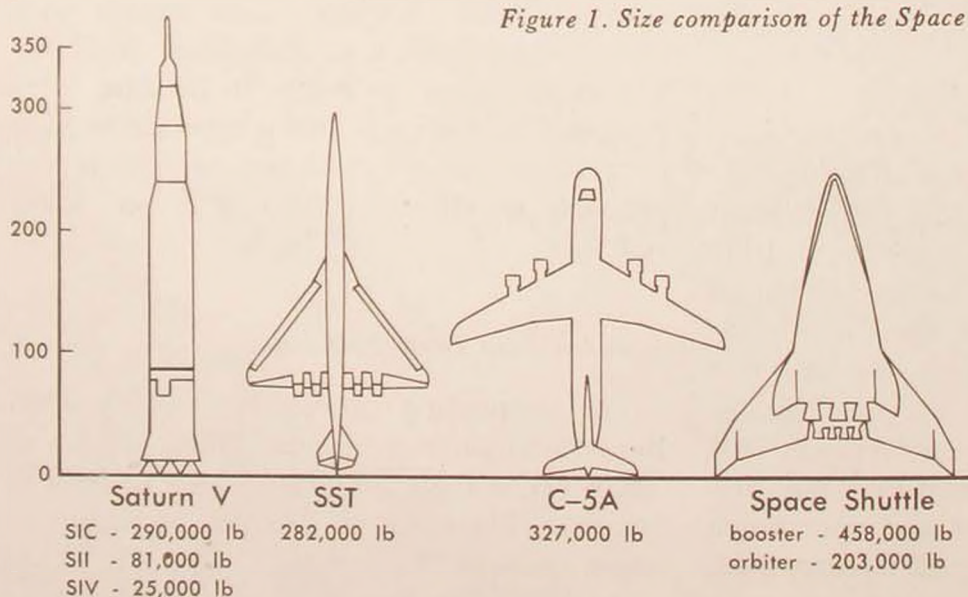
stage, or NASA Centaur, are used in various combinations to satisfy launch-vehicle requirements for the DOD, other agencies such as NASA, Environmental Science Services Administration (ESSA), commercial organizations (e.g., ComSat), and foreign nations (United Kingdom, Germany, Italy, etc.). Additionally, NASA uses the Saturn family of vehicles to accomplish its manned launches.

It is for the potential replacement of this stable of expendable launch vehicles that a national STS is proposed. Because of the many potential multipurpose applications, the STS must have a capability to satisfy both DOD and NASA space operations. Preliminary studies have shown that, because of the R&D costs, neither NASA nor DOD can separately justify or amortize the cost of the system based on their respective traffic forecasts. On the other hand, the studies have indicated that the combined needs of both agencies are sufficient to make the development of STS very attractive.

In February 1970 NASA Administrator, Dr. Thomas O. Paine, and the Air Force Secretary, Dr. Robert C. Seamans, Jr., signed an agreement that established a NASA/Air Force STS Committee, with four members from each

agency, to review and plan the development phase of the Space Shuttle. Since NASA is the executive agent for the development of the Space Shuttle, the primary tasks at the present time for the Air Force, as DOD's agent, are to coordinate Air Force activities that can contribute to that development, to establish DOD performance requirements, and to influence the design in such a way that DOD's space needs can best be achieved.

Headquarters USAF establishes policy and provides direction for Air Force participation in Space Shuttle development. Coordination of all related activities within the Air Staff is the responsibility of the Directorate of Space, DCS/R&D. This Directorate maintains an in-depth understanding of the planning effort and status of Space Shuttle activities, coordinates supporting R&D activities, and insures that military requirements are properly considered in the shuttle design. From a policy point of view, the Directorate of Space coordinates with NASA on shuttle activities within the same general framework as on other areas of mutual interest to the Air Force and NASA. The Director of Space serves as a member of the NASA/USAF STS Committee.



Outside the Air Staff, a variety of Air Force organizations participate in STS activities. In Headquarters Air Force Systems Command these activities are coordinated by an STS office under the DCS/Development Plans. Field activities for the STS are conducted within the Development Planning Office of the Space and Missile Systems Organization (SAMSO). In addition to these offices, Air Force members participate in the various technical and technology planning panels established by NASA to define and coordinate technology programs necessary to support the development of the shuttle. The Air Force has also participated in review of the NASA Phase B Shuttle System Definition and Engine Requests For Proposal (RFP's) and has assisted in evaluation of industry responses.

shuttle studies and characteristics

In May 1970, Phase B (preliminary design) study contracts for the Space Shuttle were awarded to two industry teams by NASA. These eleven-month studies will define the Space Shuttle system and are expected to provide a better understanding of the technical approach, scope, timing, and cost of the shuttle program. These studies, along with studies and analyses of space applications, operational impacts, and capabilities which the Air Force is conducting, should provide a better insight into the utility of the shuttle concept for the Department of Defense.

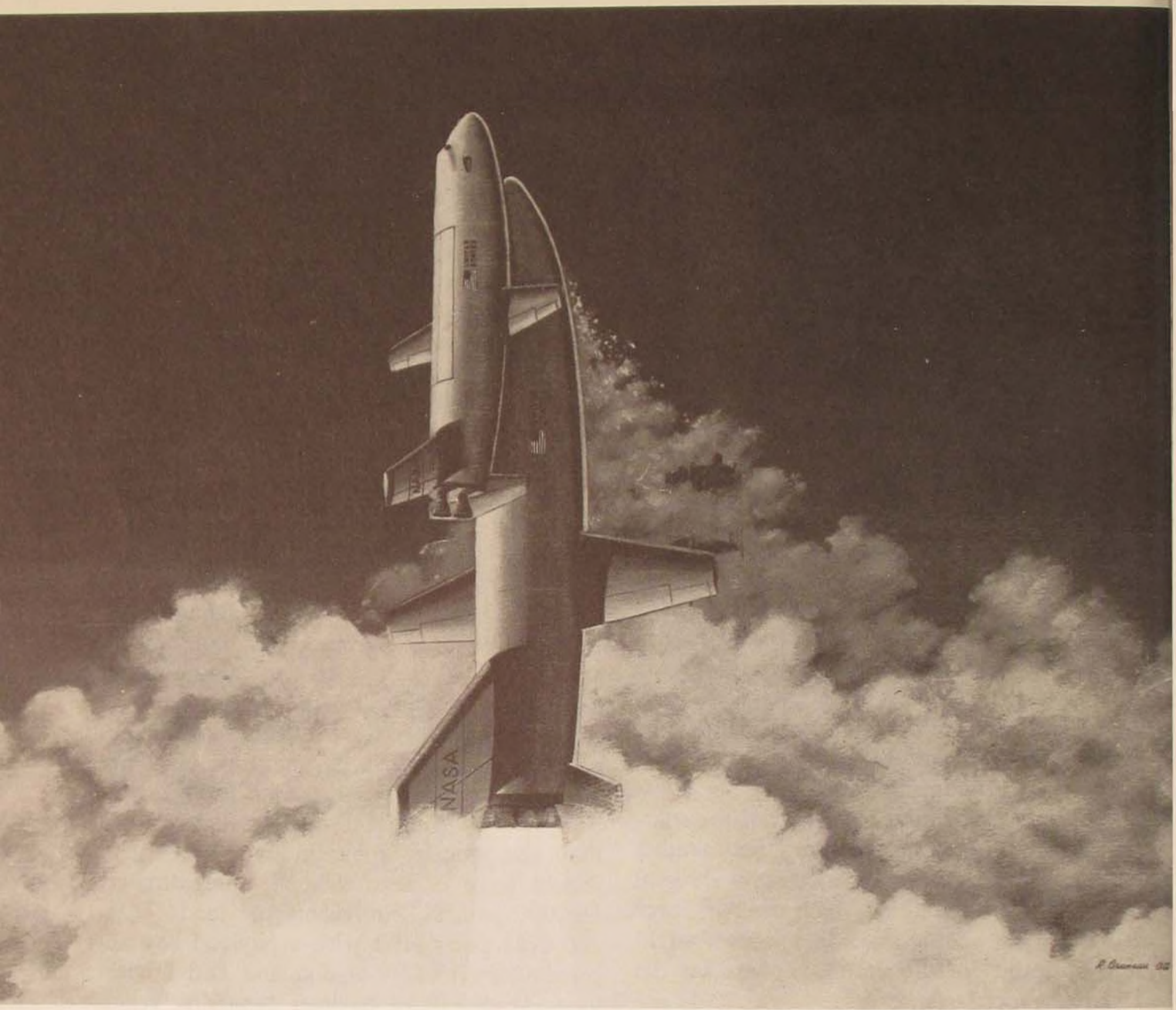
DOD interest in the shuttle lies in its potential for reducing the costs of space operations, achieving beneficial effects on payload design, and increasing mission flexibility and capability. If the shuttle system that evolves is to be useful to the DOD, it must be capable of satisfying these objectives. Accordingly, certain shuttle characteristics are vital to DOD mission needs in the areas of communications, meteorology, navigation, surveillance, and others.

To satisfy future DOD needs, the shuttle should have adequate payload capability to

accomplish presently forecasted launches as well as the undefined space launches of the future. The operational characteristics, weight, and volume requirements of future payloads are likely to be varied, and a new STS should satisfactorily handle any reasonable variations. The new system should also be able to accommodate a variety of payloads for total launch cost less than that of present booster systems. Because a large number of DOD systems require that payloads be transferred from low orbit to high-energy orbits, it is necessary that the propulsive stage for the transfer to high orbits and back be considered as part of the shuttle payload. Thus, the payload bay should be sized in length and diameter to insure that payloads required for projected systems can be accommodated.

Since the first shuttle system, because of its development cost and time, will most likely be in use for at least twenty years, adequate consideration should be given to designing a vehicle to meet forecasted systems launches and allow for payload growth. Experience has shown that early versions of transportation vehicles are undersized by the time they are built and cannot accommodate normal payload growth. Air Force analyses have shown that the shuttle, to meet national needs, should have a capability of approximately 40,000 pounds equivalent payload in a 100-NM polar orbit with a payload bay approximately 15 feet in diameter and 60 feet long. Trade-offs of payload capability versus development costs and operational cost considerations must be carefully analyzed.

The shuttle should have minimum launch azimuth constraints, to permit maximum mission flexibility for a number of military space launches. It should have the ability to inject payloads into a variety of orbits, change its orbital parameters, and return from orbit under relatively unconstrained conditions. After performing a mission, it may have to return quickly to a predetermined landing site; therefore, the potential for a high hyper-



A Space Shuttle with straight-wing configuration is launched vertically (artist's depiction). The orbiter rides piggyback atop the booster to about 200,000 feet altitude. Separation occurs after about three minutes' flight, the booster returning to earth while the shuttle with its payload goes on to orbit. The lift-off weight of both vehicles is approximately 3½ million pounds.

sonic lateral maneuvering (crossrange) capability is required.

In addition to launch and return flexibility, military systems may require a capability for launch on short notice. Thus expeditious pay-

load checkout and modular payload bays that are essentially unaltered from flight to flight are essential.

The Air Force believes that these desirable characteristics should be inherent in the shut-

the design so that the system will not have to be redesigned early in its life cycle and so that the supporting equipment and facilities will have a long operational life. The theory that a small STS might be built in the near term and a larger version later does not appear to be an efficient or economical course of action. The Air Force is interested in system efficiency in terms of payload factors and operational aspects and does not propose a vehicle larger than necessary.

orbit-to-orbit shuttle

Coincident with the shuttle system definition effort, the design concept of the oos is being considered because it, as part of the payload for the shuttle, has a significant impact on shuttle design considerations. In addition to volume and weight, there are many significant parameters affecting the design of both the shuttle and the oos. Included are environmental conditions, electrical interface, computer commonality, guidance and navigation interaction, avionics, storage and ejection mechanisms, spacecraft sensors, and on-board checkout systems. Also, since the spacecraft or operational sensors should be designed for reusability, the capabilities for retrieval and refurbishment must be considered.

With the shuttle, the launch environment will be favorably altered. The more benign launch environment, more relaxed payload weight limitation, simpler payload integration, and ability to service payloads on-orbit or return them for diagnosis and repair may permit simpler, lower-cost designs for future spacecraft.

To achieve these payload design benefits, however, timely and effective planning must be accomplished so that spacecraft design concepts are time-phased with availability of the STS. The conduct and support of programmed essential military missions must not be jeopardized; therefore, the initial operational capability (IOC) date of the STS should be well

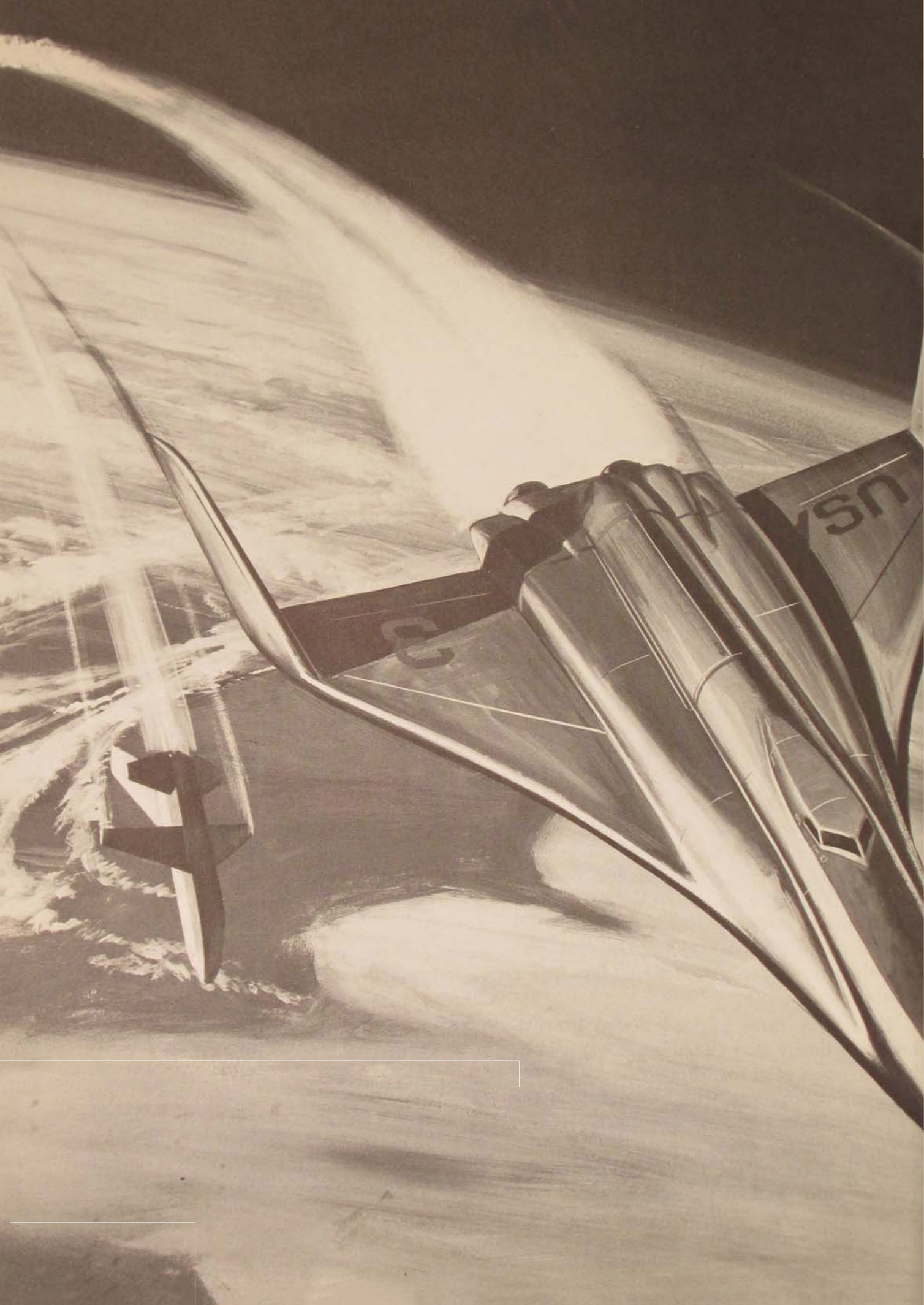
established. Even though preliminary studies to date indicate a time-frame of the late seventies for the shuttle's IOC, the results of the preliminary design definition studies will provide better planning information for predicting the availability date of an operational STS.

phase-out of present systems

Before the STS becomes the means for transporting payloads to and from space, consideration should be given to the proper phase-out of the expendable Standard Launch Vehicles. This changeover will have to be accomplished without disturbing military mission capability and at minimum program costs.

Coupled with the need to program and to plan for the phase-out of the SLV's presently supporting the space programs, the phase-out of the attendant launch facilities should be considered. The DOD currently operates and maintains two Titan III launch complexes and one Atlas/Agenda complex at Cape Kennedy and ten different launch complexes at Vandenberg AFB to support the various space programs. A third supporting activity, the Satellite Control Facility (SCF), acquires and controls payloads on orbit. The impact of the STS on each of these facilities should be assessed at an early date.

Another factor concerning the phase-out of the Standard Launch Vehicles and the phase-in of the Space Transportation System is the program lead time involved. Because of the long lead time for procuring payloads and SLV's and the time required to obtain approval and funds for the program, SLV's scheduled to fly payloads in the 1974-75 time period are presently on contract. Procurement must be initiated in 1974 for vehicles that will fly in 1978, when the shuttle may become available. Because of the present uncertainty of the date when the STS will enter the inventory and the lead time involved in phasing out the SLV's and associated facilities, it is obvious that very long-range planning must be accom-



plished if a smooth, effective, and economical phase-over is to be obtained.

Considerable planning and action have been under way by the DCS/R&D, and specifically the Space Directorate, on a continuing basis to consider these matters. As early as 1968 the Air Force and NASA, as part of the Aeronautics and Astronautics Coordinating Board (AACB), performed a study of the launch vehicle requirements for DOD and NASA during the period 1970-80. Subsequent activity by the Manned Spaceflight and Launch Vehicle Panel of the AACB will include the necessary planning to phase out the SLV's as the STS becomes operational. With this particular aspect in mind, a review of all vehicles, launch complexes, and user-agency requirements through the seventies was conducted, with NASA participation, in April 1970. Decisions were made and approaches agreed upon to lay out plans for reducing the number of launch vehicles and launch complexes to a minimum consistent with forecast mission and payload requirements until such time as the STS becomes operational. The end result will be a coordinated DOD/NASA long-range plan and course of action.

ONCE an economical and operationally effective Space Transportation System is developed, the Department of Defense expects to use it for its space operations. Thus, a very logical thought process and course of action need to be pursued in considering the STS development. The STS is *not* just another launch vehicle; rather, it is a system that provides for a radical change in the way we now approach and consider space applications, space missions, and space operations. First, in considering space applications, we should expand our horizons of the recent formative years and consider new space mission applications that could improve our means for economically accomplishing military missions. Second, an understanding and appreciation for the shuttle environment should be developed. This involves a completely new payload development philosophy. Third, the phase-in of the STS operations and the phase-out of present launch vehicles must be carefully considered to preclude weakening of the space posture. Future applications of the STS must be analyzed, and the total impact that an STS can have on future uses of the space environment should be explored.

Hq United States Air Force

A delta-wing version of the Space Shuttle shortly after separation from the booster (a drawing). The booster returns to earth for refurbishment and reuse. The Space Shuttle goes into orbit with its payload. After performing its mission, it too returns to earth for refurbishing and reuse.

THE ROLE OF COMMUNIST IDEOLOGY IN INSURGENCY

CHARLES A. RUSSELL
MAJOR ROBERT E. HILDNER



ONE of the most frequently perpetrated myths in some professional and in most popular writing on the subject of insurgency is the importance attributed to the role of Communist ideology in insurgency.* Often considered an essential ingredient in the development of an effective revolutionary movement, Communist ideology has been viewed as the primary force responsible for motivating physically isolated and socially divergent guerrilla cadres and molding them into cohesive groups. Thus the reader of some contemporary literature on insurgency operations in such widely separated geographic regions as Latin America, Sub-Saharan Africa, and Southeast Asia often is left with the impression that members of these movements who are students, young intellectuals, and peasants all derive their basic inspiration from Communist doctrine.² This impression is further heightened by frequent press comment on the alleged close correlation between the

Marxist-Leninist "dedication" of guerrilla cadres and their "exceptional" combat capabilities.

In view of the continuing belief that Communist ideology is an important motivational force for the rank and file in most successful insurgency movements, it seems desirable to examine why this premise has become so persistent in American writings on the subject as well as to test its validity in the light of experience.

The tendency to see Communism as a central element in most insurgency movements may stem from three interrelated developments: (1) the highly charged ideological nature of the current East-West divergence, which, in relation to the lesser developed world, tends to exaggerate the role of Communist doctrine and thereby often obscures the less political but more realistic causes of insurgency; (2) U.S. inexperience in the general field of insurgency/counterinsurgency operations; and (3) the French doctrine of "*la guerre révolutionnaire*," which was used to justify the military operations against the National Liberation Front in Algeria.

*For the purpose of this discussion, insurgency is defined as a subversive, illegal attempt to weaken, modify, or replace an existing government through the protracted use or threatened use of force by an organized group of indigenous people outside the established governing structure.¹

The ideological divergence inherent in the present East-West confrontation has tended to focus undue attention on the allegedly significant part played by Communism and indoctrinated Communists in the revolutionary movements that continue to emerge throughout the lesser developed regions of the world. Many Americans are reluctant to accept the fact that real social and economic change in these areas often is virtually impossible without a violent revolution, from which frequently emerge governments that are authoritarian in nature and socialist or Marxist inclined. These Americans have tended to equate all revolutionary change with Communism.³ The ultimate result of this rather simplistic view is to see Communist doctrine as the basic motivational force responsible for most revolutionary and insurgent movements, even in instances where Communist participation is minimal or nonexistent.

Unfortunately, this fixation with the inflated importance of Marxism-Leninism has made it difficult for most Americans to realize that revolutionary activity and insurgency almost never spring from a single cause (such as Communist ideology) but rather from a combination of highly diverse political, socioeconomic, and interrelated personal/situational factors. Particularly significant among these is the nationalistic spirit so prevalent throughout much of the underdeveloped world today. Within many former colonial possessions and newly independent states, this spirit is often brought to a boil by young student/intellectual elements and directed toward the achievement of absolute independence from any form of foreign economic or political control. In other nations, characterized by backward and reactionary governments drawing support from traditional landowning oligarchies, similar student and young intellectual forces frequently focus on demands for rapid and thoroughgoing social, political, and economic change. Aware that the technological

revolution of the past several decades now makes such changes a real possibility, the young reformers are also acutely aware that entrenched traditionalist elements frequently will resist to the end any erosion of their power. Accordingly, the only apparent alternative often is the violent overthrow of existing governmental and economic structures. Thus, nationalism and a corollary drive for social, political, and economic change—rather than Communist ideology—have been the factors contributing most directly to the generation of a number of those successful revolutionary movements that have evolved during the past two decades within many areas of the underdeveloped world.

While Communist ideology per se is rarely responsible for the generation of an effective insurgency movement, Communist Party elements have been most successful in penetrating and influencing revolutionary groups, including those completely non-Communist in origin. Being excellent organizers and highly skilled propagandists, the Communists have also been most effective in exploiting popular and often legitimate discontent to accelerate the development of a potential revolutionary situation into an armed insurgency, thereafter directing it toward the achievement of Communist objectives rather than those sought by rank-and-file guerrillas. Indicative of this capability is the significant Communist influence now evident within those insurgency movements active in several Latin American nations as well as the increasingly strong Communist presence in a number of African revolutionary groups that were non-Communist in origin also.

Intimately linked to nationalism and demands for political change as causative factors of insurgency are several basic motivational issues which the effective insurgent leader can exploit to develop popular support for his cause. In most underdeveloped nations the appeal of these issues is to the landless peasant, the underpaid and underemployed urban

worker, and the small middle-class merchant. An insurgent leader's promises to initiate an effective agrarian reform program aimed at breaking up the large estates of the landed oligarchy almost inevitably draws strong endorsement from the exploited and landless peasant. This issue is particularly important in areas such as Latin America, where a still substantial rural population presses heavily upon available resources of arable land.⁴ For the landless peasant, whose livelihood frequently depends upon subsistence agriculture and who sees no action by the incumbent government to carry out any reform through which he can acquire title to land, the call to revolution by an insurgent leader often seems the only solution to his problem. In a similar manner, the obvious concentration of available wealth in the hands of a small elite—so characteristic of many lesser developed states—is another strong inducement to violent change. Aware of the chance for a better life but denied it by traditional economic and political systems and his own lack of familiarity with them, the peasant or underpaid urban worker often sees little possibility for change except through revolution.

Closely associated with the issues of nationalism, land reform, and concentration of wealth in the hands of a small elite is the revolutionary potential flowing from an economy based totally on the export of one or a few basic agricultural or mineral commodities. Although characteristic of most nations within the underdeveloped world, young nationalist-oriented students see such dependence as clear-cut evidence of economic imperialism on the part of the foreign states that purchase the bulk of these commodities. The student/intellectual elements, who often are themselves unable to find positions commensurate with their academic training in a stagnant economy or corrupt governmental bureaucracy, see industrialization and rapid economic development as essential to ending their nation's client status. And they see little possibility for

change outside the revolutionary process, since the government in power is usually representative of the interests producing these commodities. Thus, these and similar factors, when exploited effectively by popularly based leaders, form the actual cement necessary to fuse disaffected elements of a nation into a revolutionary force dedicated to overturning an incumbent government and creating a new social, economic, and political system. Within this process, however, Communist ideology sometimes does not come into play as a motivational factor influencing the rank-and-file insurgent, even when the guerrilla leader himself is a Communist.⁵ Accordingly, the net effect of emphasizing Communist ideology as a key element in the generation of insurgency often has been to downgrade the real causes of such activity and thereby render them more difficult to eradicate.

The unwarranted importance attached to Marxist-Leninist ideology as a cause of insurgency also results, in part at least, from limited American experience in this field. In contrast to a number of Western European nations that for many years have faced the problem of revolution and guerrilla warfare in their colonial possessions, the United States has not undergone a like experience except for earlier military ventures in noncolonial areas such as Haiti, Nicaragua, and the Philippines. Accordingly, much of our knowledge of modern-day revolutionary warfare, and insurgency in particular, has been derived from study and analysis of Communist writings. Thus guerrilla leaders such as Mao Tse-tung, Ho Chi Minh, Nguyen Giap, and even "Che" Guevara have seen their commentaries, diaries, and writings turned into virtual reference works on the subject. As a result there has been a natural tendency for many students of insurgency and revolutionary warfare to accept not only the strategic and tactical analyses of these authors but also the importance they accord to the role of Marxist-Leninist ideology. This tendency, in turn, has done

much to re-emphasize the alleged importance of Communism as a "critical" unifying and motivating force in the development of an insurgent movement.

Contributing to the general acceptance by many American military and political leaders of Communist ideology as a motivating force in insurgency was the French doctrine of "*la guerre révolutionnaire*." Although this doctrine had its roots in the Indochina war against the Viet Minh, France used it also to provide an acceptable rationale for military operations in Algeria by alleging that that insurgency was either directed, controlled, inspired, or exploited by Communists. To reinforce this view, it was further inferred that the insurgency in Algeria was part of the overall Soviet plan to encircle Europe.⁶

Despite the fact that many if not most Americans continue to view insurgency as ideologically inspired, the rather substantial evidence accumulated in studies of both present and past revolutionary movements clearly refutes this belief. As pointed out previously, successful insurgent operations normally result from a combination of two basic elements: (1) significant and deeply felt political and socioeconomic factors strongly affecting one or more key population segments (usually including the young intellectuals/students and the peasantry); and (2) a charismatic leader capable of mobilizing armed dissent around these grievances.⁷ Thus in the Cuban revolution of 1956–59 Fidel Castro, one of the most magnetic Latin American leaders of the past decade, exploited very effectively the real and imagined grievances of Cuba's peasantry and dissatisfied students/intellectuals in order to develop a climate suitable for insurgency. For the peasants he demanded a much-needed program of agrarian reform,⁸ and for the middle-class students and intellectuals he demanded a much-desired end to corrupt politics, a thoroughgoing reform of governmental administrative practices, and a return to the constitution of 1940.⁹ Ideology, specifically

Communist ideology, was never a factor of significance in mobilizing popular support for this revolution. In this connection it is interesting to note that even a professing Marxist such as Régis Debray has admitted that ideological arguments and Communist propaganda are totally ineffective in generating support for an insurgent movement.¹⁰

As in the Cuban revolution, Communist ideology played an insignificant role in motivating the rank-and-file participants in most of the insurgent movements that have developed within other nations of Latin America and the lesser developed world. In each of these movements—even those in which the leaders were practicing Marxists—the issues exploited by them to generate popular support have been those very real and basic socioeconomic or political grievances of important population groups. One insurgency, reportedly resulting in an estimated 180,000 or more deaths during the decade 1948–1958, grew largely from such nonideological issues as a stagnant domestic economy, large landholdings and absence of any effective agrarian reform program designed to get land into the hands of landless peasants, intense rivalries between non-Communist political groups, and an economy geared to a single basic export crop.¹¹ While Communist guerrilla leaders did not hesitate to exploit such issues in developing the insurgent movement, Communist ideology per se was conspicuously absent as a motivational force inspiring the guerrillas.

In Africa and Southeast Asia, basic and nonideological issues have been exploited by revolutionary leaders to mobilize popular support for an insurgent movement. In this connection, perhaps one of the best illustrations is the successful insurgency waged by the Algerian National Liberation Front (FLN) against the French from 1954 to 1962. In spite of the then relatively widespread belief of the American public that the Algerian insurgency was Communist inspired, directed, and controlled, there is little evidence to sup-

port this conclusion. The basic issues used by the FLN leadership to popularize their movement were nationalism and the economic and social discontent widespread among the Muslim segment of the Algerian population. Communist influence in the FLN was virtually nonexistent in the formative stages of the revolt. In fact, individual Communists did not join the FLN until well after the insurgency began, and the Soviet Union itself did not recognize the provisional government of the Algerian Republic (GPRA) until the fall of 1960. The role of Communist ideology, therefore, was indirect at best, and some argument can be made that the insurgency might never have developed at all if the French had acted to reduce the economic, social, and political causes of Muslim discontent.¹²

In Southeast Asia, another example can be drawn from the Malayan insurgency that spanned the period from 1948 to 1960. Although the insurgency was directed and controlled by the Malayan Communist Party (MCP), its roots were in the deep-seated historical problem of communal relations between the indigenous Malays and the immigrant Chinese, who were systematically excluded from participation in the civil administration of the country. The MCP, which traditionally drew its membership from the Chinese community, exploited the sense of social isolation experienced by the Malayan Chinese. This exploitation was significantly assisted by the wartime record of the MCP and the success of the Communists on mainland China. To combat the insurgency, the British instituted a number of counterinsurgency measures, not the least effective of which was the announcement that Great Britain intended to grant self-government and independence as soon as order was restored and a common Malay citizenship and government established. The widespread publicity accorded the British avowal reduced the appeal of the MCP to the Chinese community and lessened the latter's support of the MCP.¹³

While Communist ideology has been relatively unimportant as a motivational force during the military phases of any insurgency, it often plays a much more significant role once the revolution has been completed. After the victory, certain goals that had been useful inducements to insurgent participation during actual antigovernment military operations have to be realized: agrarian reform, social and economic change, elimination of a wealthy oligarchy, an end to foreign economic and political domination, etc. To achieve these goals, the often undisciplined guerrilla and his unit leader are unsatisfactory instruments. Instead, a unified and trained political cadre, able to implement revolutionary change, is essential. In the organization of this cadre, the unifying bonds of a common and seemingly progressive economic and political ideology such as Marxism-Leninism are quite valuable. The experience in Cuba, following Castro's January 1959 assumption of power, illustrates clearly the importance of such a trained cadre and ideological base. Not long after placing his guerrilla leaders in control of various governmental agencies during 1959, Castro began to realize that little but chaos was flowing from the disorganized efforts of these insurgents-turned-administrators. To correct this situation, the Cuban leader began the movement of trained and disciplined organizers of the old-line Cuban Communist Party into key governmental, industrial, and union positions during the early 1960s, thereby providing the new regime a much-needed sense of stability and organization.

In the process of making these changes, Castro apparently also foresaw the need to create an "indigenous" ideological basis upon which to build a "new Cuba."¹⁴ Accordingly, he initiated an intensive "educational" campaign aimed particularly at the indoctrination of young revolutionaries in his peculiarly nationalistic interpretations of traditional Marxist-Leninist doctrine. Personally loyal to Castro and well indoctrinated in his revolutionary

concepts, these "new Communists" have gradually replaced the older party members in most key government posts. Thus the net effect of these activities has been to create not only a reliable political cadre, able to initiate revolutionary change, but also a body of common revolutionary doctrine that links together members of the ruling hierarchy and provides the essential philosophical and ideological underpinnings for the regime. Of particular interest in regard to this aspect of the Cuban experience is the fact that rather similar patterns of development have been evident in some radical postrevolutionary governments within Sub-Saharan Africa.

IN THE GROWTH of revolutionary movements in the underdeveloped areas of the world, available evidence indicates that neither Communist ideology nor a nationalized variant thereof has been a significant motivating force for those insurgent cadres involved in the military phases of a revolution. Instead, they are most often moved to action by a combination of two factors: (1) the belief that only violent revolution can achieve effective social, political, and economic change within their nation; and (2) the often deep-rooted feeling that such change is essential for the achievement of a better life. With these considerations in mind, the skilled insurgent leader—whether Communist or non-Communist—normally

plays down any ideological commitments he might have and instead focuses his appeals directly on the problems affecting those population groups whose support he seeks. These generally include the peasantry, urban workers, and elements of a nationalist-inclined student/intellectual community. The appeals usually stress such practical issues as land reform for the landless peasantry, full employment for unemployed urban workers, and an end to governmental corruption and foreign economic/political intervention.

While these issues are equally exploitable by both non-Communist and Communist insurgent leaders, the latter are particularly well skilled in their use. Well trained in the techniques of propaganda and agitation, they move quickly into positions of leadership within an insurgent movement, subsequently directing it toward the attainment of purely Communist goals and objectives—aims not necessarily synonymous with those sought by the rank-and-file insurgents. After the revolution has been successful, some form of Communist ideology plays an important role as an ideological underpinning and rationale for those political and economic changes programmed by the new regime. Thus, Communism, even when not a primary motivator for guerrilla warfare, retains a meaningful role in revolutionary activities within the underdeveloped world.

Directorate of Special Investigations, Hq USAF

Notes

1. *Human Factors, Considerations of Undergrounds in Insurgencies* (Washington: American University, Special Operations Research Office, 1966), p. 1.

2. Illustrative of this literature are publications on the Cuban revolution by authors of a rightist persuasion, such as Nathaniel Weyl (*Red Star Over Cuba*), and those of a leftist orientation, such as Leo Huberman and Paul Sweezy (*Cuba, Anatomy of a Revolution*) and Jean Paul Sartre (*Sartre on Cuba*).

3. For an evaluation of the dangers flowing from this view see, among others, Chas. O. Lerche, Jr., *The Cold War and After* (Englewood Cliffs: Prentice-Hall, Inc., 1965), pp. 58-59; Edmund Stillman and William Pfaff, *The New Politics: America and the End of the Cold War* (New York: Coward McCann, Inc., 1961), pp. 40-60; Morton A. Kaplan, ed., *The Revolution in World Politics* (New York: John Wiley & Sons, 1962), pp. 216-23.

4. Thomas F. Carroll, "The Land Reform Issue in Latin America," in John D. Martz, ed., *The Dynamics of Change in Latin American Politics* (Englewood Cliffs: Prentice-Hall, Inc., 1965), p. 174. In Latin America as a whole, roughly 90 percent of the land is controlled by 10 percent of the people. As pointed out by Carroll, this degree of concentration is far greater than in any other region of the world of comparable size.

5. For an excellent discussion of those factors generating insurgency and the insignificant role of Communist ideology in that regard, see P. Kecskemeti, *Insurgency as a Strategic Problem* (RAND Corporation Memo RM-5160-PR, February 1967), pp. 21-24.

6. See D. M. Condit et al., *Challenge and Response in Internal Conflict, Vol. III, The Experience in Africa and Latin America* (Washington: American University, Center for Research in Social Systems, 1968), p. 177.

7. Merle Kling, "Cuba: A Case Study of a Successful Attempt to Seize Power by the Application of Unconventional Warfare," in *Annals of the American Academy of Political and Social Science*, May 1962, vol. 341, p. 47.

8. Fidel Castro, *Pensamiento Político, Económico y Social de Fidel Castro* (Havana: Editorial Lex, 1959), pp. 44-45. See also Edwin Lieuwen, *Arms and Politics in Latin America*, rev. ed. (New York: Frederick A. Praeger, 1961), p. 264; and Merle Kling.

9. A careful analysis of the development and susceptibility of Cuba's middle class to Castro's appeals is contained in J. Alvarez Diaz et al., *Cuba: Geopolítico y Pensamiento Económico* (Miami: Duplex Paper Products, 1964), pp. 397-418. As pointed out so well by Theodore Draper in *Castro's Revolution, Myths and Realities* (New York: Praeger, 1962), the Cuban middle class (including strong student, intellectual, and professional elements) was the population group primarily responsible for the success of the revolution.

10. Regis Debray, *Revolution in the Revolution* (New York: Grove Press, Inc., 1967), pp. 53-54. Another significant refutation

of Communist ideology as an important motivating force for an insurgent movement is contained in Fidel Castro's 10 August 1967 speech to the final session of the Latin American Solidarity Organization (LASO), reprinted in *Discursos* (Havana: Instituto del Libro, 1967).

11. John J. Finan, "Colombia (1948 until 1958)" in Condit et al., pp. 419-20.

12. Paul A. Juredini, *Case Studies in Insurgency and Revolutionary Warfare: Algeria 1954-1962* (Washington: American University, Special Operations Research Office, 1963), pp. 7-15.

13. Condit et al., p. 462.

14. Castro's awareness of the need for such an ideological base was clearly evident in a speech he made in December 1961 at Havana's "Universidad Popular." This speech was reprinted in the Cuban magazine *Bohemia*, No. 50, 10 December 1961, pp. 48-55 and 84-87, under the caption "El Programa del Partido Unido de la Revolución Socialista Será un Programa Marxista-Leninista, Ajustado a las Condiciones Objetivas Precisas de Nuestro País."

Basis of Issue of Air University Review

USAF Recurring Publication 50-2

Active duty USAF generals, colonels, DAF civilians GS-16-18, air attachés	1 ea. (distribution to gen off handled by Editor, <i>AU Review</i>)
OSAF and Hq USAF	1 ea div plus 1 ea 10 off*
Hq major air commands & Hq AFROTC	1 ea 10 off* & 2 info office
Hq numbered AFs, ACIC, AFAFC, AAVS, ARRS, AWS, USAF Recruiting Svc, etc.	1 ea 15 off* & 2 info office
Hq of divisions & wings, groups, squadrons, flights, detachments, centers, depots, districts, hospitals, laboratories, MAAGs, missions and their detachments, etc.	1 ea 20 off*, 2 info office, 1 ea gp & sqdn comdr
AFROTC detachments & subdetachments	1 ea
Air National Guard	1 AG ea state, 1 ea state ANG hq, 1 ea wing & sqdn comdr, 2 ea gp comdr
Reserve organizations	1 ea 20 off* at ea hq of reserve regions, wings & groups, 2 ea gp comdr, 1 ea sqdn comdr
USAF numbered & base libraries	1 ea & 1 ea physically separated branch
USAF schools	1 comdt*, 1 ea 10 off on staff & faculty, copies for students as requested by comdt
AWC, ACSC, SOS, AUIPD	1 ea faculty member* & ea student
USAF NCO academies	5 ea academy

*Below rank of colonel.

Fractions of a multiple should receive 1 copy.

If your organization is not presently receiving its authorized copies of the *Review*, consult your Publications Distribution Officer.

THE EDITOR

Air Force Review



TRUONG CHI-HUY VA THAM-MUU

MAJOR ALBERT D. MCJOYNT
MAJOR JOSEPH R. SANCHEZ
MAJOR FRAINE C. ZEITLER

THE Vietnamese Air Force opened its first professional military educational school, Truong Chi-Huy va Tham-Muu (CHTM), or Command and Staff School, Intermediate Level, on 2 January 1970. Located at Nha Trang, it was organized with the assistance of a Mobile Training Team from Air University. This was the first use of an MTT to assist an Allied nation with its professional military education (PME), their previous oversea efforts having related to technical training.

Air University received a request from the Air Force Advisory Group (AFGP), Military Assistance Command, Vietnam (MACV) in late October 1968 to help the VNAF start a PME system with a school similar to the USAF Squadron Officer School (SOS). This VNAF requirement was the result of a rapid increase in the VNAF officer corps without a corresponding increase in PME facilities. The advisory group recommended that a training team, consisting of experienced SOS faculty members, deploy to Vietnam and assist

the VNAF in developing the school's curriculum and jointly conducting the first class.

Planning groups started working on AFGP's request in November 1968 and prepared recommendations on team composition, VNAF faculty and curriculum, and a PME orientation program. In January 1969, the SOS Commandant selected three of his faculty members for the AU training team, which would develop a basic curriculum, conduct the orientation program at Maxwell AFB, and assist in training all the CHTM staff in Vietnam.

The team and the school's director and chief of curriculum completed most of the curriculum planning by 1 August 1969. The curriculum covered five areas: communicative skills, leadership, national power and international relations, management, and employment of military forces. Over 120 periods were identified and lesson folders prepared to guide later detailed research. The team also identified, collected, and mailed support materials to Nha Trang.

The MTT chief arrived in Vietnam in late August, and the other two members arrived in early November. The faculty reported to Nha Trang on 1 September except the section commanders, who arrived on 1 October after attending SOS Class 69-B and the Academic Instructor Course. Detailed lesson planning and construction of the facilities started on 1 September.

On 2 January 1970 Major General Tran Van Minh, VNAF Commander, officially opened the first class. Thirteen weeks later, on 31 March, 39 officers completed the course on schedule, and only a few problems with the new curriculum and facilities. The school had accomplished its mission by providing selected junior VNAF officers the necessary skills, knowledge, and attitudes needed in establishing a dedicated and professional officer corps.

Significant Project Features

Our chief planning tool was the Program Evaluation and Review Technique (PERT) network that we developed. This network, designed for the period April 1969 through January 1970, had several advantages. First, it forced us to review the project in its entirety. It permitted us to see and resolve potential problems quickly. Those problems we could not resolve until we reached Vietnam were adequately identified so that we knew what information to get or what actions to take upon our arrival. Second, we could show other agencies the plan of action selected for the entire project and the areas where we expected problems or would need additional support. Finally, since the team and the key faculty members worked together in using the PERT network, the VNAF officers could readily clarify our understanding of the in-country problems that would be associated with the project.

orientation program

The orientation program was conducted during April-August 1969, when the school director and the chief of curriculum monitored Class 69-B of the Squadron Officer School. Detailed briefings and workshops were conducted on the

five SOS curriculum areas, the major activities and responsibilities of every SOS directorate, and key planning and operating procedures. The two VNAF officers also observed a variety of lectures, seminars, field activities, and formal and informal social events. They also discussed professional military education with other Air University personnel.

The orientation program was very important. It exposed the two CHTM faculty members to the total SOS program. We explained each lesson period and how the periods blended together for a complete program. At the same time, we also learned about problem areas in Vietnam. Finally, the orientation period helped us establish excellent rapport with the Vietnamese officers. Working with them and bringing them into our homes and social events helped remove the barriers to effective communication. What we gained from the orientation program enabled us to move rapidly and effectively when we got to Vietnam.

visit to Philippine school

The team learned much about the operation of a small professional military school from a presentation by the faculty of the Philippine Air Force Officer School (PAFOS). During the earlier planning meetings at Maxwell it was recognized that the team members were not familiar with small professional school operations, especially one operating in the Far East. The Air Force Advisory Group decided that the team should visit the PAFOS at Nichols Air Base, Pasay City, Philippines, while en route to Vietnam. That school had a faculty and student size comparable to that planned for the school in Vietnam. Also, the PAFOS course was taught in English, and all the faculty spoke English.

The team took part in several PAFOS workshops and obtained useful information on scheduling, field leadership activities, field-grade officer students, and section commander orientation programs. We met informally with several of the section commanders and the course director and discovered that the school had made extensive use of Philippine Air Force (PAF) and civilian guest lecturers in its curriculum. That PAF Headquarters was giving the school excel-

lent support was apparent from the dynamic school program and the enthusiastic PAF personnel we met.

Project X

A highly successful part of the Truong Chi-Huy va Tham-Muu curriculum was Project X, an outdoor leadership laboratory or reaction course, three sessions of which were conducted during the first class. The Mobile Training Team conducted the first session for the entire staff, under the same ground rules and time sequence used in the following two student sessions. The purpose of Project X is to give the students an opportunity to practice their newly acquired knowledge of the principles and concepts of leadership, problem solving, and group dynamics techniques. At the end of each task in the laboratory, the students are given a critique, or feedback, by a faculty member. The faculty member gives his observations on the interactions he saw and points out both the effective and ineffective leadership roles, problem-solving techniques, and human relations situations that occurred. He offers the students different or new methods and approaches to improve their skills and techniques in these three areas.

The Project X facility consists of eight simulated combat situations or tasks. For safety reasons, mine fields and other dangerous or hazardous conditions have been modified or replaced with a system of fouls and penalties. In some tasks, rivers have been replaced by water pools, and six-foot-high platforms have been substituted for bridge towers. This provides each task with a physical challenge and taxes the confidence of any student who is afraid of water or heights. Each task requires a six-man team to solve the specific situation with certain pieces of equipment. Finally, the task must be completed in a specific time period, 15 minutes in the CHTM program. This specially designed facility and the time pressure element add a new dimension or view of people operating in a stress condition.

Constructing the Project X facility was one of our biggest jobs. While at Maxwell, the team had designed an eight-task facility patterned after the sos Project X. Diagrams, blueprints,

and photographs were assembled for use in Vietnam. However, the VNAF construction personnel did not know English, so they started using the photographs rather than the blueprints. Anyway the blueprints were based on 1968 construction information that the MTT had received from USAF personnel returning from Vietnam, and the situation had since changed. So the blueprints had to be redone, using different materials, primarily metal pipe and salvaged angle irons. In spite of the material problems and the wet weather encountered, the VNAF completed the Project X facility on schedule. At present it is the only group leadership laboratory in Southeast Asia.

Key Aspects of the CHTM

One of the most interesting aspects of the school was the class composition. Although the school is designed for company-grade officers, the first class included 11 majors and 28 captains. The majors were promoted under a waiver from VNAF Headquarters that permitted certain officers who met all the promotion criteria but had not completed a professional military school to be promoted to major provided they attended a PME school at the next possible date. The waiver helped maintain the integrity of the VNAF officer promotion system and did not penalize those officers eligible for promotion who could not attend a PME school because of unit wartime requirements. This personnel action presented a possible threat to the success of the course.

The faculty and the team were concerned about the possible negative reaction between the students and the section commanders. Each student section contained nine or ten majors and captains, because of the promotion waiver action. Also, each section had a faculty adviser, called section commander, a VNAF captain. (One of the four section commanders was promoted during the first class.) Most of the learning takes place in the section seminars, where the curriculum and related student experiences are discussed openly and freely. Because of the mixed ranks in each section, we feared that free discussion would be restricted and the





Alliance for Education

If activities at Truong Chi-Huy va Tham-Muu, first professional military school of the Republic of Vietnam Air Force, look familiar to graduates of USAF's Squadron Officer School, it may be because a team from SOS helped plan the school, near Nha Trang. The USAF team then assisted the Vietnamese faculty in conducting the first 13-week course.

students would gain little from the seminars. Since most of the majors were group or squadron commanders and all outranked their section commanders, the possibility existed that they would feel that the school had little to offer them and that being a student degraded their position. However, this situation was resolved by General Minh in his opening address and guidance to the students. Moreover, the section commanders used tact and good human relations in their daily contacts with all the students. In addition, the director and his three division chiefs monitored the daily class activities and resolved incidents or situations before they could disrupt the sections or the school.

subject matter

Although the CHTM is closely patterned after our SOS, the curriculum is tailored to fit VNAF needs. The concepts of writing and speaking are similar to those in the SOS, but the writing assignments are based on specific VNAF situations and require specialized VNAF writing formats. In the leadership area, most of the concepts and principles contained in Air Force Manual 50-3, *Air Force Leadership*, were used. The group dynamics portion, including Project X, was new to the Vietnamese. Much to our surprise, we found that these Western-oriented concepts and principles were readily accepted. Both the faculty and the students felt that this material was important and useful in their daily contact with others. The national power and international relations subject area, which contained basic material on the democratic and communist ideologies, was presented by capable Vietnamese civilian and military guest lecturers. This area was tailored to the present ideological conflict in Vietnam, with emphasis on the rural pacification program and regional political organizations. The fourth area, management, contained several periods adapted from the Squadron Officer School. However, the curriculum did not go into detail on computer sciences or PERT. Instead, the CHTM faculty stressed a Vietnamese modification of PERT called Program Review and Analysis Evaluation (PRAISE). The employment area was specifically tailored to the Vietnamese armed forces, much of the

subject matter dealing with the use of air power in support of ground operations. Some lectures were presented on the principles of war and basic air doctrine. Guest lecturers presented material on the other roles of air power and other service functions. In all, over 468 hours were spent in the CHTM curriculum.

methodology

Several methods were used in presenting the curriculum. The lecture method was used quite extensively because textbooks were not available. Civilian, other military, and government official guest speakers presented about a fourth of the lectures. The faculty lecturers prepared over 70 student reading handouts and numerous lecture outline guides. About half of the guest lecturers provided the students with individual reading handouts or lecture guides. The school staff is presently compiling this information for future textbooks.

The school conducted two field trips during the first class. The entire class visited several Vietnamese and Allied units in the Da Lat and Nha Trang areas. These orientation visits provided the students a better understanding of the mission and operation of the advanced schools at Da Lat, the Vietnamese Rangers, the Vietnamese Navy, and the Korean Army in Vietnam. The field trip also provided a change of pace in the school's demanding curriculum and was a definite asset.

The faculty used two programmed texts during the first class. These were "Logical Thinking (Communicative Skills)" and "PERT (Management)." Both were translations of Squadron Officer School texts and were modified by the CHTM faculty to fit the VNAF situation and needs. The PERT text was very basic and introduced the CHTM's block of instruction on PRAISE. The results obtained from the first use of these two texts were very promising, and the CHTM faculty is revising them for use in the second class.

mode of operation

The CHTM was a VNAF-operated program. One objective of the project was to insure that the Vietnamese learned how to operate the

school themselves. The key faculty and the MTT agreed at the start of the project that the school had to be operated by the Vietnamese to succeed as a VNAF professional military educational institution. It was very important that the first class be completed successfully with VNAF leadership and performance. Once the faculty training and planning were completed at the end of December 1969, the school was run entirely by the VNAF faculty; the MTT only monitored the daily school activities and offered suggestions to the director and his staff. The team's role was restricted by the language factor.

The entire course was taught in Vietnamese. Since time did not permit the training team to attend a formal Vietnamese language course, they could not teach or lecture to the students. Many of the students in the first class were not proficient in the English language. Consequently, both the Air University and the Squadron Officer School planning groups recommended that English not be used in the course. Past experience indicated that greater learning and understanding would result if the Vietnamese language was used. When special English terms or words were used because they could not be clearly translated, there was no problem. The faculty successfully resolved these language

situations, and the class was completed on schedule.

THE Air University Professional Military Education Mobile Training Team was able to complete its mission successfully for several reasons. It received excellent support from numerous organizations at Air University, Seventh Air Force, Air Force Advisory Group, MACV, and United States Air Force and Army units in II Corps, Republic of Vietnam. The Truong Chi-Huy va Tham-Muu faculty performed a difficult task in an outstanding manner, especially the director and his division chiefs. The initial planning and the PME orientation program were apparently the most important factors in the project's success.

The Mobile Training Team concept has great value in establishing a professional military educational system in other countries. Some aspects of the MTT concept were modified because of the nature of professional military education or the conditions that existed in Vietnam. However, the concept did work. More important, the young and growing RVN Air Force now has the opportunity to improve its officer corps effectiveness and help its country; it has gained new strength through knowledge.

Squadron Officer School, Air University

In My Opinion

INTERDICTION

A Dying Mission?

CAPTAIN ROBERT O. HEAVNER



IN our last three applications of tactical air power—in World War II, Korea, and Southeast Asia—interdiction has been a major effort. But measurable results from interdiction in these conflicts have ranged from highly successful to disappointing. Since the beginning of the air campaign in Southeast Asia, independent researchers, military planners, and members of Congress have investigated the results of the interdiction effort there.¹ When one compares OVERLORD (Normandy) and STRANGLE (Italy) of World War II with interdiction in Korea and in Southeast Asia, it appears that the usefulness of this mission has diminished with time.² Of course, this implies that interdiction, like the cavalry horse, will become decreasingly useful in the future and should be similarly retired. And in an era of military budget cuts and emphasis on cost effectiveness, an emotional attachment to “old horses”—equipment or missions—must not stand in the way of providing the best possible defense posture for a given budget.

Before writing off interdiction and consigning it to the archives, however, one should consider whether interdiction’s usefulness really is simply a question of time or is, perhaps, determined by technology, which changes with time. It was not some natural decay over time but changes in weaponry that killed horse cavalry. But trucks, bridges, and railroads—all traditional interdiction targets—have experi-

enced no quantum technological jump since World War II. And though jet aircraft are among interdiction weaponry, so are aircraft of World War II and Korean War vintage.³ So, simply substituting technology for time does not explain the apparent decline in interdiction's utility.

Contemporary critics say that interdiction has proved too costly in Southeast Asia or that it does not yield results commensurate with its cost. While these statements appear to be relevant, they leave unanswered the question: At what point does the cost/benefit ratio of interdiction become too heavy on the cost side and interdiction therefore become an infeasible mission? While advocates of interdiction accurately point out that limitations and a lack of lucrative targets have prevented a fruitful interdiction campaign in Southeast Asia, they simply beg the question of interdiction's value in a limited-war environment.

The problem with all these arguments is that they fail to offer data meaningful to the decision-maker, who cannot really duplicate the environment of World War II and must treat the limitations as given. This decision-maker must choose between alternative missions (interdiction, close air support, artillery, and infantry), each having associated payoffs and costs; he must choose either to maximize the attainment of some goal, within a given resource constraint, or to achieve some goal with the minimum use of resources.

Given the military decision-maker's need to allocate resources optimally, one can see parallels between his problem and the allocation models of a business firm developed by an economist to determine the firm's optimal combination of inputs, land, labor, and capital. This is not to say that the military's problems are directly comparable to those of the firm's manager, who seeks profit in a market environment, but that the manager and the military decision-maker both act rationally to allocate scarce resources optimally.

Facing both the firm and the military decision-maker are costs, which are simply a way to measure the use of scarce resources. Whether we keep track of costs with dollars or with physical units, what really matters is the activities we

forego to do what we are doing. A nation foregoes schools to fight a war; a defense establishment buys aircraft at the expense of more artillery; and a theater commander sacrifices close air support to conduct interdiction. At each level an action has an associated opportunity cost—the value of foregone action.⁴

Particularly important in allocation problems is marginal cost, the cost of one more unit of the input being examined. Marginal cost is the cost of the next unit and may be quite different from average cost, which is the total cost divided by total units employed.⁵ For example, the total cost for 10 new aircraft is \$50 million, of which \$20 million is sunk cost. The cost of one unit then is \$5 million. But the cost of the eleventh unit (not yet built) will not be \$53 million divided by 11 (\$4.8 million) but \$3 million as the relevant cost—the marginal cost.

The economist's attention to the margin includes not only cost but also output or product. Here again it is not the total but the marginal product that merits attention.⁶ The significance of both marginal cost and marginal product is that the decision-maker focuses his attention on the margin, not on all that has occurred. The least-cost combination of inputs (land, labor, and capital for the firm's manager) will be the one where the ratio of marginal product (MP) to marginal cost (MC) is the same for each input. This means that the last unit of the input yields the same addition to total product per dollar as the last unit of every other input. If this relationship is satisfied, we can say that cost for some given output has been minimized or that output for some given budget or cost level has been maximized.⁷ To employ some other combination would mean that the marginal product per dollar from an additional unit of one input would be higher than the marginal product per dollar given up by using one unit less of some other input. The technique is little more than applied common sense, and in economics textbooks it yields precise answers that can seldom be found in real life. But the application of this method can permit a manager or a decision-maker to be roughly right or "in the ball park" as far as finding the optimum factor combination.

Of course, the next question quite naturally

is: What does this analysis contribute to the evaluation of interdiction? Although there is considerable difference between the firm and the defense establishment, perhaps we can move from the firm to the defense problem and retain the method's usefulness.

To do this, we must view interdiction as an input to a conflict, just as land, labor, and capital are to a firm; other inputs to the conflict include close air support, artillery, and infantry. But in doing this we are forced to face the formidable problem of defining output from our effort in the conflict, and this proves to be quite complex in a military problem. A "war machine" does not turn out automobiles, men's suits, or other easily counted units of output. Victory or the enemy's surrender are certainly desired goals, but unfortunately they cannot be quantified. Yet can we not use some lower goal as a unit of product? Though wars are not fought simply to produce enemy casualties or a favorable enemy/friendly casualty rate, they give some measure of progress toward the higher goal of victory. The interdiction pilot measures his output in trucks destroyed, bridge spans dropped, or roads cut, and the infantryman counts bodies, weapons captured, and ground taken. While both contribute to defeat of the enemy, it is difficult to state the contribution of each in comparable units. But this is necessary to decide if we have equal MP/MC ratios at the margin for the two inputs and hence an optimum allocation. In the selection of some measure of output, care must be taken not to choose one that slights either input. For example, using enemy casualties alone would tend to favor infantry and close air support over interdiction, because interdiction directly yields few casualties, and these may be indeterminable if they occur in territory that cannot be occupied.

This is not to say that the analysis should be discarded but is to say that the analysis is a difficult one, requiring assumptions that must be clearly stated and continually revised. This updating of assumptions can be accomplished by several methods. First, we can critique our performance after a war through a study such as the Strategic Bombing Survey after WW II. Second, we can seek better intelligence during a

conflict. Third, we can experiment on test ranges or in joint peacetime exercises to see if the assumed probability of destruction of a target is accurate. In Southeast Asia, for example, B-57 crews used improvised night tactics for which no circular error average had ever been established. Although trucks were seen to burn after a strike, airborne post-strike damage assessment could seldom determine whether or not a truck or its cargo was definitely destroyed. Other useful methods are gaming and simulation, which permit the investigation of interdiction vis-à-vis other missions under a variety of scenarios and give military planners participating on both sides of a game some insight into which mission impacts most upon the enemy.

Again, economic analysis is no panacea; it merely points out how much more we need to know in order to avoid gross errors, and it gives us some confidence that we are in the ball park with regard to allocation between interdiction and alternative missions.

TRADITIONALLY, military planners have been challenged for applying the lessons of the last war to the next one. Yet it is important to remember that the lessons of the last war were painfully learned and are difficult to put aside. And where interdiction is concerned, our most recent experience might lead to the conclusion that this mission is dying with time and should be de-emphasized in future wars. This can be as significant an error as claiming, on the basis of World War II experience, that interdiction in any conflict can drastically reduce the enemy's ability to fight. Critics who claim that interdiction is a dying mission err in comparing its success in World War II, as an absolute standard, to its use in the present conflict. What they must do is compare 1970's interdiction as an input to the other inputs—close air support, artillery, and infantry—in the 1970 conflict, not to interdiction in past wars.

More important, the military decision-maker must conduct this kind of analysis for every possible future scenario, whether a limited war in Asia or a 90-day war in Europe. It is entirely possible that our allocation among missions in

Southeast Asia was not optimal because of too much emphasis on interdiction. The opposite may also be true. Popular pronouncements on the interdiction campaign have been based on imprecise analyses comparing interdiction in Southeast Asia to that in World War II. These conclusions fail to recognize the economic nature of military decision-making, and, most important, they lead to incorrect predictions about the future role of interdiction.

At this point in time we need neither rhetoric about what interdiction could have done without the limitations in Southeast Asia nor some last-ditch defense of its usefulness. We *do* need better analysis, objective and rigorous analysis that recognizes the economic nature of allocating resources among interdiction and alternative missions.

Kirtland AFB, New Mexico

Notes

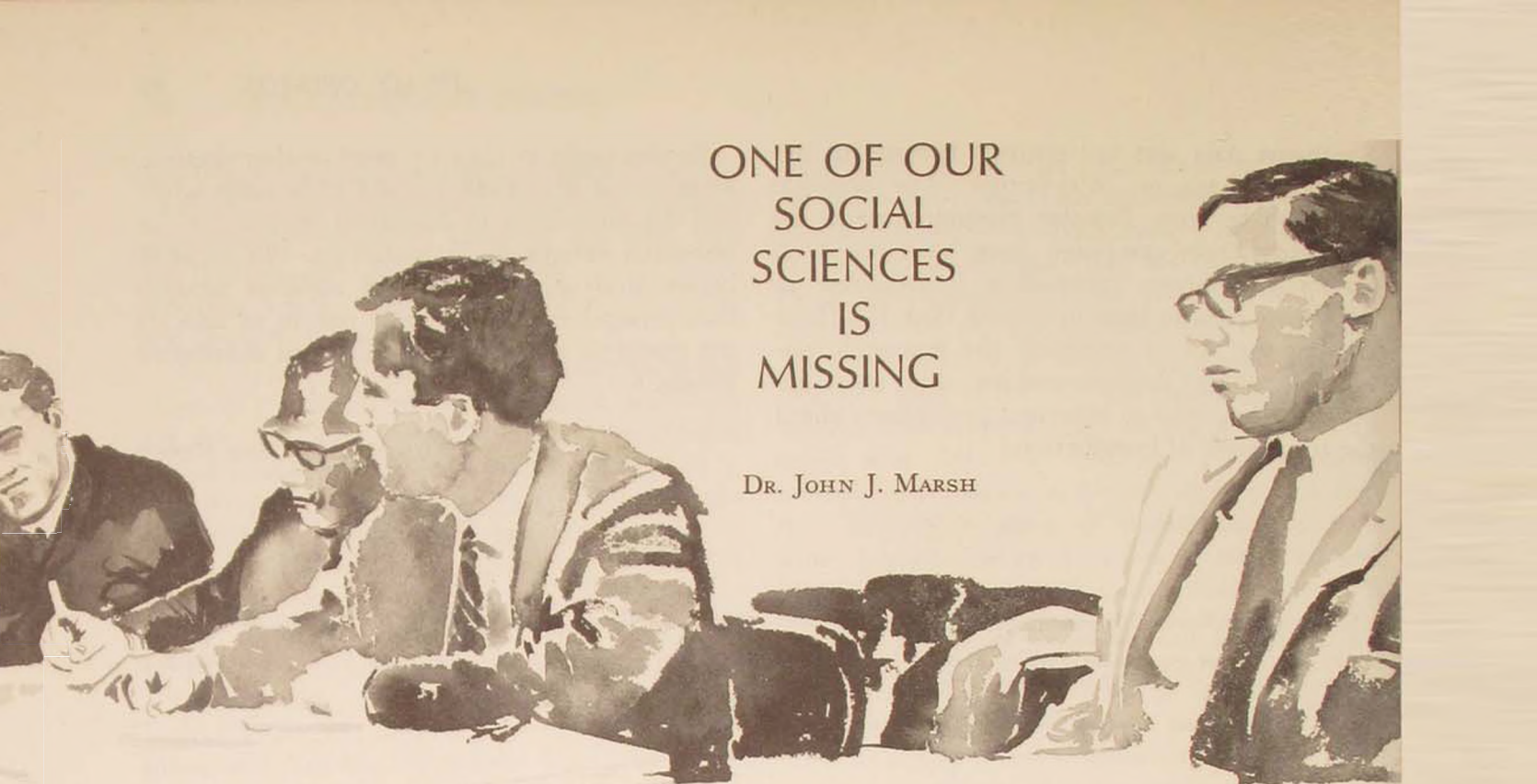
1. "Diminishing Returns," *Newsweek*, September 4, 1967, p. 38.
2. Don Clelland, "Air Interdiction: Its Changing Conditions," *Air Force and Space Digest*, June 1969, pp. 52-56.
3. Dennis Nielsen, "An Old Breed of Cat," *Navigator*, Spring 1968, pp. 44-45.
4. Alain C. Enthoven, "Choosing Strategies and Selecting Weapons

Systems," address before the Naval War College, Newport, R.I., 6 June 1963.

5. Paul A. Samuelson, *Economics* (New York: McGraw-Hill Book Company, 1967), pp. 456-57.

6. *Ibid.*, pp. 513-14.

7. *Ibid.*, pp. 519-20.



ONE OF OUR SOCIAL SCIENCES IS MISSING

DR. JOHN J. MARSH

DURING the past forty years the American people have been concerned with armed conflicts from Formosa to the Suez, from Ethiopia to the Dominican Republic, and from Guadalcanal and North Africa through Iwo Jima and the hedgerows of Normandy to Berlin and Tokyo. We have dictated surrender terms on the deck of the battleship *Missouri*. Our endless negotiations at Panmunjom, Korea, are like the proverbial twitching of the snake waiting for sundown. We are now fighting in South Vietnam while a major debate goes on in our country as to why.

We rushed to build a missile force to fill a gap which many authorities later said was not there. In Vietnam we have flown planes that were obsolete before some of their crew members were born. Our casualty lists have included names put there by Viet Cong spears and cross-bows.

Despite the way war and military affairs surround us and often dominate our lives, we remain ignorant of the principles, techniques, and theories involved in these activities. We divide ourselves into emotionally and morally oriented

groups and label each other with epithets such as dove or hawk, pacifist or imperialist, peacenik or militarist. Some who seek a middle ground have even been labeled chicken hawks.

A man who invests his life savings in the stock market on the basis of his emotional beliefs rather than on study and analysis is sure to lose. Why, then, do we as voters and taxpayers insist upon gambling with our votes, our taxes, and even our lives when the payoff—much more than money—is national survival?

Most histories of World War II will contain the names of Admirals Halsey, Nimitz, and King, who led our naval forces to victory in the Pacific. But how many Americans have read of their predecessor, Admiral Albert Thayer Mahan? Though he spoke from the grave, he was truly the author of the concepts of naval strategy that were the basis of the successful defense of the western hemisphere in World War II. His ideas are part of the basis of our defensive posture today and for the future.

The memoirs of Generals Eisenhower and MacArthur are a record of their military successes in Europe and in the Pacific. But how

many Americans have ever read of Prussian General Karl von Clausewitz, who lived during the Napoleonic era? His "Principles of War" are ten timeless guideposts for all students of military strategy and tactics. They are as essential to the understanding of the use of military force today as they were when they were written.

General Curtis LeMay was the principal American proponent of strategic air power, both during and after World War II. But how many Americans ever heard of Giulio Douhet? This Italian air officer, writing between 1910 and 1930, formulated the concepts and theories that are still the basis for the employment of air power in this supersonic age.

Since 1959, we have spent over half of each year's federal budget on national defense, not including veterans' benefits or interest on the debt from past wars. Never have so few understood what so many must pay so high a price for.

Should we unilaterally withdraw from Southeast Asia? Do we build a manned strategic bomber to succeed the B-52? How will you vote for your senator up for re-election—the one who voted against funds for a nuclear-powered aircraft carrier? Do you agree with a Secretary of Defense who plans for highly mobile forces in the United States rather than forces permanently in place in overseas areas? Civil defense gets less than one percent of our federal budget; How do you feel about that? Does possession of a nuclear capability make a nation more likely or less likely to be attacked or to initiate nuclear conflict?

The answers to these and a myriad of similar questions concern more than the several million Americans in uniform. They concern more than the 110 million American voters and taxpayers. They concern more than the 200 million U.S. population. They concern all humanity. The American voter is the most important decision-maker in the world, but he is poorly prepared for decisions regarding military affairs because his formal education in this area is conspicuously lacking.

This plea is not related to either pre-emptive war or unilateral disarmament. Nor is it a vote for universal military training and a nation

of armed minutemen. It is a plea to remove the twin blinders of jingoism and pacifism; to excise the cataracts of emotional morality; to realize that decisions regarding national defense must be based on knowledge rather than wish, on fact rather than fable, on study rather than hope. This plea is not motivated solely by our problems in Southeast Asia. It is a timeless plea for a serious need in education now and in the foreseeable future.

In examining this subject, one begins to suspect a bias on the part of educators. Some professors act as if the only purpose of the military is destruction and the armed forces are dedicated to that end. Others have described the military as the height of institutional inefficiency. This latter view is contrary to the findings of the Hoover Commission on Government Economy and the Harvard Graduate School of Business Administration, both of which have cited the Department of the Air Force as one of the most efficiently administered departments of the entire federal government.

We must say to the educators, "What are you doing to teach the student about one of the most vital aspects of the world we live in? What do you, as educated people, know about national defense and military science? You profess to defer to the trained individual who possesses experience and knowledge in his field, yet the evidence is that when that individual is a military man on a military subject you become self-proclaimed experts, ridicule him, and deny what he represents. Worse still, you blindly reject the idea that this discipline has any place in general/liberal arts education. Thus, you perpetuate the ignorance of the citizen on a subject that concerns his survival."

Within the realm of the social sciences is the place for the missing discipline, military science, or the study of national defense. Here is where we should learn of the roles played by industry, civil government, financial institutions, natural resources, manpower, etc., in the national defense. Here is where we should learn of such matters as the pros and cons of service unification. The interplay between the Defense and State Departments and between military and political forces should be examined and discussed here. The theories behind military

discipline and the degree of individual freedom in military life should be explored. The role of the military in a democracy (as opposed to an autocracy) is another valid topic for discussion.

These are only a few of the ideas to be covered in this area of study. The end product will be a college graduate better able to view the military establishment objectively and wisely as he votes, pays his taxes, and, when necessary, serves his country.

It has been said that war is too important to be left to the generals. In our government, civilian control of the military is established on this basis. This control, by elected and appointed officials in the legislative and executive branches, ultimately resides in the people through the ballot. The degree to which they exercise this control intelligently is directly related to their education in the military subject.

At present, that education is, for the most part, informal and largely based on propaganda, hearsay, old wives' tales, and some usually parochial personal experiences. Very little of it is the result of serious study and analysis because this subject has not been made available in our colleges and universities except through programs such as ROTC.

There is a missing IBM card in the curriculum offerings in the typical college or university social science division today. That card ought properly to carry the title "Military Science" or "The Study of National Defense."

As I see it, this omission is a fault of higher education in the decade of the seventies, which is blind to the empty chair at the academic table.

One of our social sciences is missing.

Santa Fe, New Mexico

Books and Ideas

PREPLANNING THE USAF

Dogmatic or Pragmatic?

DR. ROBERT F. FUTRELL

WHERE historians seek to make sense out of the past, political scientists study past events as a source of lessons for current or future applicability. A historian who becomes too steeped in the past runs the risk of assuming that the way things happened was ultimately correct. Working from a different vantage, a political scientist, given a proper understanding of the past, has a unique opportunity to probe and question ways in which past undertakings might have been managed differently.

From a case study of the methods and proce-



During World War II, while American airmen were determinedly waging warfare in Europe and the Pacific (from Saipan, here), long-range planners were already projecting the postwar structure and status of an independent United States Air Force.

dures employed by military planners while laying the groundwork for the United States Air Force in 1943–45, Major Perry McCoy Smith seeks to provide “lessons . . . of current as well as historical interest.”† Major Smith, an Air Force fighter pilot and formerly an assistant professor of political science at the USAF Academy, concentrates on a specific group of Army Air Force planners—the Post War Division of Assistant Chief of Air Staff, Plans—and makes an effort to “see precisely the kind of problems, pitfalls, and blindspots that were experienced by U.S. military planners in their first systematic attempt to anticipate the future.” (p. 1) As the U.S. military has had a significant role in the formulation of foreign policy since World War II, Smith suggests that it is necessary to know as much as possible about how the military operates.

In his research, Major Smith worked in a rich collection of Post War Plans Division source materials in the USAF Historical Archives Branch and interviewed a number of the Air Force planners of the generation in which he is interested. He was unable to gain access to the records of the Joint Chiefs of Staff. His notes and bibliography indicate that he did not make any special use of War Department postwar planning files. In spite of these source limitations, Smith’s study has received professional acclaim from his fellow political scientists. An earlier draft of the book won an award from the American Political Science Association for the best dissertation in international relations, law, and politics written in 1967. His prestigious university publisher adds an endorsement that Smith’s “always carefully documented” findings are most pertinent since they come at a time when many Americans are gravely concerned over the “enormous influence of the military establishment on the formulation and conduct of foreign policy.”

Informed studies of the Air Force planning process have long been needed in order to increase understanding of a vitally important military function. Unhappily, however, Major Smith

does not provide such an informed analysis, chiefly because he has not made himself thoroughly familiar with the period in which his work lies. Somewhat like the anachronistic Shakespeare, who has a clock strike in Julius Caesar’s time, Smith gives signs of judging the 1943–45 period in terms of the present, both in external details and in fundamental ideas. He is at his worst when he attempts to describe the “blindspots” of AAF planners. Displaying educational bias, he says, of air planners: “Political scientists were not recruited by the Air Force, and, lacking any in-house expertise, it went without such talent in its planning.” (p. 12) And, among key air decision-makers, he finds: “None had any graduate-level experience.” (p. 109)

Smith often accepts the exposés of latter-day revisionists who erroneously claim that the U.S. Air Force leaders of World War II were little more than blind adherents to a “dogma” of bomber supremacy and strategic bombing. He asks his readers to believe that the Air Force planners and decision-makers were “anti-intellectual,” “youthful,” “politically naïve,” and even “messianic.” Obviously a fighter enthusiast, Smith intimates that the combined bomber offensive against Germany and the strategic air offensive in the Pacific were “ill conceived.” (p. 17) He poses the need for additional study of the rationale for retention of “obsolescent weapons systems,” among which are included horse cavalry, the coast artillery, and the strategic bomber. (p. 23 n) With very few exceptions, he characterizes air planners and decision-makers as “parochial,” which he defines as a “narrow view whereby a military branch or service is intolerant of criticism from other services, is extremely protective of the missions its spokesmen feel are exclusively those of their service, and is unwilling to compromise with other services on roles and missions. . . .” (p. 8) Without any supporting documentation, Smith asserts: “The records show that despite tendencies of certain Army officers, the Army generals demonstrated less parochialism during the war than did the

† Perry McCoy Smith, *The Air Force Plans for Peace, 1943–1945* (Baltimore and London: The Johns Hopkins Press, 1970, \$5.95), xii and 132 pp.

Air Force or Navy officers." (p. 9)

In almost every sentence, Smith's historical judgments are so fraught with a basic lack of understanding of air history (and with misinformation) as to defy individual rebuttal in a review of less length than the book itself. Above everything else, he is critical of what he conceives to be the inability of air leaders, including General Henry H. Arnold, to ask the key questions that could have provided proper evaluations of air power capabilities and requirements. (p. 32) But it is worth noting that Smith's own use of leading questions contributes to his own summary evaluation of AAF planning in 1943-45: "The end sought was not national security through a properly balanced military defensive and deterrent force but rather an autonomous, powerful United States Air Force which would be the first line of defense, the largest of the three military services, and the recipient of the largest share of the defense budget." (p. 116)

In final assessment, Smith conceives that the AAF planners proceeded in an "inverse fashion" by initially deciding what the outcome of their planning would be and making all their assumptions in terms of this desired end. By way of a lesson for the future, the author points out that his study shows "the difficulties of objective planning when the outputs of the planning process are determined by the policy makers before the planning begins." (p. 116)

Overall, it is impossible not to wonder whether the author was not guilty of the same thing that he attributes to AAF planners: selecting the desired outcome and then relating real and imagined facts to that outcome. Certainly a full understanding of air history on the author's part would have revealed that as a group American air leaders of the World War II generation were pragmatic rather than dogmatic men, a conclusion that is supportable both by events and by the record of sprightly arguments among airmen concerning the development and employment of air power. There was far less agreement in the prewar Air Corps than Major Smith would have one believe. While the theory of transcendent strategic bombardment was prevalent for a time during the 1930s at the Air Corps Tactical School, it was kept under chal-

lenge by fighter officers, including such influential men as Lieutenant Colonels Millard F. Harmon and A. H. Gilkeson, as well as Major Claire L. Chennault, whom Smith erroneously describes (p. 33) as the "only articulate, albeit polemical, voice for fighter aviation." At the Tactical School, moreover, both faculty and students were given utmost freedom of discussion and encouraged to challenge any idea advanced.

Whereas Smith characterizes prewar air thinking as dominated by technical and economic ideas, Major General Haywood S. Hansell, Jr., has made the salient point that one of the defects at the Air Corps Tactical School was actually a lack of technical expertise, with the result that information about important scientific possibilities—including radar, which was being developed in heavy secrecy by the U.S. Army Signal Corps rather than by the Army Air Corps as Smith implies on page 30—was blacked out. Retarded development of a long-range escort fighter, moreover, was attributable not to lack of a stated operational requirement but rather to an incorrect technical estimate that such a plane was technologically impossible. Incidentally, the British arranged to purchase the P-51 Mustang not for use as a long-range escort fighter as Smith states (p. 33) but for ground support work in their Army Cooperation Command.

In his description of General Arnold as a man solely concerned with getting advice from "physical scientists and economists" (p. 12 and elsewhere), the author plainly lacks understanding of the way in which the wartime AAF commander liked to operate. Arnold saw nothing wrong in having an operating staff with 31 individuals reporting directly to him, thus, as he said, preventing "termites" on his staff from eating up good ideas before they could get through to the top. Smith also apparently lacks information about the contributions of the distinguished diplomatic and military historian Edward Mead Earle as a member of Arnold's Committee of Operations Analysts and about the committee of distinguished American historians who made an in-depth background study of Germany for General Arnold in the winter of 1943-44.

At the same time that Major Smith trots out many of the old wives' tales about the hide-

bound mind of the prewar Air Corps, his writing suggests that he did not understand the air doctrine of World War II—doctrine that he freely characterizes as “dogma.” He would have his readers believe that the landmark air plan, AWPD-1, “Munitions Requirements of the Army Air Forces,” issued on 12 August 1941, represented a “doctrinal dedication to strategic bombardment at the expense of close air support and interdiction. . . .” (p. 28) If he had studied AWPD-1 (instead of merely citing it), he would have found that it recommended priority development of unitary air forces for sustained strategic air offensives against Germany and Japan prior to the beginning of surface campaigns. If the requirement for the surface campaigns still existed after the strategic air offensives, the planners conceived that *all* air power would be employed in support of friendly surface forces.

The Air Corps also had a far better record during the 1930s in developing support for the Army mission than Smith indicates in his incomplete little narration about liaison aviation. (pp. 98–99) It is also difficult to reconcile the author’s portrayal of Major General Laurence S. Kuter’s overpowering commitment to strategic bombardment (pp. 7–8) with his later passing acknowledgment (p. 21) that in 1943 Kuter, more than anyone else, fathered the tactical air forces for cooperative employment with the Army.

When Major Smith finally gets to his assigned task and addresses planning for the postwar Air Force in 1943–45, he appears to forget the superior relationship of the War Department General Staff to Headquarters Army Air Forces, reflecting his lack of research in War Department files. Basic policies affecting planning for the postwar air arm originated in the War Department Operations Division (OPD) and were handed down to the AAF staff level. Thus on 28 October 1943 the initial OPD guidance for the postwar permanent military establishment stated: “The primary function of the armed forces is, when called upon to do so, to support and, within the sphere of military effort, to enforce the national policy of the nation.” This basic paper further provided that a force-in-being was required “for prompt attack in any

part of the world in order to crush the very beginnings of lawless aggression, in cooperation with other peace-loving nations.” As Army Chief of Staff, General George C. Marshall endorsed this paper with a marginal notation: “I think maintenance of sizeable ground expeditionary force probably impracticable except on the basis of allotment of fillers after six months. Having air power will be the quickest remedy.”¹

In Headquarters Army Air Forces, postwar planning assumptions issued on 11 December 1943 included three basic propositions: (1) that the Air Force would be autonomous; (2) that it would be “an ‘M’ day force, instantly ready to repel attack or to quash any incipient threat to world peace”; and (3) that it would consist of a general headquarters, six air forces, and appropriate commands.² With this general guidance, the AAF Post War Division under Air Staff, Plans, was immediately responsible for drawing up future projections; but when the division’s plan was circulated throughout the Air Staff and to major Air Force commanders, a lively dialogue of diverse judgments ensued. Among other things, this dialogue riddled the OPD assumption that the air striking force would be parceled out among six air forces and dispersed at bases throughout the world. An analysis of the varying comments on postwar air plans (available in the archival files used by the author) should have convinced Major Smith that senior air officers were anything but monolithic in their thinking.

Even with the most modern scientific planning techniques, AAF planners in 1943–45 would doubtless have found their postwar planning chores very difficult. In short retrospect, in October 1945, Lieutenant General Hoyt S. Vandenberg, Assistant Chief of Air Staff, Operations, noted that the planning problem had been “approached from the wrong angle.” Vandenberg urged that a firm decision be made as to the mission and responsibilities of the Air Force, to which force requirements could be intelligently related.³ It was difficult, however, to get definitive political guidance. As Major Smith says (pp. 5–6), postwar military planning was instituted in 1943, in part because of queries from the State Department as to future worldwide airfield requirements. Nor was it as easy to

identify the Soviet Union as a future adversary as Major Smith rationalizes that it should have been. For example, a memorandum concerning fighter and bomber projections, prepared on 25 November 1944 and extensively used by Smith (pp. 23-24), included the estimate: "It would appear that, since no real basis for conflict now exists between ourselves and the Soviets other than in the ideological field, it should be possible even with bad statesmanship to avoid a clash for more than one generation."⁴

In the absence of a clear definition of foreign policy requirements for military support, General Marshall's often personal views on the future mood of the American people provided the framework for future air plans. He would not approve the concept of a large standing army in peacetime because he believed that its cost would be prohibitive, needed manpower could not be obtained by recruitment, and it would be repugnant to the American people.⁵ The initial War Department postwar force requirement, including the initial postwar Air Force (IPWAF) plan for a million-man, 105-group regular air force, paid little heed to costs, and Marshall turned it down in November 1944 with a directive for a more realistic appreciation of available resources, including an annual program of universal military training (UMT).

At this juncture, AAF planners saw usefulness in UMT for a mobilization emergency but stressed that the standing Air Force could not depend on the UMT increment to meet an M-day mission. The second AAF plan, PWAF-2, was generally similar to the IPWAF plan, but it was much less expensive. The objective was the same, but this plan assumed that political measures, including an international collective security organization, would appreciably ease the task of armed forces. PWAF-2 envisioned 75 air groups and was slated to go into effect three years after victory over Japan. In the spring of 1945 the AAF recommended a third plan, the Interim Air Force plan, calling for the maintenance of 78 groups in the three years following VJ-Day.⁶

During 1945 AAF postwar planning moved gradually to a final firm position that 70 groups would be the "bedrock minimum" size of the postwar Air Force. On 13 March, General Mar-

shall approved a basic War Department assumption that a future war would begin without declaration and with an attack against the United States but that the United States would have advance cognizance of the possibility of such a war "for at least one year" and would inaugurate preparatory measures in that year.⁷ At a meeting on 22 August, Major General Lauris Norstad, Assistant Chief of Air Staff, Plans, directed immediate preparation of a new plan for an interim and postwar Air Force in terms of the impact of nuclear weapons. A few days later, on 29 August, the Air Force set 70 air groups and 54 separate squadrons as the objective for the postwar regular air force. Major Smith records that this 70-group figure was selected on "an arbitrary basis" as a sort of planning ploy (p. 115), but in another part of his narrative (pp. 71-73) he had presented the logical rationale for the 70-group structure. It was the smallest-sized force that would provide a combat-ready M-day air striking force as well as expansion capability to meet the War Department's one-year mobilization objective. It was the smallest-sized force that would keep U.S. aircraft production in a sufficiently ready state to meet mobilization requirements. And the number of groups and squadrons would be marginally sufficient to man the bases that would be required in the western hemisphere and Pacific to meet emerging U.S. treaty responsibilities. Air Force planners were confident that the 400,000 men required could be obtained by recruitment. Once again, it is only fair to conclude that air planners were seeking pragmatic solutions to the requirements of a future that was not at all clear.

On at least three other matters, Major Smith interprets partial facts to support foregone conclusions. The charge that air planners stated requirements for a great number of worldwide bases in order to justify a large air force and that they were oriented to a flat "Mercator" view of the world (pp. 75-83) is fanciful. Here Smith ignores his own information that the 105-group IPWAF strength figure originated in OPD rather than in the Air Staff. In asserting that postwar air bases should have been concentrated in the northern hemisphere facing across the arctic toward the Soviet Union, he overlooks

military requirements elsewhere in the world. For example, the U.S. treaty with the Republic of the Philippines and the Act of Chapultepec had begun to dictate base requirements in areas quite remote from the Soviet Union. Moreover, these base matters were validated and handed down by higher authority to the Air Staff.

It is also hard to see how the air leaders "bargained away" the control of Army liaison aviation and Army antiaircraft artillery (two missions that were not under AAF control) in order to safeguard autonomy and strategic bombardment. (pp. 100–102) In regard to Smith's discussion of organic Army liaison aviation (pp. 98–99), the Air Force policy asked no more than that such organic lightplanes should be put to sustained use, that the separation of such aircraft from the mass of air power would not seriously reduce the potential of unitary air power, that the Army function would not duplicate existing capabilities of Air Force units and equipment, and that no concomitant necessity would arise for separate and extensive Army airdrome, depot, maintenance, and training facilities.⁸ The Air Force did not "give away" control of antiaircraft artillery in order, as Smith believes, to avoid incorporating nonflying officers into its personnel structure. (pp. 100–101) On the contrary, General Arnold and his staff made sustained and repeated efforts to secure the transfer of antiaircraft artillery into the new Air Force, thereby providing an integrated air defense capability. These efforts foun-

dered in December 1945 when the influential War Department reorganization board headed by Lieutenant General W. H. Simpson recommended against the transfer of antiaircraft artillery to the Air Force on the ground that it would constitute an admission that each of the armed services should be completely self-contained. Efforts of the Air Staff officers to reopen the transfer proved unsuccessful.⁹

MAJOR SMITH'S study of postwar air planning is gravely deficient in proper historical understanding of the events and persons surveyed. This lack of perspective jeopardizes the validity of lessons drawn from the narration. These faults are regrettable, since Major Smith is obviously a highly motivated officer and scholar who has advanced thoughts that are worthy of fuller and fairer development. An Air Force decision-maker *does* need to know how to ask the right questions—questions so framed as to provide full evaluation of the matter at hand. Instead of belaboring the dubious assertion that the AAF planners and decision-makers did not ask the right questions, Major Smith could have provided some more positive advice on this technique of evaluation. And, of course, technology does have a unique impact on Air Force future planning—an impact that still lacks a complete rationale. These and similar subjects could profitably be addressed—with full evaluation—by Major Smith in future studies.

Aerospace Studies Institute

Notes

1. Memo for the Chief of Staff from Major General Thomas T. Handy, Assistant CofS, Operations Division, War Department, subj: Outline of Post-War Permanent Military Establishment, 28 October 1943, with marginal comments of Gen. George C. Marshall.

2. Ltr, Maj Gen Barney M. Giles, CofAS, AAF, to Distribution, subj: Post War Air Force, 11 December 1943.

3. Memo for Assistant CofAS-5 from Lieutenant General Hoyt S. Vandenberg, Assistant CofAS-3, subj: Revision of the Seventy (70) Group Program, 6 November 1945.

4. Memo for Major General Donald Wilson from Colonel S. F. Giffin, Executive Requirements Division, Assistant CofAS Operations, Commitments, and Requirements, AAF, subj: Future Trends in Air Fighting, 25 November 1944.

5. WD News Release, Statement by General of the Army George C. Marshall, Chief of Staff, on Universal Military Training, 16 June 1945; 79th Cong, 1st Sess, *Department of Armed Forces, Department of Military Security, Hearings before the Committee on Military Affairs, U.S. Senate* (Washington: GPO, 1945), p. 49; 81st Cong, 1st Sess, *The National Defense Program—Unification and Strategy, Hearings before the Committee on Armed Services, House of*

Representatives (Washington: GPO, 1949), p. 601.

6. Memo for Arnold from Major General L. S. Kuter, Assistant CofAS Plans, subj: Status of Plans for the Post-War Air Force, 17 January 1945; Routing and Record Sheet, Lieutenant General I. C. Eaker, Deputy Commander, AAF, to Special Planning Division, WDSS, subj: The Interim Air Force, 31 May 1945.

7. WD Basic Plan for the Post-War Military Establishment, Sections I–IV and VII, approved by Chief of Staff, 13 March 1945, Section II, par 2: Nature of the Next War.

8. R&R, Brigadier General W. F. McKee, Acting Assistant CofAS, OC&R, to AAF Management Control, subj: AAF Policy Book, 26 February 1945, citing AAF Summary Sheet to G-3 WDGS and CofS, subj: Organic Assignment of Aircraft Other than to the Air Forces, 10 October 1944.

9. Report of Board of Officers on Organization of the War Department (Simpson Board), 28 December 1945, p. 14; R&R, Major General E. E. Partridge, Assistant CofAS-3 to Assistant CofAS-5, subj: Air Force Policy as to the Organization of the Antiaircraft Artillery if Integrated into the Air Forces, 1 February 1946; Daily Activity Report, Assistant CofAS-3, 12 February 1946.

THE CLASSLESS YOUNG MAN AND THE NAZIS

COLONEL JOHN L. SUTTON

DURING the immediate postwar period in Germany, when the top-ranking military and civilian officials were still prisoners, I recall a German general stating, in a curious mixture of fatigue, pride, and annoyance: "I have just finished my twenty-third interrogation." It was not a bad score; some of his colleagues, to their embarrassment, were ignored by the Allies. Not Albert Speer. Surely the most interrogated man in history, Hitler's brilliant armaments minister talked freely to an extraordinary number of people, and hundreds of thousands of his words went into the historical files.

Now Speer has written his own record for posterity.† If it contains little factual information that is truly new, it is still a unique and compelling work because of the author's close association with Hitler, his vigorous intelligence, and his undoubted attempt to be utterly honest and frank, at least as far as his own acts are concerned. So far as others are concerned, one may have the impression, as I have, that he has spared many, both living and dead. This is probably as it should be. A quarter of a century has passed. Speer himself was judged and sentenced. He obviously attempts to remain as objective as possible when he describes the actions of others.

Speer had twenty years in Spandau prison to



prepare his memoirs. He made a great many notes during the early period of his confinement, while his memory was fresh, then put the book together with additional documentation after his release in 1966. But it is more than simply his effort to present the facts; it conveys the careful reflection and self-examination which Speer had time to crystallize.

Speer takes the reader through his whole life, but mainly he concentrates on that part which followed when, as a struggling young architect of upper-middle-class origin, he became Hitler's personal architect.

After years of frustrated efforts I was wild to accomplish things—and twenty-eight years old. For the commission to do a great building, I would have sold my soul like Faust. Now I had found my Mephistopheles. He seemed no less engaging than Goethe's.

Alone among the accused at Nuremberg, Speer never tried to deny his responsibility as a member of the Nazi hierarchy, and in his memoirs he has given few occasions to impute further sins to him. His catharsis is complete, even to confessing an unsuccessful attempt early in his career to join the ss. If he sees himself in a Faustian role, at least he does not seek to draw in the entire German people to share his error.

† Albert Speer, *Inside the Third Reich* (New York: Macmillan Company, 1970, \$12.50), x and 596 pp.

The new light shed in this book probably falls upon three subjects: first, the still incredible figure of Adolf Hitler, here viewed close up and as nearly with his guard down as we shall ever see him; second, the immediate subordinates and personal staff of Hitler as they shoulder, intrigue, and claw one another for power, even to the last; and finally, the strangely out-of-place Albert Speer himself, a youthful, intense, and—even if against our will—somewhat engaging figure standing astride the whole of German industry for the critical final months of the war.

Hitler can never be satisfactorily explained; Speer adds another set of facets to him. Hitler seems to have found in Speer the accomplished architect that he himself had hoped to become. But Speer did not know Hitler in the early days of the Nazi Party, nor could he understand the motivation of this small-town Austrian of dubious parentage, incomplete schooling, and frustrated, earth-shaking dreams. Speer remains today, along with many of his countrymen, puzzled by the depth and persistence of his wartime attachment to Hitler.

The life of Hitler's official family and his "court life" were pervaded by a stifling dullness. Hitler's notion of a well-spent evening was to force his staff to watch old movies. The low level of education of most of them precluded broad interests, and intelligent conversation was a rarity. Speer could find only one illicit affair worth recounting, and this, involving Frau Goebbels, was more pathetic than titillating. More than ever it is clear that the higher echelon of the Nazi Party had small claim to misguided idealism—they were simply second-rate people. We should be accustomed to fanatical leaders and unwholesome followers in the world, yet it is disconcerting to be shown once again that a people of the Western heartland gave itself into the mercy of such a band of fanatics and mediocrities.

And Speer served them. He is not proud of it, but he does not deny it. He knew then that he was not one of them in the full sense, and he felt his detachment. And they knew he was not one of them even though he was in their midst. Hitler himself protected him; I doubt that we shall ever know quite why he did so.

As Minister of Armaments and Munitions,

Speer was the only member of the Nazi government to emerge as a success. He presided over a fantastic rise in armament production during the very months when Germany was losing the war on all other fronts and was being pounded daily by strategic bombing. The universal acclaim of Speer as a managerial genius, however, was bound to give rise to skepticism. In 1966 an article appeared asserting that Speer's predecessor, Dr. Fritz Todt, had been slighted in the accepted version of the German armament production story, in which the German war effort is divided into a blitzkrieg period and a total-war period, with the transition marked by the appointment of Speer as minister in February 1942 following the death of Todt in an aircraft accident.¹ Actually, maintains the article, the motivation toward a total-war effort came after the losses on the Russian front in January 1942 and many of the reforms attributed to Speer were begun by Todt. The U.S. Strategic Bombing Survey was the source of the overemphasis, concludes the article.

Speer never mentions this critical article, but he gives generous credit to Todt and, in a sense, goes the criticism one better by pointing out that the methods he used were actually those of World War I Minister Walther Rathenau. Apart from the praise which he has for Todt, Speer's descriptions of the habits and the decision-making apparatus of the Nazi leadership suggest an inept and corrupt group at the top, making arbitrary decisions that related more to their own careers and Nazi theology than to reality or common sense. All of this was overshadowed, of course, by the effort of all to be the servile instruments of a leader who made one capricious decision after another. One is tempted to ask whether any man of moderate executive ability, given some overall authority, would not have greatly improved the situation, much as the one-eyed man in the kingdom of the blind. Speer probably would agree with this, for he states that the production potential was there, to be actualized by efficient methods, and he further admits that where it was already organized along modern, efficient lines, as in the automobile industry, he could not greatly increase production. However, Speer's rather modest claims are consistent with the long-standing evidence that his

performance was that of an organization genius. A virtuoso performer always makes it look easy.

In one fascinating paragraph he tells part of his secret:

Aside from all organizational innovations, things went so well because I applied the methods of democratic economic leadership. The democracies were on principle committed to placing trust in the responsible businessmen as long as that trust was justified. Thus they rewarded initiative, aroused an awareness of mission, and spurred decision-making. Among us, on the other hand, such elements had long been buried. Pressure and coercion kept production going, to be sure, but destroyed all spontaneity.

He goes on to say that, paradoxically, "the Americans found themselves compelled to introduce an authoritarian stiffening into their industrial structure, whereas we tried to loosen the regimented economic system."

Speer does not reveal very much about the Luftwaffe. One might think that he would say more about Ernst Udet, the Chief of Procurement, and Hans Jeschonnek, the Chief of Staff, than to note their suicides. However, what drove these men to suicide was precisely the leadership crisis which brought Speer to stage center and kept him there. He mentions his relations with Adolf Galland, the fighter pilot, whom he describes as commanding the fighters. Actually, Galland was at that time in a staff position, a sort of inspector of fighters (*General der Jagdflieger*) and not a commander; but it must be admitted that Galland made the most of it. I do find, however, one rather strange reference which leads me to suspect that Speer had some serious reservations about the Luftwaffe leadership, quite apart from its commander, Hermann Goering. With regard to the Allied attacks on German fuel supply, Speer told Hitler in May 1944, "Our only hope is that the other side has an air force general staff as scatterbrained as ours." I do not find in Speer's previous remarks the material which would lead to this criticism, and I can only wonder at whom it was directed.

In the matter of increasing piston fighter production, miracles were achieved: production increased even faster than the bomber attacks on German industry. But production of jet fighters was another matter. Speer tells some-

thing of the struggle to produce the Me-262 jet fighter over Hitler's orders that it be a bomber, and he mentions Ernst Heinkel's urging the construction of jet aircraft in 1941.

I am reminded of my only meeting with Ernst Heinkel—it was at a reception about 1956 when I was Assistant Air Attaché in Bonn. Heinkel was then quite old and feeble, and a younger man accompanied him at social functions. Heinkel came up to me and asked if I could get photographs of two of his aircraft. "My factory and office were bombed out, you know, and I have no photos of the He-176 and He-178," he said. I thought I knew a little about the German Air Force and its aircraft, and I couldn't bring myself to admit that I had never heard of these two aircraft. So I said I would contact Washington and get whatever was available. I did, and a few weeks later I received material which showed that one of these aircraft was a turbojet fighter prototype which was flown successfully before German Air Ministry officials in the summer of 1939. The other was a rocket fighter prototype also flown successfully about that time. Yes, 1939. Had I been a person of importance, I would have taken Heinkel's request for the photos as a reminder that we were very lucky the Nazis squandered the time which German aircraft designers and builders had won for them. We of the Air Force are indeed in Hitler's debt on this matter, and I for one would not want to war-game the air struggle between Germany and the Allies in 1943–44 if the development and production of German jet aircraft had been moved up a year and a half. Though it may be little remembered today, Eighth Air Force Headquarters was anything but complacent during the fall of 1944 and spring of 1945 as German jets appeared in increasing numbers.² I thought of this in the summer of 1945 as I walked among the broken Me-262 aircraft scattered on airfields in Germany.

Finally, what can we say of Speer himself? Albert Speer was a young man prepared to enter a *Buddenbrooks* type of world that was gone when he reached for it. He found another. He does not know whom he became during the Nazi years, but he seems to feel that part of the answer is in an *Observer* article of 9 April 1944 which he once showed to Hitler:

. . . the classless young man without background, with no other original aim than to make his way in the world and no other means than his technical and managerial ability. . . . This is their age; the Hitlers and Himmlers we may get rid of, but the Speers, whatever happens to this particular special man, will long be with us.

Speer may be that man, the neutral technician, but at the end of the war he sought to be more than that. As the man of the future, he was able to reach across the Nazi men of the day and establish a kinship with other traditional elements of German society, including the German officers, the latter still bearing the marks of their feudal origins and their royal service. When Hitler ordered the scorched-earth policy and destruction of German industry, Speer began to accept orders from Hitler with one hand and to countermand them with the other. Here he found the military men ready to aid him. They had long followed a false prophet, but they were unwilling to follow his orders into a national suicide.

For Speer, this was the climax of his career.

He knew that he must do what he could to save what was left of German industry for the future. He knew equally well that he was not a man for the kind of heroics that would have removed Hitler by force or assassination, although he seriously planned it at one point. Speer was left to play a most dangerous game with Hitler—one of pleading, cajoling, reasoning (quite often falsely), to frustrate Hitler's clear and unambiguous commands to destroy German industry and transportation. Certainly Hitler himself must have been at times a conscious or unconscious partner in these deceptions, or Speer would not be alive today. Speer does not say so, but he must feel that his success in this effort was a partial repayment for his twelve years' service to the Nazis.

Albert Speer's memoirs are probably the last significant work on the Third Reich by one of its top governing group. The rest have spoken or are dead. If this is the last of the eyewitness accounts, the Nazi period now falls into the province of the historian.

Lexington, Kentucky

Notes

1. Alan S. Milward, "Fritz Todt als Minister für Bewaffnung und Munition," *Vierteljahrhefte für Zeitgeschichte*, January 1966. Milward developed this idea earlier in his book *The German Economy at War* (London: Athlone Press, 1965), pp. 63-71.

2. For example, see Wesley F. Craven and James L. Cate, *The Army Air Forces in World War II* (University of Chicago Press, 1951), Vol. III, pp. 716-17.



AT LONG LAST, A HISTORY OF THE EIGHTH AIR FORCE

DR. KENNETH PHILIP WERRELL

ON 25 April 1945, the Eighth Air Force flew its last bombing mission of World War II. That day 550 aircraft released the last of about 700,000 tons of bombs dropped by the

Eighth, and the six missing B-17s were the last of almost 6000 heavy bombers lost by that unit in the air war over Europe. In all, the Eighth lost over 9000 aircraft, along with about 44,500 men originally reported missing in action or killed, in over 523,000 effective sorties.¹

When the Eighth entered combat in the summer of 1942, it did so with equipment and a doctrine markedly different from those of either its British allies or its German foes. The Eighth's principal weapon was the heavy day bomber, the famous Boeing B-17 Flying Fortress, later joined by the Consolidated B-24 Liberator. Both were equipped with what seemed at the time to be a lavish number of .50-caliber machine guns and the ultrasecret and accurate Norden bombsight. This equipment was built and developed to implement the American concept of strategic bombing, which grew out of ideas that emerged from World War I and from such spokesmen and theorists as Britain's Hugh Trenchard, Italy's Giulio Douhet, and America's Billy Mitchell. These ideas were honed and improved by the instructors of the Air Corps Tactical School, stimulated at least in part by the technological advances of the early thirties. The strategic bombing concept that emerged was based on five assumptions, all of which would be challenged in combat:

- a war could be won by destroying key elements in a nation's economy,
- these key elements could be identified,
- bombers could economically attack the targets,
- the targets could be hit, and
- the bombs could destroy the targets.

The American strategic bombing theory stated that long-range, high-altitude, heavily armed, fast daylight bombers flying unescorted in formation could economically penetrate, accurately bomb, and thus destroy key elements of a nation's economy, causing that nation to collapse.

Established in Britain in early 1942, the Eighth Air Force flew its first heavy bomber mission on 17 August 1942. Despite British assistance, operations through that fall and winter were small, as men and equipment were diverted to TORCH (the invasion of North Africa) and the Pacific Theater. Moreover, the early bombing operations were cautious, experimen-

tal, and often directed against what were, from the aspect of the American strategic bombing theory, diversionary targets. In the summer and fall of 1943, American bombing doctrine was tested and found wanting when unescorted bombers suffered prohibitive losses on deep penetrations in daylight. By the end of 1943, the Eighth introduced into combat airborne radar, electronic countermeasures (ECM), and long-range fighter escort (made possible by fuel carried in external drop tanks) and employed what was probably the best all-round piston-powered fighter of the war, the North American P-51 Mustang. These weapons and increased strength prepared the Eighth for the decisive air battle that followed in 1944. Epitomized by Big Week in February and the battles over Berlin in March, the Eighth's fighter escort essentially drove the Luftwaffe (the German Air Force) from the sky. By April 1944 the Eighth had won air superiority. During that spring and summer the direct and indirect support of ground forces in operations such as OVERLORD (the Normandy invasion) and CROSSBOW (the campaign against German long-range secret weapons) diverted the Eighth from its strategic bombing offensive.

By fall, with large numbers of both bombers and escort fighters, trained crews, and new techniques, the Eighth had gained tactical as well as numerical superiority over the Luftwaffe. During the war the Germans improved flak and fighters and introduced new aerial tactics and equipment, of which intruders, jets, and air-to-air rockets were the most notable. It was, however, a case of too little, too late. When the Allied bombers hit full stride in mid-1944—in the ten months after 1 July 1944 American and British bombers dropped 72 percent of all their tonnage on Germany²—their attacks, especially on oil and transportation, effectively throttled the German economy and war machine. The Eighth's last strategic bombing mission on 25 April 1945 was soon followed by V-E Day, 8 May 1945.

THE EIGHTH did not fight the air war over western Europe alone but alongside British Bomber Command, American strategic bombers based in Italy, and Allied tactical air

forces. The most authoritative report on the results of the air war against Germany states:

Allied air power was decisive in the war in western Europe. Hindsight inevitably suggests that it might have been employed differently or better in some respects. Nevertheless, it was decisive. In the air, its victory was complete; at sea, its contribution, combined with naval power, brought an end to the enemy's greatest naval threat—the U-boat; on land, it helped turn the tide overwhelmingly in favor of Allied ground forces. Its power and superiority made possible the success of the invasion. It brought the economy which sustained the enemy's armed forces to virtual collapse, although the full effects of this collapse had not reached the enemy's front lines when they were overrun by Allied forces.³

The Eighth's primary accomplishment was the defeat of Germany's air force. At the same time it weakened both her industry and her war effort.

The Luftwaffe was designed as a direct army support force, and it was ill prepared—in numbers, training, and equipment—to battle in three theaters: Russia, the Mediterranean, and Western Europe. In the latter, the GAF had to meet three different threats: heavy night bombers, heavy day bombers, and fighters. The tardy mobilization of the German war economy and poor leadership hampered the Luftwaffe's efforts, but the crushing blows were delivered by the Eighth's bombers and fighters. The heavy bombers claimed destruction of over 6250 German fighters in the air, in addition to the thousands of aircraft destroyed on airfields and in factories.⁴ In the words of the USSBS report: "The attacks on German airplane production in the year 1943 and February 1944 contributed significantly to the winning of air superiority in the critical air battles of the early months of 1944."⁵ The GAF also was adversely affected by bomber attacks on transportation and oil and by certain defensive measures, such as the dispersion of industry, that these attacks prompted. Finally, the day bombers acted as a lure which enticed the German pilots into the guns of the Eighth's fighter escort.

The Eighth's fighters claimed the destruction of over 5200 German fighters in the air and over 4200 on the ground.⁶ The American fighters eventually had superior numbers, superior average pilot quality, superior tactics, superior

aircraft (with the possible exception of German jets and rockets) for fighter-to-fighter combat, superior modifications, superior equipment, and a higher order of operational and command leadership. With these, the Eighth won and retained air superiority and maintained the initiative in offensive operations.

The bombing of Germany's industry, especially oil and transportation, seriously weakened her war effort. Industry and the mobility of ground forces were hampered, as was German flying, both operational and training. "An overall shortage of aviation gasoline," USSBS reports, "resulted in the curtailment of flying training as early as 1942 and this decision was reflected in a deterioration of quality of personnel, which was the principal cause of the defeat of the German Air Force."⁷

Indirect effects of strategic bombing included dispersion of industry, which disrupted production and put further strains on German transportation. Although the Germans skillfully repaired, substituted, and improvised to keep up production, the quality of equipment declined. The result: parts that failed, artillery tubes that burst, shells that failed to explode, and aircraft that crashed. The bombing also siphoned off cannon from support of ground forces to use as flak. In a like manner, considerable manpower was tied down to man flak units (1.5 million men in Germany and the occupied countries on D-Day⁸) and to repair damage.

Although overall Allied planning for World War II called for strategic bombing of Germany, the airmen were not given free rein. Their primary objectives were to support the cross-channel invasion by defeating the Luftwaffe and to weaken German industry fatally. In accomplishing these missions, the Eighth never gave the bombing theory's main assumption, that war could be won by destroying key elements of industry, a true test. The Eighth was forced to deviate from and modify the strategic bombing theory in three other major respects as well:

First, unescorted bomber attacks proved to be too expensive. Flexible gunnery on board the aircraft was inadequate, partly because the bombing theory underestimated the power of modern interceptor aircraft and because gun

turrets and flexible gunnery training were neglected. Furthermore, the effect of radar was not considered as it was unknown when the bombing theory was formulated. In defense of the American airmen, it should be noted that some of them recognized and advocated the desirability of escort, but it was commonly believed to be technically impossible to build an aircraft with fighter performance and bomber range. The technological superiority of the bomber over the fighter in the early 1930s and a shortage of funds fostered this notion. Despite numerous studies recommending escort, attempts to produce large, multiseat escort aircraft failed (for example, the Bell XFM-1 and the converted Fortress escort, the YB-40). Only drop tanks that extended fighter range made long-range escort possible.⁹ Second, because of German defenses and weather, daylight precision bombing with the Norden bombsight could be employed in dropping only one-half of the total tonnage. Third, "pickle barrel" bombing accuracy was seldom achieved. Besides the Luftwaffe, the Eighth's other problem areas included effects of weather, deficiencies of intelligence, and crew inexperience.

The Eighth overcame these obstacles and accomplished its missions by means of a remarkable tactical development. Aircraft were modified to increase effectiveness, especially firepower and range. Certainly one of the outstanding innovations of World War II was the fighter range-extension program that produced the long-range fighter escort, with combined fighter performance and heavy-bomber range. By employing new ideas, new devices, and new techniques, the Eighth acquired adequate equipment, tactics, and organization.

The Eighth's most brilliant attribute, however, was excellent leadership, at both the command and operational levels. It proved itself, not only over the hostile skies of Europe but also in making decisions that served the entire Air Force. Thus, the Eighth carried out its assigned task by making the necessary tactical evolution. The

Eighth took what it was given, modified and used it to defeat a skilled, courageous, and potent air force, and helped defeat Germany.

FOR the twenty-five years since the Eighth Air Force fired its last shot and dropped its last bomb in the war, no individual work recorded its history. At least, this was true until the recent publication of Roger A. Freeman's *The Mighty Eighth*.[†] Of course, the official *Army Air Forces in World War II* includes the Eighth, but there its story is swallowed up in the mammoth seven volumes covering the entire war.¹⁰

The Mighty Eighth is a big book. Printed on slick paper in large format, it is generously illustrated with photographs and 14 pages of color plates. Its 236 pages of detailed text—small type on large-size paper—means a lot of prose per page, and the six appendices add 57 more pages. The author knows his subject well and has dug deep and mined much gold, putting quantities of information into print for the first time. He writes in a journalistic manner, relating an exciting story, usually in an exciting way, with detailed anecdotes that convey the action and irony, the blood and valor, the essence and reality of the Eighth's air war. For all that, *The Mighty Eighth* is not easy reading; rather it is a lengthy book, broad in scope and minute in its detail.

But a book covering such a complex subject is seldom without flaws. The greatest failing of this book is its lack of bibliographical references. Footnotes serve a number of useful functions, indicating what sources the author has used and allowing the reader to weigh and judge the author's evidence and in turn his interpretations. Footnotes also enable an interested reader to investigate further any particular point or subject. While it is obvious that "a very large number of documents and publications were researched in compiling this book," it is not acceptable for the author to excuse the lack of

[†] Roger A. Freeman, *The Mighty Eighth: A History of the U.S. 8th Army Air Force—Units, Men and Machines* (Garden City, New York: Doubleday and Company, Inc., 1970, \$14.95), 311 pp.



High over German territory a formation of Boeing B-17 Flying Fortresses of the 91st Bomb Group, Eighth Air Force, etch lacy vapor trails along the sky on a mission to Brunswick, Germany, 30 January 1944.

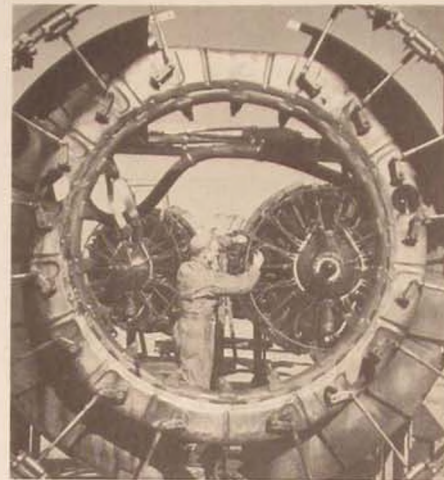
footnotes by simply stating: "space limitations, however, prevent the inclusion of bibliographical notes."¹¹ This lack considerably limits the usefulness of the book, not only to the student and scholar but to the layman as well. History requires documentation, for without it a study is incomplete.

The author's errors of commission are few, though his narrative style often bogs down under excessive detail, especially in long direct quotes. This detail contains much gore, which to some may enhance the realism but to others will be in poor taste and uncalled for. Few will quibble with the author's handling of numbers, which, as he points out, are often conflicting even in the official sources. A few minor errors of fact mar the book, but considering the sources and the scope of the subject their small number is remarkable. I mention them only to show how minor they are.

The B-17 did not stem from the Project "A" specifications noted by the author (the Boeing XB-15 did) but instead stemmed from a 1933 design competition.¹² On the ferrying of aircraft to Britain, the author's figures and dates differ from those of the official sources.¹³ Admitted German losses are indicated for several missions, but apparently the author has not consulted the English translations of Luftwaffe losses.¹⁴ In this regard he apparently relied on Adolf Galland in a number of places, for example, in using 25 as the number of German aircraft lost in the 17 August 1943 Schweinfurt-Regensburg mission.¹⁵ For that day, Field Marshal Erhard Milch stated: "Our losses are between 60 and 70 aircraft, 27 of them total losses."¹⁶ *Grossbatterien* (large batteries) were German flak emplacements of three normal batteries of up to 12 guns each, while *Doppelbatterien* were double batteries; not as the author



For every mission the Eighth Air Force flew over Germany, thousands of man-hours were spent in planning (left, showing B/G Charles Y. Banfill, M/G Orvil A. Anderson, and L/G James H. Doolittle, Commander of the Eighth), armament installation and inspection (above), engine maintenance and repair (below), and infinite other activity at more than a hundred bases across the English countryside.



describes 88mm guns "sited in groups of 12, 16, 18, or 24 (known as Grossbatteries)." ¹⁷

Several omissions must be noted.

- Lacking footnotes, a bibliography would be useful.
- It is a pity the author could not have used the official USAF victory credits that soon will be published by the USAF Historical Research Division. This listing shows different (usually lower) scores for a number of fighter pilots and changes fighter group scores as well.
- Diagrams of the complex and changing bomber formations would be welcome, as would maps. Certainly track charts of a number of the more important missions would be in order.
- This book has a curious index of 11½ pages. It is divided into 20 sections, such as Eighth Air Force Personnel, Luftwaffe Organization, and Individual Aircraft Names, but has

no index by subject.

- The author does not deal with a variety of subjects that impinge upon the history of the Eighth. For example,

- The Introduction, sketching the formation of the American bombing theory and the pre-war development of equipment, is weak, covering but two pages.

- Neither Giulio Douhet, the leading bombardment theorist, nor the Air Corps Tactical School is mentioned.

- The effect of grand strategic plans and decisions is dealt with briefly, which shortchanges the very important and pertinent subject of targeting, one of the major criticisms leveled against American strategic bombing. The author does not go deeply into the criticisms raised against the Eighth's activities, as in the raid on Dresden or other alleged instances of bombing and strafing civilians.¹⁸

• Few comparisons are drawn between the U.S. Eighth Air Force, British Bomber Command, and the German Air Force; and relatively neglected is the defeat of the German Air Force, which was not only the primary mission but the outstanding accomplishment of the Eighth.

• Conclusions (which cover only 1½ pages) and interpretations are few, as this book is primarily an operational, technical, and tactical narrative. In this area the author may be criticized by some. For example, he states that weather was the Eighth's chief obstacle, not, by implication, German fighters and flak. As another example, he states that the GAF would have been much better off had it attempted to restrict the range of the Eighth's fighter escort or pressed an intruder campaign against the unit's bases, assembly, and landing patterns.¹⁹

On the positive side, the book's emphasis is on mission narratives and anecdotes that mention numerous personnel and individual aircraft names. Units are particularly well covered, and veterans of the Eighth will find a wealth of material on their units. In this regard, the appendices on group histories and group aircraft camouflage and markings are especially useful. These entries are noteworthy not only because

they are the only published collection of such information but also because they are well done, superb in detail and completeness. The 14 pages of color plates include both the standard marking and the bizarre schemes of the B-24 assembly aircraft. Covered in other appendices are Medal of Honor winners and fighter aces.

The book is profusely illustrated with photographs, some never before published. Although a few may be meaningless, redundant, or too small, the illustrations alone are almost worth the price of the book. Mr. Freeman is to be complimented for covering not only the better known and more dramatic combat activities of the bombers and fighters but also their nonbombing missions and such diverse activities as reconnaissance, partisan supply, and leaflet operations.

The Mighty Eighth, the only published history of the Eighth Air Force, is well done and worth consulting, scanning, or reading. It is a solid account of a truly great military outfit which developed, in Freeman's closing words, "such admirable characteristics as a remarkable esprit de corps, dogged bravery and supreme determination to succeed. It was, indeed, these attributes which have so rightly conferred upon the Eighth the honour of becoming one of the most famous military organizations in history."²⁰

Radford, Virginia

Notes

1. *Statistical Summary of Eighth Air Force Operations, European Theater: 17 August 1942—8 May 1945*, pp. 16, 29, 37. Hereafter cited as *8AF Statistical Summary*. Eighth Air Force Mission Folder, 25 April 1945. Losses include aircraft missing and scrapped (Category "E").

2. The United States Strategic Bombing Survey (USSBS), *Statistical Appendix to Over-all Report (European War)*, (Washington, 1947), pp. 11, 13; USSBS, *Over-all Report (European War)*, (Washington, 1945), p. 71.

3. USSBS, *Over-all Report*, p. 107.

4. *8AF Statistical Summary*, p. 52.

5. USSBS, *Over-all Report*, p. 25.

6. *8AF Statistical Summary*, p. 52.

7. USSBS, *Over-all Report*, p. 25.

8. Hermann Goering, interrogation, 24 September 1945, p. 8.

9. Bernard L. Boylan, "The Development of the American Long-Range Escort Fighter," unpublished Ph.D. dissertation, University of Missouri, 1955, pp. 15-51. Also published as USAF Historical Study No. 136, USAF Historical Archives, Aerospace Studies Institute, Maxwell Air Force Base, Alabama.

10. Wesley F. Craven and James L. Cate, eds., 7 volumes (University of Chicago Press, 1948-1958).

11. Freeman, p. 295.

12. *Ibid.*, p. 1; Craven and Cate, I, 65-66.

13. Freeman, p. 7; Craven and Cate, I, 644.

14. Air Ministry translation VII/133-36, 138-39, 142 under the titles "Luftwaffe Losses on the Western Front," and "Luftwaffe Losses in the Area of Luftflotte Reich" for the period January through September 1944.

15. Freeman, p. 29; Adolf Galland, *The First and the Last* (New York: Holt, 1954), p. 179.

16. Speech by Field-Marshal Milch at the Conference on the Problems of Aircraft Production, 25 August 1943, Appendix 29 in Sir Charles Webster and Noble Frankland, *The Strategic Air War Against Germany, 1939-1945*, Vol. IV: *Annexes, Appendices, History of the Second World War*, United Kingdom Military Series, edited by Sir James Butler (London, 1961), p. 306.

17. Freeman, p. 176; Interrogation Report on General der Flakartillerie Walter von Axhelm, 20-31 May 1945, 5 June 1945, pp. 5, 7.

18. See, for example, David Irving's passionate but insidiously inaccurate account, *The Destruction of Dresden* (New York: Ballantine Books, Inc., 1963).

19. Freeman, p. 235.

20. *Ibid.*, p. 236.

The Contributors



LIEUTENANT COLONEL DONALD L. CLARK (M.A., George Washington University) is a Research Associate, Fletcher School of Law and Diplomacy, Tufts University. Until recently he was Chief, Communist World Branch, Air Command and Staff College, and from 1966 to 1968 he was Assistant Air Attaché in Moscow. Other assignments have been in Strategic Air Command, Air Training Command, USAF Security Service, and Hq USAF. A graduate of Squadron Officer School and ACSC, Colonel Clark is a frequent lecturer on Russia.



COLONEL RALPH L. GIDDINGS, JR., USA (Ret), (M.A., George Washington University) preceding his retirement in 1970 was Army Member of the Weapons Systems Evaluation Group. He served during World War II with the 7th Infantry Division, Pacific Theater, and subsequently in staff (Army General Staff and NORAD), advisory (Saudi Arabia), and artillery command assignments. Colonel Giddings is a frequent contributor to military journals.



COLONEL JOSEPH E. HEARN (LL.B., Memphis State University) is Staff Judge

Advocate, Hq Air University. During World War II he flew 122 combat missions with 51st and 23d Fighter Groups in China. Since returning to active duty in 1950, he has had legal assignments with Air Training Command and Air Force Systems Command and in Japan, the Philippines, Saudi Arabia, and Okinawa.



LIEUTENANT COLONEL DONALD L. STEELMAN (M.S., George Washington University) is the staff officer responsible for the Space Transportation System in the Policy and Plans Group, Directorate of Space, DCS/R&D, Hq USAF, and also serves as the Secretariat for the NASA/USAF STS Committee. He has worked in weapons development and on phases of the Atlas booster, Agena vehicle, Ranger and Mariner projects, and Gemini and Apollo programs.



CHARLES A. RUSSELL (M.A., American University), is Chief, Analysis and Dissemination Branch, Counterintelligence Division, Directorate of Special Investigations, Hq USAF. He was a special investigations officer, 1951-54. With Major Hildner, he has lectured at Air Command and Staff College and USAF Special Operations School on insurgency in the underdeveloped world and the role of counterintelligence in counter-insurgency.



MAJOR ROBERT E. HILDNER (M.S., University of Colorado) is Chief, Middle East, Africa, South Asia (MEAFSA)

Section, Analysis and Dissemination Branch, Counterintelligence Division, Directorate of Special Investigations, Hq USAF. He served in counterintelligence with OSI in Japan, 1962-65, and was Commander of the OSI Detachment at Da Nang Air Base, Vietnam, for a year preceding his current assignment in February 1970.



CAPTAIN ROBERT O. HEAVNER (USAF; M.A., Georgetown University) is an RB-57F pilot, 58th Weather Reconnaissance Squadron (MAC), Kirtland AFB, N.M. He has flown the B-57 with Air Defense Command and the 13th and 8th Tactical Bombardment Squadrons, including 285 close air support and interdiction missions in Southeast Asia. Captain Heavner was an economics and management instructor at the Air Force Academy, 1968-70, and has lectured at Air War College.



DR. JOHN J. MARSH (Ph.D., University of Northern Colorado) is a faculty member at Eastern New Mexico University and Associate Director of Project New-Gate, an educational program at New Mexico State Penitentiary. He served in the Air Force from 1944 to 1965 in personnel and administrative assignments. A graduate of Squadron Officer School, he was a captain and Executive Officer, 375th Aeromedical Transport Wing, when he retired. His articles have appeared in educational journals.



MAJORS ZEITLER, MCJOYNT, and SANCHEZ (left to right) were all members of the Air University team that helped establish the first Republic of Vietnam Air Force professional school at Nha Trang. . . . MAJOR FRAINE C. ZEITLER (B.S., University of North Dakota) is now doing graduate work at North Dakota under AFIT. A graduate of the Squadron Officer School and Academic Instructor Course, he has served as an administrative officer, a missile operations officer, and an instructor at SOS. . . . MAJOR ALBERT D. MCJOYNT (USMA; M.S., George Washington University) is Chief, Analysis and Reports, War Gaming Branch, CINCLANT. He is a pilot, and has flown with the 1370th Photo Mapping Wing. After graduating from Air Command and Staff College, he was an instructor at SOS. . . . MAJOR JOSEPH R. SANCHEZ (M.S., Troy State University) is a combat crew navigator, 22d Air Refueling Squadron (SAC), March AFB, California. A graduate of Squadron Officer School and Air Command and Staff College, he has spent most of his career as a SAC navigator.



DR. ROBERT F. FUTRELL (Ph.D., Vanderbilt University), Professor of Military

History, Aerospace Studies Institute, Air University, is author of *The United States Air Force in Korea, 1950-1953* and co-author of *The Army Air Forces in World War II* and *A History of the United States Air Force, 1907-1957*; his monograph "Ideas, Concepts, Doctrine: A History of Basic Thinking in the United States Air Force, 1907-1964" awaits publication. As adviser to Project CORONA HARVEST, he is writing a history of the USAF in Southeast Asia to February 1965.



COLONEL JOHN L. SUTTON (Ph.D., University of Geneva, Switzerland), now head of the AFROTC Department at the University of Kentucky and a former Air Force Academy professor, has spent much of his military career in Europe. His tours have been with SHAPE, U.S. Embassy in Germany, Hq USAFE, British Air Ministry, and the Institute for Strategic Studies, London. A World War II fighter pilot, Colonel Sutton has served two tours at Hq USAF in the Directorate of Plans and as an intelligence staff officer.



DR. KENNETH P. WERRELL (USAF; Ph.D., Duke University) is Associate Professor of History at Radford College, Virginia. He served five years in the Air Force, including 3½ years as a weather reconnaissance pilot in Japan. Dr. Werrell worked for two years as an Air Force contract historian, writing a history of the Eighth Air Force, and as a historian for Operations Research, Inc., Carlisle, Pennsylvania, before going to Radford in 1970.



The Air University Review Awards Committee has selected "On Behalf of Perspective" by Colonel Robert F. Hemphill, USAF (Ret), as the outstanding article in the November-December 1970 issue of the *Air University Review*.

EDITORIAL STAFF

COLONEL ELDON W. DOWNS, USAF

Editor

JACK H. MOONEY

Managing Editor

LIEUTENANT COLONEL JOHN H. SCRIVNER, JR., USAF

Associate Editor

LIEUTENANT COLONEL LAUN C. SMITH, JR., USAF

Associate Editor

EDMUND O. BARKER

Financial and Administrative Manager

JOHN A. WESTCOTT, JR.

Art Director and Production Manager

ENRIQUE GASTON

Associate Editor, Spanish Language Edition

LIA MIDOSI MAY PATTERSON

Associate Editor, Portuguese Language Edition

WILLIAM J. DEPAOLA

Art Editor and Illustrator

FIRST LIEUTENANT CLEMMER L. SLATON, USAF

Editorial Project Officer

ADVISERS

COLONEL WILLIAM R. EDGAR

Hq Tactical Air Command

COLONEL JACK L. GIANNINI

Hq Military Airlift Command

COLONEL JOHN W. KEELER

Hq Air Training Command

COLONEL JAMES F. SUNDERMAN

Hq United States Air Force Academy

COLONEL READE F. TILLEY

Hq Aerospace Defense Command

COLONEL JOHN B. VOSS

Hq Strategic Air Command

DR. HAROLD HELFMAN

Hq Air Force Systems Command

FRANCIS W. JENNINGS

SAF Office of Information

ATTENTION

Air University Review is published to stimulate professional thought concerning aerospace doctrines, strategy, tactics, and related techniques. Its contents reflect the opinions of its authors or the investigations and conclusions of its editors and are not to be construed as carrying any official sanction of the Department of the Air Force or of Air University. Informed contributions are welcomed.



UNITED
STATES
AIR FORCE
AIR UNIVERSITY
REVIEW